

# **Bt Cotton Evaluation Report (2025-26)**

**South Zone**



The Director

All India Coordinated Research Project on Cotton  
ICAR-Central Institute for Cotton Research, Nagpur  
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# **Bt Cotton Evaluation Report**

## **South Zone**

**2025-26**



**The Director**  
**ICAR-Central Institute for Cotton Research,**  
**Nagpur, Maharashtra**  
**2026**

**Citation** Waghmare, V.N., Behere, G.T., Manickam, S., Sankaranarayanan, K., Kumar, R., Sain, S.K., Raja, A.S.M., Debashis, P., and Mhatre, P.H. (2026). Bt Cotton Evaluation Report South Zone, ICAR-AICRP on Cotton, ICAR-CICR, Nagpur, pp. 544

**Published by** Dr. V. N. Waghmare,  
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Omissions and errors, if any, are not deliberate and are regretted.

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Released in the Annual Group Meeting of ICAR-AICRP on Cotton held during 02-03 April, 2026 at Nagpur, Maharashtra.

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## Initial Evaluation Trial of Intra-Hirsutum Bt Hybrids in South Zone - Irrigated

### *Constitution of Trial*

The trial was constituted with 23 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

| S. No. | Code-I | Code-II | Entries                     | Sponsored by                          |
|--------|--------|---------|-----------------------------|---------------------------------------|
| 1      | 11     | 55001   | RCH1196BGII                 | Rasi Seeds Private Limited            |
| 2      | 2      | 55002   | Core 106 BGII               | Coregenes Seed Research India Pvt Ltd |
| 3      | 25     | 55003   | NCS 9775 Bt2                | Nuziveedu Seeds Limited               |
| 4      | 3      | 55004   | RCH1199BGII                 | Rasi Seeds Private Limited            |
| 5      | 12     | 55005   | KCH9266 BGII                | Kaveri Seed Company Ltd.              |
| 6      | 19     | 55006   | C9333 BG-II                 | Mahyco Private Limited                |
| 7      | 6      | 55007   | US 722 BGII                 | SeedWorks International Limited       |
| 8      | 17     | 55008   | VPCH-456 BG II              | Vanapamula Seeds Private Limited      |
| 9      | 1      | 55009   | PCH 4996 Bt2                | Prabhat Agri Biotech Limited          |
| 10     | 20     | 55010   | ARCH 6677 BGII              | Ankur Seeds Pvt. Limited              |
| 11     | 5      | 55011   | Super-112 BGII              | Super Seeds Pvt Ltd                   |
| 12     | 4      | 55012   | <b>NBC 1821 BGII (ZC 1)</b> |                                       |
| 13     | 15     | 55013   | KSP 5328 BG II              | Kalash Seeds Pvt. Ltd.                |
| 14     | 8      | 55014   | <b>VSCH 369 BGII (ZC 2)</b> |                                       |
| 15     | 21     | 55015   | RAHH 1002 BGII              | UAS, Raichur                          |
| 16     | 16     | 55016   | DC5107 BGII                 | Rallis India Limited                  |
| 17     | 7      | 55017   | KCH9265 BGII                | Kaveri Seed Company Ltd.              |
| 18     | 14     | 55018   | US 723 BGII                 | SeedWorks International Limited       |
| 19     | 10     | 55019   | GCH 1107 BGII               | Geenex Seeds India pvt ltd            |
| 20     | 23     | 55020   | 8811-9 BGII                 | SRI RAMA AGRIC GENETICS               |
| 21     | 9      | 55021   | RAHH 1004 BGII              | UAS, Raichur                          |
| 22     | 18     | 55022   | ECH 999 BG II               | Eldorado Agritech Pvt. Ltd.           |
| 23     | 24     | 55023   | KCH9264 BGII                | Kaveri Seed Company Ltd.              |
| 24     | 13     | 55024   | DGHH- 4854 BGII             | Dhanlaxmi Crop Science Limited        |
| 25     | 22     | 55025   | PRCH 7992 Bt2               | Pravardhan Seeds (P) Limited          |

The trial was conducted in ten locations viz., Warangal, Lam, Raichur, B'Gudi\*, Coimbatore, Hyderabad (Kaveri), Warangal (Ankur), Siddipet (Seed works)\*\*, Medchal (Rallis) and Kareemnagar (Eldorado).

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

\*\*Trial was vitiated due to excessive rainfall and data was not submitted.

**Spacing:** Recommended spacing for the hybrid has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Table: Plant height (cm) at harvest in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Warangal (Ankur) | Hyderabad (Kaveri) | Medchal (Rallis) | Kareem Nagar (Eldorado) | Mean         |
|--------|-----------------------------|----------|-------|---------|------------|------------------|--------------------|------------------|-------------------------|--------------|
| 1      | RCH1196BGII                 | 109.8    | 138.6 | 128.0   | 112.9      | 135.0            | 126.0              | 152.9            | 158.3                   | <b>132.7</b> |
| 2      | Core 106 BGII               | 135.1    | 167.6 | 155.2   | 133.3      | 141.3            | 145.7              | 167.3            | 171.7                   | <b>152.2</b> |
| 3      | NCS 9775 Bt2                | 120.3    | 156.4 | 135.8   | 114.5      | 127.3            | 138.7              | 153.7            | 148.9                   | <b>137.0</b> |
| 4      | RCH1199BGII                 | 104.1    | 119.0 | 123.9   | 108.5      | 123.7            | 122.7              | 135.5            | 146.0                   | <b>122.9</b> |
| 5      | KCH9266 BGII                | 118.3    | 133.1 | 133.8   | 104.5      | 124.3            | 133.7              | 151.8            | 153.5                   | <b>131.6</b> |
| 6      | C9333 BG-II                 | 127.7    | 146.1 | 144.6   | 107.3      | 123.7            | 149.0              | 161.9            | 152.8                   | <b>139.1</b> |
| 7      | US 722 BGII                 | 127.2    | 161.3 | 138.0   | 108.3      | 126.0            | 136.3              | 161.4            | 147.2                   | <b>138.2</b> |
| 8      | VPCH-456 BG II              | 143.5    | 174.0 | 148.6   | 111.9      | 132.7            | 142.3              | 154.1            | 155.8                   | <b>145.4</b> |
| 9      | PCH 4996 Bt2                | 125.3    | 148.3 | 146.0   | 121.2      | 129.3            | 148.7              | 163.4            | 168.9                   | <b>143.9</b> |
| 10     | ARCH 6677 BGII              | 110.3    | 125.9 | 120.3   | 110.0      | 129.3            | 142.3              | 151.5            | 151.1                   | <b>130.1</b> |
| 11     | Super-112 BGII              | 133.1    | 138.3 | 133.1   | 119.6      | 131.7            | 140.3              | 173.7            | 163.3                   | <b>141.6</b> |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 110.1    | 106.4 | 142.5   | 110.7      | 123.7            | 129.3              | 153.4            | 147.5                   | <b>128.0</b> |
| 13     | KSP 5328 BG II              | 113.2    | 143.6 | 139.0   | 111.7      | 118.7            | 137.0              | 149.1            | 171.7                   | <b>135.5</b> |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 121.9    | 115.0 | 136.7   | 111.9      | 132.0            | 143.0              | 167.7            | 160.7                   | <b>136.1</b> |
| 15     | RAHH 1002 BGII              | 115.3    | 143.7 | 128.1   | 103.8      | 130.3            | 134.0              | 160.5            | 146.0                   | <b>132.7</b> |
| 16     | DC5107 BGII                 | 99.5     | 142.1 | 127.9   | 98.7       | 132.7            | 127.0              | 143.4            | 166.1                   | <b>129.7</b> |
| 17     | KCH9265 BGII                | 123.9    | 152.2 | 141.3   | 129.6      | 131.3            | 142.7              | 159.7            | 153.1                   | <b>141.7</b> |
| 18     | US 723 BGII                 | 131.6    | 187.9 | 141.5   | 117.9      | 119.7            | 134.3              | 161.4            | 150.9                   | <b>143.2</b> |
| 19     | GCH 1107 BGII               | 124.0    | 156.1 | 151.4   | 115.5      | 130.3            | 137.3              | 150.7            | 153.2                   | <b>139.8</b> |
| 20     | 8811-9 BGII                 | 129.2    | 162.5 | 145.6   | 113.6      | 124.3            | 132.7              | 163.0            | 155.8                   | <b>140.8</b> |
| 21     | RAHH 1004 BGII              | 111.8    | 125.3 | 133.5   | 95.7       | 118.0            | 130.7              | 145.3            | 151.5                   | <b>126.5</b> |
| 22     | ECH 999 BG II               | 129.6    | 143.3 | 148.5   | 114.7      | 122.0            | 141.7              | 171.7            | 164.9                   | <b>142.1</b> |
| 23     | KCH9264 BGII                | 142.1    | 133.8 | 147.3   | 106.9      | 126.0            | 135.3              | 150.7            | 163.0                   | <b>138.1</b> |
| 24     | DGHH- 4854 BGII             | 131.5    | 147.6 | 138.7   | 105.4      | 120.7            | 142.7              | 151.9            | 154.5                   | <b>136.6</b> |
| 25     | PRCH 7992 Bt2               | 140.5    | 142.4 | 163.8   | 113.1      | 126.3            | 134.3              | 171.7            | 149.1                   | <b>142.7</b> |
|        | CD @ 5%                     | 16.7     | 26.1  | 12.7    | 10.8       |                  | 3.32               | 12.2             | 17.9                    |              |
|        | CV %                        | 8.3      | 11.0  | 9.6     | 5.9        |                  | 7.47               | 4.7              | 7.0                     |              |

Table: Number of monopodia in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 1.4      | 1.8  | 1.5     | 0.8        | 2.4                 | 2.0                   | 1.6                 | 2.5                        | 1.8  |
| 2      | Core 106 BGII               | 0.6      | 1.1  | 1.3     | 0.2        | 2.3                 | 1.9                   | 0.9                 | 1.6                        | 1.2  |
| 3      | NCS 9775 Bt2                | 0.4      | 0.7  | 1.8     | 0.4        | 2.2                 | 2.1                   | 0.9                 | 0.9                        | 1.2  |
| 4      | RCH1199BGII                 | 0.8      | 2.1  | 1.8     | 0.7        | 2.0                 | 2.1                   | 1.2                 | 1.1                        | 1.5  |
| 5      | KCH9266 BGII                | 0.9      | 0.8  | 1.9     | 0.3        | 2.0                 | 2.4                   | 1.2                 | 2.7                        | 1.5  |
| 6      | C9333 BG-II                 | 0.2      | 0.8  | 1.5     | 0.3        | 1.9                 | 1.1                   | 0.8                 | 1.5                        | 1.0  |
| 7      | US 722 BGII                 | 0.9      | 1.4  | 1.9     | 0.3        | 2.2                 | 2.6                   | 1.4                 | 2.1                        | 1.6  |
| 8      | VPCH-456 BG II              | 1.6      | 2.3  | 2.3     | 0.5        | 2.4                 | 2.4                   | 1.3                 | 2.9                        | 2.0  |
| 9      | PCH 4996 Bt2                | 0.9      | 1.3  | 1.9     | 1.1        | 1.8                 | 1.8                   | 1.1                 | 2.1                        | 1.5  |
| 10     | ARCH 6677 BGII              | 0.3      | 1.3  | 1.7     | 0.4        | 1.9                 | 2.6                   | 1.2                 | 2.7                        | 1.5  |
| 11     | Super-112 BGII              | 0.5      | 1.2  | 1.7     | 0.9        | 1.6                 | 1.3                   | 1.5                 | 2.5                        | 1.4  |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 0.5      | 0.5  | 2.1     | 0.4        | 1.9                 | 1.8                   | 1.1                 | 1.3                        | 1.2  |
| 13     | KSP 5328 BG II              | 0.8      | 1.3  | 2.1     | 0.6        | 1.7                 | 1.7                   | 1.2                 | 2.2                        | 1.5  |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 0.3      | 1.0  | 1.7     | 0.5        | 1.4                 | 1.6                   | 1.0                 | 2.9                        | 1.3  |
| 15     | RAHH 1002 BGII              | 0.7      | 1.2  | 2.1     | 0.7        | 1.7                 | 1.8                   | 1.8                 | 1.1                        | 1.4  |
| 16     | DC5107 BGII                 | 0.1      | 0.8  | 2.2     | 0.2        | 1.5                 | 2.1                   | 0.9                 | 2.1                        | 1.2  |
| 17     | KCH9265 BGII                | 0.7      | 0.8  | 1.9     | 0.5        | 2.1                 | 1.8                   | 0.8                 | 2.7                        | 1.4  |
| 18     | US 723 BGII                 | 0.5      | 2.3  | 1.9     | 0.5        | 2.0                 | 1.9                   | 1.1                 | 2.7                        | 1.6  |
| 19     | GCH 1107 BGII               | 0.8      | 1.9  | 1.9     | 0.2        | 1.8                 | 2.1                   | 1.3                 | 1.8                        | 1.5  |
| 20     | 8811-9 BGII                 | 0.7      | 1.6  | 2.2     | 0.9        | 1.9                 | 1.3                   | 2.3                 | 2.0                        | 1.6  |
| 21     | RAHH 1004 BGII              | 0.7      | 0.8  | 1.5     | 0.3        | 1.8                 | 2.1                   | 0.9                 | 2.1                        | 1.3  |
| 22     | ECH 999 BG II               | 0.5      | 1.7  | 2.5     | 0.5        | 2.0                 | 1.2                   | 1.5                 | 1.7                        | 1.5  |
| 23     | KCH9264 BGII                | 0.7      | 0.3  | 1.8     | 0.4        | 1.9                 | 1.7                   | 1.2                 | 1.1                        | 1.1  |
| 24     | DGHH- 4854 BGII             | 0.7      | 1.1  | 1.3     | 0.5        | 1.7                 | 1.3                   | 0.5                 | 1.6                        | 1.1  |
| 25     | PRCH 7992 Bt2               | 0.8      | 0.7  | 1.7     | 0.1        | 1.9                 | 2.0                   | 1.0                 | 0.9                        | 1.1  |
|        | CD @ 5%                     | NS       | 0.2  | 0.3     | 0.4        |                     | 19.43                 | 0.5                 | 0.7                        |      |
|        | CV %                        | 78.1     | 10.7 | 19.5    | 41.1       |                     | 0.59                  | 26.8                | 22.5                       |      |



Table: Number of sympodia in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 15.1     | 16.6 | 16.7    | 13.4       | 20.2                | 13.5                  | 17.0                | 24.3                       | 17.1 |
| 2      | Core 106 BGII               | 17.9     | 21.1 | 22.1    | 16.7       | 20.9                | 14.6                  | 16.5                | 22.6                       | 19.1 |
| 3      | NCS 9775 Bt2                | 15.7     | 15.5 | 18.1    | 12.3       | 19.1                | 13.4                  | 15.5                | 20.1                       | 16.2 |
| 4      | RCH1199BGII                 | 14.3     | 14.9 | 16.9    | 15.7       | 18.3                | 15.3                  | 15.4                | 21.8                       | 16.6 |
| 5      | KCH9266 BGII                | 16.7     | 12.6 | 19.1    | 14.5       | 18.9                | 16.7                  | 17.4                | 21.3                       | 17.2 |
| 6      | C9333 BG-II                 | 18.0     | 16.5 | 19.5    | 13.0       | 18.2                | 17.1                  | 17.3                | 20.3                       | 17.5 |
| 7      | US 722 BGII                 | 16.4     | 17.5 | 20.2    | 13.8       | 19.1                | 14.3                  | 16.1                | 21.9                       | 17.4 |
| 8      | VPCH-456 BG II              | 16.9     | 22.6 | 21.6    | 13.5       | 17.9                | 13.2                  | 16.7                | 20.3                       | 17.8 |
| 9      | PCH 4996 Bt2                | 17.0     | 20.6 | 20.6    | 14.2       | 19.3                | 15.6                  | 17.2                | 21.0                       | 18.2 |
| 10     | ARCH 6677 BGII              | 16.5     | 17.4 | 16.2    | 13.4       | 20.7                | 14.5                  | 16.4                | 23.4                       | 17.3 |
| 11     | Super-112 BGII              | 18.8     | 17.9 | 17.2    | 14.7       | 20.5                | 16.4                  | 17.7                | 20.3                       | 17.9 |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 15.8     | 16.3 | 19.3    | 14.0       | 17.8                | 13.9                  | 15.6                | 20.9                       | 16.7 |
| 13     | KSP 5328 BG II              | 15.4     | 20.2 | 19.2    | 13.6       | 18.4                | 14.0                  | 15.0                | 21.3                       | 17.1 |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 14.7     | 21.4 | 16.5    | 13.4       | 19.0                | 14.7                  | 16.5                | 22.8                       | 17.4 |
| 15     | RAHH 1002 BGII              | 15.7     | 20.5 | 17.5    | 13.5       | 19.7                | 15.4                  | 15.9                | 20.9                       | 17.4 |
| 16     | DC5107 BGII                 | 15.9     | 21.2 | 17.5    | 12.5       | 21.7                | 13.6                  | 14.9                | 22.1                       | 17.4 |
| 17     | KCH9265 BGII                | 15.7     | 19.9 | 19.3    | 15.3       | 19.9                | 16.8                  | 17.1                | 22.3                       | 18.3 |
| 18     | US 723 BGII                 | 16.2     | 19.7 | 20.2    | 13.1       | 17.8                | 14.7                  | 16.5                | 20.6                       | 17.4 |
| 19     | GCH 1107 BGII               | 16.8     | 20.3 | 21.9    | 14.5       | 20.9                | 14.2                  | 15.5                | 19.9                       | 18.0 |
| 20     | 8811-9 BGII                 | 18.0     | 21.3 | 19.6    | 13.5       | 18.4                | 14.8                  | 17.9                | 21.8                       | 18.2 |
| 21     | RAHH 1004 BGII              | 14.2     | 21.7 | 18.3    | 13.9       | 18.5                | 14.5                  | 16.3                | 21.3                       | 17.3 |
| 22     | ECH 999 BG II               | 18.5     | 21.0 | 21.7    | 14.1       | 18.4                | 16.5                  | 16.7                | 23.5                       | 18.8 |
| 23     | KCH9264 BGII                | 17.9     | 14.3 | 21.4    | 13.2       | 17.5                | 14.0                  | 15.9                | 20.7                       | 16.9 |
| 24     | DGHH- 4854 BGII             | 15.5     | 18.2 | 19.1    | 12.5       | 17.9                | 15.0                  | 16.1                | 21.4                       | 17.0 |
| 25     | PRCH 7992 Bt2               | 18.6     | 18.4 | 24.7    | 13.5       | 18.0                | 14.3                  | 16.9                | 21.9                       | 18.3 |
|        | CD @ 5%                     | 2.7      | 3.2  | 2.1     | 2.0        |                     | 4.83                  | 1.5                 | 3.1                        |      |
|        | CV %                        | 9.9      | 10.5 | 11.5    | 8.7        |                     | 1.18                  | 5.5                 | 8.9                        |      |

Table: Boll weight (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|-----|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 4.8      | 5.6 | 6.3     | 6.2        | 4.5                 | 5.1                   | 5.3                 | 5.5                        | 5.4  |
| 2      | Core 106 BGII               | 5.1      | 6.2 | 6.2     | 5.9        | 4.7                 | 4.9                   | 5.3                 | 5.7                        | 5.5  |
| 3      | NCS 9775 Bt2                | 5.4      | 4.5 | 7.9     | 7.8        | 5.5                 | 6.9                   | 5.8                 | 5.8                        | 6.2  |
| 4      | RCH1199BGII                 | 4.4      | 4.3 | 5.8     | 5.5        | 4.3                 | 4.8                   | 4.9                 | 5.6                        | 5.0  |
| 5      | KCH9266 BGII                | 5.6      | 4.6 | 6.9     | 6.0        | 5.2                 | 6.4                   | 5.8                 | 5.6                        | 5.8  |
| 6      | C9333 BG-II                 | 5.7      | 5.1 | 7.8     | 6.7        | 5.3                 | 6.4                   | 6.4                 | 6.0                        | 6.2  |
| 7      | US 722 BGII                 | 5.4      | 6.2 | 7.2     | 6.4        | 4.6                 | 5.9                   | 5.9                 | 5.8                        | 5.9  |
| 8      | VPCH-456 BG II              | 4.4      | 6.1 | 6.3     | 5.4        | 4.6                 | 4.9                   | 4.9                 | 5.1                        | 5.2  |
| 9      | PCH 4996 Bt2                | 5.7      | 6.1 | 7.5     | 7.7        | 5.7                 | 6.1                   | 5.9                 | 6.0                        | 6.3  |
| 10     | ARCH 6677 BGII              | 5.1      | 5.5 | 7.1     | 6.3        | 5.2                 | 5.6                   | 5.6                 | 5.6                        | 5.8  |
| 11     | Super-112 BGII              | 4.8      | 4.9 | 6.4     | 5.8        | 4.6                 | 5.6                   | 5.5                 | 5.5                        | 5.4  |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 5.0      | 4.9 | 6.9     | 6.5        | 4.7                 | 6.2                   | 5.9                 | 5.4                        | 5.7  |
| 13     | KSP 5328 BG II              | 5.1      | 5.8 | 6.8     | 6.5        | 5.3                 | 5.8                   | 5.6                 | 5.7                        | 5.8  |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 5.1      | 5.6 | 6.3     | 6.0        | 4.9                 | 5.3                   | 5.4                 | 5.4                        | 5.5  |
| 15     | RAHH 1002 BGII              | 4.8      | 5.9 | 7.2     | 6.2        | 4.7                 | 5.3                   | 5.4                 | 5.5                        | 5.6  |
| 16     | DC5107 BGII                 | 5.5      | 5.7 | 7.8     | 6.8        | 5.1                 | 5.8                   | 6.1                 | 6.0                        | 6.1  |
| 17     | KCH9265 BGII                | 4.5      | 5.7 | 5.8     | 5.7        | 4.1                 | 5.4                   | 5.1                 | 5.5                        | 5.2  |
| 18     | US 723 BGII                 | 5.7      | 5.4 | 7.5     | 6.4        | 5.3                 | 5.8                   | 6.3                 | 5.9                        | 6.0  |
| 19     | GCH 1107 BGII               | 5.3      | 5.1 | 7.2     | 6.7        | 4.9                 | 6.1                   | 6.0                 | 5.5                        | 5.9  |
| 20     | 8811-9 BGII                 | 4.9      | 5.1 | 6.6     | 6.3        | 4.8                 | 5.5                   | 5.7                 | 5.6                        | 5.6  |
| 21     | RAHH 1004 BGII              | 5.7      | 5.3 | 7.4     | 6.4        | 5.3                 | 5.9                   | 6.3                 | 5.5                        | 6.0  |
| 22     | ECH 999 BG II               | 5.3      | 6.3 | 7.2     | 6.3        | 5.5                 | 5.8                   | 5.4                 | 5.9                        | 6.0  |
| 23     | KCH9264 BGII                | 5.6      | 5.4 | 6.8     | 6.2        | 5.2                 | 6.2                   | 5.9                 | 5.7                        | 5.9  |
| 24     | DGHH- 4854 BGII             | 5.3      | 5.7 | 7.8     | 6.3        | 5.0                 | 5.8                   | 6.1                 | 5.7                        | 6.0  |
| 25     | PRCH 7992 Bt2               | 5.4      | 5.3 | 7.5     | 7.0        | 4.9                 | 6.3                   | 5.6                 | 5.7                        | 6.0  |
|        | CD @ 5%                     | 0.5      | 0.6 | 0.5     | 0.4        |                     | 5.15                  | 0.4                 | 0.5                        |      |
|        | CV %                        | 5.9      | 7.1 | 7.8     | 4.1        |                     | 0.49                  | 4.8                 | 5.0                        |      |

Table: Number of bolls / plant in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 23.7     | 46.7 | 31.0    | 21.1       | 27.5                | 37.7                  | 46.7                | 55.1                       | 36.2 |
| 2      | Core 106 BGII               | 26.3     | 63.9 | 43.3    | 28.1       | 28.9                | 37.7                  | 48.9                | 55.9                       | 41.6 |
| 3      | NCS 9775 Bt2                | 19.1     | 35.3 | 37.7    | 22.1       | 25.6                | 37.3                  | 41.7                | 44.3                       | 32.9 |
| 4      | RCH1199BGII                 | 21.0     | 26.5 | 38.3    | 21.3       | 27.8                | 33.7                  | 37.9                | 39.7                       | 30.8 |
| 5      | KCH9266 BGII                | 23.2     | 38.0 | 44.7    | 20.5       | 26.1                | 42.7                  | 45.3                | 55.6                       | 37.0 |
| 6      | C9333 BG-II                 | 21.4     | 22.4 | 32.0    | 17.7       | 22.3                | 37.0                  | 41.5                | 45.4                       | 30.0 |
| 7      | US 722 BGII                 | 21.1     | 42.3 | 41.0    | 16.7       | 25.5                | 35.7                  | 47.2                | 51.7                       | 35.2 |
| 8      | VPCH-456 BG II              | 26.8     | 27.4 | 38.3    | 20.0       | 27.0                | 37.0                  | 42.9                | 52.5                       | 34.0 |
| 9      | PCH 4996 Bt2                | 22.4     | 48.9 | 36.7    | 21.4       | 26.1                | 34.7                  | 40.1                | 51.4                       | 35.2 |
| 10     | ARCH 6677 BGII              | 24.6     | 24.2 | 32.3    | 22.1       | 32.2                | 42.3                  | 47.9                | 54.8                       | 35.1 |
| 11     | Super-112 BGII              | 26.2     | 30.1 | 38.3    | 22.5       | 27.3                | 37.3                  | 47.3                | 32.7                       | 32.7 |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 17.6     | 40.1 | 39.0    | 17.2       | 22.8                | 32.7                  | 40.2                | 36.6                       | 30.8 |
| 13     | KSP 5328 BG II              | 20.1     | 53.3 | 38.7    | 20.1       | 25.9                | 39.0                  | 38.7                | 38.6                       | 34.3 |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 15.6     | 57.9 | 35.7    | 23.5       | 24.3                | 38.7                  | 43.3                | 58.1                       | 37.1 |
| 15     | RAHH 1002 BGII              | 22.0     | 58.1 | 36.7    | 20.1       | 28.4                | 36.7                  | 42.5                | 49.0                       | 36.7 |
| 16     | DC5107 BGII                 | 18.3     | 56.1 | 38.3    | 16.7       | 24.0                | 40.3                  | 42.8                | 53.5                       | 36.3 |
| 17     | KCH9265 BGII                | 21.7     | 55.7 | 38.0    | 25.3       | 30.9                | 46.7                  | 48.0                | 54.3                       | 40.1 |
| 18     | US 723 BGII                 | 17.7     | 52.8 | 38.0    | 24.0       | 22.1                | 39.0                  | 41.5                | 52.0                       | 35.9 |
| 19     | GCH 1107 BGII               | 22.3     | 59.1 | 34.0    | 20.7       | 20.5                | 35.7                  | 40.5                | 33.7                       | 33.3 |
| 20     | 8811-9 BGII                 | 21.0     | 58.9 | 36.0    | 19.9       | 27.3                | 40.7                  | 46.1                | 53.6                       | 37.9 |
| 21     | RAHH 1004 BGII              | 14.6     | 50.4 | 38.3    | 21.7       | 24.7                | 33.7                  | 36.2                | 40.7                       | 32.5 |
| 22     | ECH 999 BG II               | 23.9     | 63.5 | 45.0    | 21.8       | 25.9                | 39.0                  | 46.2                | 53.7                       | 39.9 |
| 23     | KCH9264 BGII                | 18.5     | 55.0 | 39.3    | 21.9       | 24.5                | 42.0                  | 41.5                | 47.8                       | 36.3 |
| 24     | DGHH- 4854 BGII             | 13.3     | 53.5 | 34.0    | 19.9       | 20.5                | 35.7                  | 41.9                | 45.1                       | 33.0 |
| 25     | PRCH 7992 Bt2               | 20.9     | 53.1 | 29.0    | 22.3       | 23.7                | 37.3                  | 45.5                | 36.7                       | 33.6 |
|        | CD @ 5%                     | 5.9      | 11.3 | 4.7     | NS         |                     | 5.98                  | 3.7                 | 7.0                        |      |
|        | CV %                        | 17.0     | 14.7 | 13.1    | 17.1       |                     | 3.73                  | 5.2                 | 8.9                        |      |

Table: Number of bolls / sq.m. in H X H hybrids

| S. No. | Entries                     | Lam   | Coimbatore | Hyderabad<br>(Kaveri) | Medchal (Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|-------|------------|-----------------------|------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 93.1  | 52.0       | 52.3                  | 64.9             | 87.5                       | 70.0 |
| 2      | Core 106 BGII               | 127.4 | 69.3       | 52.3                  | 68.0             | 88.8                       | 81.2 |
| 3      | NCS 9775 Bt2                | 70.3  | 54.7       | 51.9                  | 58.0             | 70.3                       | 61.0 |
| 4      | RCH1199BGII                 | 52.5  | 52.5       | 46.8                  | 52.7             | 63.0                       | 53.5 |
| 5      | KCH9266 BGII                | 77.7  | 50.7       | 59.3                  | 62.9             | 88.3                       | 67.8 |
| 6      | C9333 BG-II                 | 45.1  | 43.6       | 51.4                  | 57.7             | 72.1                       | 54.0 |
| 7      | US 722 BGII                 | 85.0  | 41.3       | 49.5                  | 65.6             | 82.1                       | 64.7 |
| 8      | VPCH-456 BG II              | 54.6  | 49.4       | 51.4                  | 59.5             | 83.4                       | 59.7 |
| 9      | PCH 4996 Bt2                | 98.6  | 52.8       | 48.1                  | 55.6             | 81.6                       | 67.3 |
| 10     | ARCH 6677 BGII              | 49.0  | 54.7       | 58.8                  | 66.5             | 87.0                       | 63.2 |
| 11     | Super-112 BGII              | 60.0  | 55.6       | 51.9                  | 65.7             | 51.9                       | 57.0 |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 80.0  | 42.5       | 45.4                  | 55.8             | 58.1                       | 56.4 |
| 13     | KSP 5328 BG II              | 105.9 | 49.7       | 54.2                  | 53.8             | 61.3                       | 65.0 |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 115.1 | 57.9       | 53.7                  | 60.2             | 92.3                       | 75.8 |
| 15     | RAHH 1002 BGII              | 115.5 | 49.5       | 50.9                  | 59.1             | 77.8                       | 70.6 |
| 16     | DC5107 BGII                 | 112.8 | 41.2       | 56.0                  | 59.4             | 85.0                       | 70.9 |
| 17     | KCH9265 BGII                | 111.7 | 62.6       | 64.8                  | 66.7             | 86.1                       | 78.4 |
| 18     | US 723 BGII                 | 104.7 | 59.3       | 54.2                  | 57.7             | 82.5                       | 71.7 |
| 19     | GCH 1107 BGII               | 118.5 | 51.0       | 49.5                  | 56.2             | 53.5                       | 65.7 |
| 20     | 8811-9 BGII                 | 117.3 | 49.1       | 56.5                  | 64.0             | 85.1                       | 74.4 |
| 21     | RAHH 1004 BGII              | 100.9 | 53.7       | 46.8                  | 50.3             | 64.7                       | 63.3 |
| 22     | ECH 999 BG II               | 127.4 | 53.8       | 54.2                  | 64.2             | 85.2                       | 77.0 |
| 23     | KCH9264 BGII                | 110.6 | 54.0       | 58.3                  | 57.7             | 75.9                       | 71.3 |
| 24     | DGHH- 4854 BGII             | 107.1 | 49.1       | 49.5                  | 58.2             | 71.5                       | 67.1 |
| 25     | PRCH 7992 Bt2               | 105.2 | 55.0       | 51.9                  | 63.2             | 58.3                       | 66.7 |
|        | CD @ 5%                     | 21.9  | NS         | 5.98                  | 5.1              | 11.1                       |      |
|        | CV %                        | 14.2  | 17.1       | 5.18                  | 5.2              | 8.9                        |      |

Table: Lint Index (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 4.9      | 5.9  | 6.2     | 6.9        | 5.3                 | 4.8                   | 5.7                 | 5.6                        | 5.7  |
| 2      | Core 106 BGII               | 6.3      | 7.2  | 6.8     | 7.5        | 5.8                 | 5.8                   | 6.5                 | 6.2                        | 6.5  |
| 3      | NCS 9775 Bt2                | 6.0      | 5.7  | 7.0     | 8.4        | 5.5                 | 5.8                   | 6.8                 | 5.9                        | 6.4  |
| 4      | RCH1199BGII                 | 5.0      | 5.6  | 6.1     | 6.9        | 5.3                 | 4.9                   | 5.9                 | 5.3                        | 5.6  |
| 5      | KCH9266 BGII                | 5.5      | 5.7  | 6.4     | 7.5        | 5.7                 | 6.2                   | 6.8                 | 5.5                        | 6.2  |
| 6      | C9333 BG-II                 | 5.8      | 5.0  | 7.8     | 8.2        | 6.5                 | 5.5                   | 7.3                 | 5.5                        | 6.5  |
| 7      | US 722 BGII                 | 4.9      | 4.8  | 5.9     | 6.8        | 4.6                 | 5.3                   | 6.6                 | 5.7                        | 5.6  |
| 8      | VPCH-456 BG II              | 5.7      | 5.6  | 6.1     | 7.1        | 5.2                 | 6.1                   | 6.0                 | 5.9                        | 6.0  |
| 9      | PCH 4996 Bt2                | 5.8      | 6.2  | 7.0     | 8.5        | 6.0                 | 6.7                   | 7.0                 | 6.2                        | 6.7  |
| 10     | ARCH 6677 BGII              | 6.2      | 5.3  | 6.7     | 8.1        | 6.0                 | 5.6                   | 6.2                 | 6.2                        | 6.3  |
| 11     | Super-112 BGII              | 5.1      | 5.6  | 5.6     | 6.5        | 5.0                 | 5.1                   | 5.5                 | 5.7                        | 5.5  |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 5.4      | 5.8  | 6.4     | 7.5        | 4.7                 | 5.3                   | 5.7                 | 6.0                        | 5.9  |
| 13     | KSP 5328 BG II              | 5.1      | 6.7  | 6.1     | 7.4        | 5.3                 | 5.7                   | 5.5                 | 5.9                        | 6.0  |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 6.1      | 6.2  | 7.1     | 8.2        | 6.2                 | 6.6                   | 6.9                 | 6.5                        | 6.7  |
| 15     | RAHH 1002 BGII              | 5.0      | 5.9  | 5.7     | 6.6        | 5.4                 | 5.6                   | 5.9                 | 5.2                        | 5.7  |
| 16     | DC5107 BGII                 | 5.4      | 6.4  | 6.0     | 7.1        | 5.3                 | 5.1                   | 6.6                 | 6.6                        | 6.1  |
| 17     | KCH9265 BGII                | 4.8      | 6.2  | 5.0     | 6.3        | 4.6                 | 5.4                   | 5.2                 | 5.1                        | 5.3  |
| 18     | US 723 BGII                 | 5.9      | 5.9  | 6.9     | 7.9        | 5.9                 | 6.0                   | 7.8                 | 6.4                        | 6.6  |
| 19     | GCH 1107 BGII               | 5.1      | 6.4  | 6.1     | 7.0        | 5.4                 | 5.3                   | 6.0                 | 5.4                        | 5.8  |
| 20     | 8811-9 BGII                 | 4.9      | 6.3  | 5.9     | 6.3        | 5.1                 | 5.0                   | 6.2                 | 5.0                        | 5.6  |
| 21     | RAHH 1004 BGII              | 5.9      | 6.1  | 6.9     | 7.9        | 5.1                 | 5.9                   | 5.7                 | 5.7                        | 6.2  |
| 22     | ECH 999 BG II               | 5.5      | 7.0  | 6.4     | 6.7        | 5.6                 | 5.2                   | 6.3                 | 6.4                        | 6.1  |
| 23     | KCH9264 BGII                | 5.7      | 6.0  | 6.3     | 7.2        | 5.3                 | 5.8                   | 6.3                 | 5.8                        | 6.1  |
| 24     | DGHH- 4854 BGII             | 4.9      | 5.8  | 7.2     | 7.1        | 5.5                 | 4.9                   | 5.7                 | 5.6                        | 5.8  |
| 25     | PRCH 7992 Bt2               | 4.9      | 6.0  | 6.5     | 7.3        | 5.1                 | 5.7                   | 6.2                 | 5.5                        | 5.9  |
|        | CD @ 5%                     | 0.7      | NS   | 0.4     | 0.6        |                     | 5.14                  | 0.7                 | 0.8                        |      |
|        | CV %                        | 7.4      | 12.9 | 6.7     | 5.1        |                     | 0.47                  | 6.6                 | 8.8                        |      |

Table: Seed Index (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 11.0     | 11.3 | 12.3    | 12.8       | 9.7                 | 9.2                   | 11.3                | 11.3                       | 11.1 |
| 2      | Core 106 BGII               | 11.1     | 12.2 | 10.6    | 11.6       | 9.4                 | 9.1                   | 11.0                | 10.7                       | 10.7 |
| 3      | NCS 9775 Bt2                | 12.6     | 12.1 | 12.8    | 13.9       | 9.9                 | 10.2                  | 11.7                | 11.0                       | 11.8 |
| 4      | RCH1199BGII                 | 10.6     | 11.7 | 11.5    | 12.2       | 9.7                 | 9.8                   | 11.3                | 11.3                       | 11.0 |
| 5      | KCH9266 BGII                | 10.2     | 11.1 | 9.9     | 11.2       | 9.2                 | 9.4                   | 10.7                | 9.3                        | 10.1 |
| 6      | C9333 BG-II                 | 12.7     | 11.4 | 13.4    | 14.2       | 11.1                | 9.9                   | 13.0                | 11.0                       | 12.1 |
| 7      | US 722 BGII                 | 11.2     | 11.0 | 10.9    | 12.4       | 8.6                 | 9.1                   | 11.3                | 10.7                       | 10.7 |
| 8      | VPCH-456 BG II              | 11.0     | 10.9 | 11.1    | 11.5       | 9.0                 | 9.9                   | 10.7                | 10.3                       | 10.6 |
| 9      | PCH 4996 Bt2                | 11.4     | 12.0 | 12.3    | 13.9       | 10.0                | 10.9                  | 11.7                | 11.3                       | 11.7 |
| 10     | ARCH 6677 BGII              | 11.4     | 11.5 | 11.3    | 12.7       | 9.5                 | 9.7                   | 11.3                | 10.3                       | 11.0 |
| 11     | Super-112 BGII              | 11.4     | 11.9 | 11.6    | 12.3       | 9.6                 | 9.7                   | 11.3                | 11.7                       | 11.2 |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 12.1     | 12.2 | 12.8    | 13.5       | 9.2                 | 9.5                   | 11.3                | 11.3                       | 11.5 |
| 13     | KSP 5328 BG II              | 11.1     | 12.2 | 11.9    | 13.3       | 10.1                | 9.9                   | 11.3                | 11.7                       | 11.4 |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 9.8      | 10.5 | 9.9     | 11.1       | 10.3                | 9.1                   | 10.0                | 9.7                        | 10.1 |
| 15     | RAHH 1002 BGII              | 11.2     | 10.6 | 11.7    | 12.6       | 10.2                | 10.1                  | 11.7                | 11.3                       | 11.2 |
| 16     | DC5107 BGII                 | 11.2     | 11.5 | 11.5    | 12.3       | 9.7                 | 9.7                   | 12.0                | 12.3                       | 11.3 |
| 17     | KCH9265 BGII                | 10.3     | 10.4 | 9.8     | 11.7       | 9.8                 | 9.3                   | 9.7                 | 10.0                       | 10.1 |
| 18     | US 723 BGII                 | 12.9     | 10.5 | 12.9    | 13.6       | 10.5                | 10.1                  | 13.0                | 12.0                       | 11.9 |
| 19     | GCH 1107 BGII               | 11.8     | 11.6 | 12.3    | 13.5       | 9.2                 | 10.2                  | 11.7                | 11.3                       | 11.5 |
| 20     | 8811-9 BGII                 | 10.8     | 11.9 | 12.1    | 12.9       | 10.0                | 9.5                   | 12.3                | 10.7                       | 11.3 |
| 21     | RAHH 1004 BGII              | 11.9     | 11.5 | 12.2    | 13.4       | 9.6                 | 10.2                  | 11.0                | 11.0                       | 11.4 |
| 22     | ECH 999 BG II               | 12.4     | 12.0 | 13.6    | 13.1       | 8.0                 | 9.7                   | 11.3                | 11.0                       | 11.4 |
| 23     | KCH9264 BGII                | 12.0     | 11.5 | 11.7    | 11.9       | 9.2                 | 9.8                   | 11.7                | 11.7                       | 11.2 |
| 24     | DGHH- 4854 BGII             | 10.8     | 10.4 | 13.0    | 12.5       | 9.5                 | 9.7                   | 11.3                | 11.0                       | 11.0 |
| 25     | PRCH 7992 Bt2               | 12.1     | 11.6 | 13.6    | 14.2       | 8.9                 | 10.0                  | 12.0                | 11.7                       | 11.8 |
|        | CD @ 5%                     | 1.3      | NS   | 0.5     | 0.9        |                     | 4.28                  | 1.1                 | 1.2                        |      |
|        | CV %                        | 7.1      | 9.9  | 4.2     | 4.4        |                     | 0.68                  | 5.8                 | 6.6                        |      |

Table: Ginning outturn (%) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 30.7     | 34.3 | 33.7    | 35.0       | 35.5                | 34.4                  | 33.6                | 32.9                       | 33.8 |
| 2      | Core 106 BGII               | 36.1     | 37.3 | 38.9    | 39.4       | 38.0                | 39.1                  | 37.1                | 36.7                       | 37.8 |
| 3      | NCS 9775 Bt2                | 32.2     | 32.3 | 35.4    | 37.6       | 35.5                | 36.4                  | 36.8                | 34.7                       | 35.1 |
| 4      | RCH1199BGII                 | 31.8     | 32.8 | 34.6    | 36.2       | 35.2                | 33.4                  | 34.1                | 31.8                       | 33.7 |
| 5      | KCH9266 BGII                | 35.2     | 34.1 | 39.2    | 40.0       | 38.3                | 39.6                  | 38.9                | 36.9                       | 37.8 |
| 6      | C9333 BG-II                 | 31.5     | 30.5 | 36.8    | 36.5       | 37.1                | 35.5                  | 35.9                | 33.3                       | 34.6 |
| 7      | US 722 BGII                 | 30.2     | 30.9 | 35.1    | 35.6       | 34.9                | 36.9                  | 36.7                | 34.9                       | 34.4 |
| 8      | VPCH-456 BG II              | 34.2     | 34.6 | 35.6    | 38.3       | 36.6                | 38.0                  | 35.9                | 36.4                       | 36.2 |
| 9      | PCH 4996 Bt2                | 33.5     | 34.3 | 36.3    | 37.8       | 37.6                | 38.1                  | 37.6                | 35.4                       | 36.3 |
| 10     | ARCH 6677 BGII              | 35.5     | 31.7 | 37.3    | 38.8       | 38.6                | 36.7                  | 35.2                | 37.7                       | 36.4 |
| 11     | Super-112 BGII              | 30.7     | 32.2 | 32.5    | 34.4       | 34.2                | 34.2                  | 32.5                | 32.9                       | 33.0 |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 30.6     | 32.4 | 33.3    | 35.5       | 34.1                | 35.7                  | 33.4                | 34.6                       | 33.7 |
| 13     | KSP 5328 BG II              | 31.6     | 35.3 | 33.9    | 35.8       | 34.5                | 36.6                  | 32.9                | 33.6                       | 34.3 |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 38.4     | 36.9 | 41.9    | 42.5       | 37.6                | 42.1                  | 40.8                | 40.2                       | 40.1 |
| 15     | RAHH 1002 BGII              | 30.6     | 35.9 | 33.0    | 34.3       | 34.8                | 35.4                  | 33.5                | 31.3                       | 33.6 |
| 16     | DC5107 BGII                 | 32.5     | 35.6 | 34.5    | 36.5       | 34.8                | 34.4                  | 35.5                | 35.0                       | 34.9 |
| 17     | KCH9265 BGII                | 31.7     | 37.2 | 33.9    | 34.9       | 36.5                | 36.7                  | 35.2                | 33.8                       | 35.0 |
| 18     | US 723 BGII                 | 31.4     | 35.9 | 34.8    | 36.9       | 35.9                | 37.3                  | 37.6                | 34.7                       | 35.6 |
| 19     | GCH 1107 BGII               | 30.3     | 35.2 | 33.1    | 34.4       | 37.1                | 34.4                  | 33.8                | 32.2                       | 33.8 |
| 20     | 8811-9 BGII                 | 31.0     | 34.8 | 32.7    | 33.0       | 34.1                | 34.4                  | 33.6                | 32.1                       | 33.2 |
| 21     | RAHH 1004 BGII              | 33.0     | 34.7 | 36.2    | 37.2       | 34.6                | 36.8                  | 34.1                | 34.2                       | 35.1 |
| 22     | ECH 999 BG II               | 30.7     | 36.8 | 32.0    | 33.9       | 36.6                | 34.8                  | 35.6                | 36.6                       | 34.6 |
| 23     | KCH9264 BGII                | 32.1     | 34.0 | 35.0    | 37.7       | 36.8                | 37.1                  | 35.2                | 33.3                       | 35.2 |
| 24     | DGHH- 4854 BGII             | 31.7     | 35.6 | 35.7    | 36.4       | 36.8                | 33.6                  | 33.6                | 33.5                       | 34.6 |
| 25     | PRCH 7992 Bt2               | 28.9     | 33.9 | 32.2    | 33.8       | 36.5                | 36.4                  | 34.1                | 31.8                       | 33.5 |
|        | CD @ 5%                     | 2.5      | NS   | 1.0     | 1.9        |                     | 2.01                  | 1.9                 | 1.8                        |      |
|        | CV %                        | 4.6      | 11.5 | 3.0     | 3.2        |                     | 1.20                  | 3.4                 | 3.3                        |      |

**Table: Upper Half Mean Length (mm) in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal (Ankur) | Hyderabad (Kaveri) | Medchal (Rallis) | Kareem Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|------------------|--------------------|------------------|-------------------------|-------------|
| 1      | RCH1196BGII                 | 30.0     | 31.5 | 33.1    | 31.8       | 29.5             | 30.4               | 30.1             | 31.6                    | <b>31.0</b> |
| 2      | Core 106 BGII               | 27.4     | 28.2 | 28.9    | 28.6       | 26.1             | 27.2               | 27.0             | 28.2                    | <b>27.7</b> |
| 3      | NCS 9775 Bt2                | 32.2     | 32.5 | 32.3    | 32.5       | 28.9             | 32.0               | 30.9             | 32.0                    | <b>31.7</b> |
| 4      | RCH1199BGII                 | 28.6     | 30.2 | 31.4    | 32.2       | 27.3             | 29.5               | 28.4             | 32.0                    | <b>30.0</b> |
| 5      | KCH9266 BGII                | 28.4     | 30.0 | 29.6    | 30.8       | 26.9             | 27.9               | 28.6             | 30.8                    | <b>29.1</b> |
| 6      | C9333 BG-II                 | 29.4     | 30.0 | 29.9    | 30.1       | 28.0             | 31.2               | 29.0             | 29.1                    | <b>29.6</b> |
| 7      | US 722 BGII                 | 28.9     | 29.2 | 30.8    | 30.0       | 26.9             | 28.7               | 28.9             | 29.0                    | <b>29.1</b> |
| 8      | VPCH-456 BG II              | 26.3     | 28.4 | 28.5    | 28.0       | 25.7             | 26.9               | 26.3             | 29.6                    | <b>27.5</b> |
| 9      | PCH 4996 Bt2                | 29.4     | 31.5 | 31.2    | 31.3       | 27.7             | 29.1               | 28.9             | 31.6                    | <b>30.1</b> |
| 10     | ARCH 6677 BGII              | 28.0     | 28.3 | 27.3    | 28.0       | 28.1             | 28.2               | 27.6             | 28.8                    | <b>28.0</b> |
| 11     | Super-112 BGII              | 31.5     | 32.9 | 33.2    | 32.4       | 29.9             | 32.0               | 30.4             | 32.8                    | <b>31.9</b> |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 28.9     | 30.6 | 30.5    | 30.8       | 26.4             | 29.6               | 28.7             | 30.3                    | <b>29.5</b> |
| 13     | KSP 5328 BG II              | 28.4     | 30.8 | 30.1    | 31.2       | 27.4             | 29.1               | 28.8             | 31.7                    | <b>29.7</b> |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 25.7     | 27.0 | 26.5    | 26.7       | 24.7             | 25.6               | 26.1             | 27.3                    | <b>26.2</b> |
| 15     | RAHH 1002 BGII              | 31.7     | 32.9 | 33.5    | 33.2       | 29.6             | 32.7               | 29.6             | 32.8                    | <b>32.0</b> |
| 16     | DC5107 BGII                 | 30.2     | 29.8 | 30.0    | 30.1       | 27.5             | 30.5               | 28.9             | 31.1                    | <b>29.8</b> |
| 17     | KCH9265 BGII                | 26.7     | 28.0 | 27.3    | 28.9       | 25.6             | 26.6               | 26.5             | 28.4                    | <b>27.3</b> |
| 18     | US 723 BGII                 | 29.6     | 30.6 | 31.5    | 31.3       | 27.8             | 31.5               | 28.7             | 32.3                    | <b>30.4</b> |
| 19     | GCH 1107 BGII               | 28.6     | 30.4 | 31.1    | 30.1       | 27.7             | 30.4               | 30.6             | 30.6                    | <b>29.9</b> |
| 20     | 8811-9 BGII                 | 29.8     | 31.0 | 32.7    | 31.6       | 29.0             | 31.0               | 30.7             | 32.6                    | <b>31.1</b> |
| 21     | RAHH 1004 BGII              | 29.1     | 30.0 | 31.0    | 29.0       | 27.4             | 29.4               | 28.8             | 30.2                    | <b>29.4</b> |
| 22     | ECH 999 BG II               | 30.0     | 30.9 | 32.9    | 31.2       | 28.4             | 31.2               | 31.1             | 32.3                    | <b>31.0</b> |
| 23     | KCH9264 BGII                | 28.1     | 30.1 | 29.2    | 29.0       | 27.9             | 28.1               | 26.9             | 30.7                    | <b>28.8</b> |
| 24     | DGHH- 4854 BGII             | 28.1     | 30.1 | 30.9    | 30.6       | 27.7             | 28.9               | 27.4             | 29.5                    | <b>29.2</b> |
| 25     | PRCH 7992 Bt2               | 29.2     | 31.5 | 30.2    | 30.9       | 27.8             | 30.3               | 28.8             | 30.3                    | <b>29.9</b> |



Table: Uniformity index under HVI Mode in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|-------------|
| 1      | RCH1196BGII                 | 83.0     | 86.0 | 86.0    | 86.4       | 83.3                | 85.0                  | 84.0                | 83.0                       | <b>84.6</b> |
| 2      | Core 106 BGII               | 84.0     | 86.0 | 85.0    | 85.9       | 83.4                | 85.0                  | 84.0                | 84.0                       | <b>84.7</b> |
| 3      | NCS 9775 Bt2                | 85.0     | 86.0 | 85.0    | 85.3       | 82.4                | 85.0                  | 83.0                | 84.0                       | <b>84.5</b> |
| 4      | RCH1199BGII                 | 84.0     | 84.0 | 86.0    | 84.4       | 82.8                | 84.0                  | 84.0                | 86.0                       | <b>84.4</b> |
| 5      | KCH9266 BGII                | 83.0     | 86.0 | 86.0    | 84.9       | 83.0                | 84.0                  | 85.0                | 85.0                       | <b>84.6</b> |
| 6      | C9333 BG-II                 | 84.0     | 84.0 | 86.0    | 85.3       | 83.6                | 86.0                  | 85.0                | 84.0                       | <b>84.7</b> |
| 7      | US 722 BGII                 | 85.0     | 85.0 | 87.0    | 85.9       | 84.0                | 85.0                  | 85.0                | 85.0                       | <b>85.2</b> |
| 8      | VPCH-456 BG II              | 81.0     | 85.0 | 85.0    | 85.7       | 82.9                | 83.0                  | 83.0                | 85.0                       | <b>83.8</b> |
| 9      | PCH 4996 Bt2                | 84.0     | 86.0 | 86.0    | 85.4       | 82.7                | 84.0                  | 84.0                | 86.0                       | <b>84.8</b> |
| 10     | ARCH 6677 BGII              | 84.0     | 85.0 | 84.0    | 84.7       | 82.1                | 84.0                  | 83.0                | 85.0                       | <b>84.0</b> |
| 11     | Super-112 BGII              | 84.0     | 86.0 | 86.0    | 85.6       | 82.8                | 85.0                  | 82.0                | 86.0                       | <b>84.7</b> |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 84.0     | 87.0 | 86.0    | 86.3       | 83.1                | 85.0                  | 84.0                | 85.0                       | <b>85.1</b> |
| 13     | KSP 5328 BG II              | 82.0     | 86.0 | 86.0    | 86.0       | 83.4                | 85.0                  | 82.0                | 86.0                       | <b>84.6</b> |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 82.0     | 84.0 | 84.0    | 85.1       | 82.7                | 83.0                  | 83.0                | 82.0                       | <b>83.2</b> |
| 15     | RAHH 1002 BGII              | 84.0     | 86.0 | 88.0    | 85.5       | 83.1                | 83.0                  | 83.0                | 85.0                       | <b>84.7</b> |
| 16     | DC5107 BGII                 | 85.0     | 84.0 | 84.0    | 84.6       | 82.5                | 84.0                  | 83.0                | 84.0                       | <b>83.9</b> |
| 17     | KCH9265 BGII                | 85.0     | 85.0 | 84.0    | 86.0       | 82.6                | 85.0                  | 84.0                | 85.0                       | <b>84.6</b> |
| 18     | US 723 BGII                 | 85.0     | 85.0 | 86.0    | 86.9       | 83.2                | 87.0                  | 84.0                | 87.0                       | <b>85.5</b> |
| 19     | GCH 1107 BGII               | 84.0     | 86.0 | 85.0    | 84.4       | 82.9                | 84.0                  | 86.0                | 85.0                       | <b>84.7</b> |
| 20     | 8811-9 BGII                 | 83.0     | 86.0 | 87.0    | 84.3       | 83.4                | 86.0                  | 85.0                | 87.0                       | <b>85.2</b> |
| 21     | RAHH 1004 BGII              | 84.0     | 85.0 | 86.0    | 84.1       | 83.0                | 85.0                  | 84.0                | 85.0                       | <b>84.5</b> |
| 22     | ECH 999 BG II               | 83.0     | 84.0 | 86.0    | 84.8       | 83.5                | 86.0                  | 85.0                | 84.0                       | <b>84.5</b> |
| 23     | KCH9264 BGII                | 82.0     | 85.0 | 85.0    | 83.9       | 83.7                | 84.0                  | 83.0                | 86.0                       | <b>84.1</b> |
| 24     | DGHH- 4854 BGII             | 82.0     | 84.0 | 86.0    | 85.2       | 83.2                | 83.0                  | 82.0                | 81.0                       | <b>83.3</b> |
| 25     | PRCH 7992 Bt2               | 83.0     | 86.0 | 86.0    | 85.5       | 83.1                | 85.0                  | 84.0                | 83.0                       | <b>84.5</b> |

Table: Micronaire under HVI Mode in H X H hybrids

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean |
|--------|-----------------------------|----------|-----|---------|------------|---------------------|-----------------------|---------------------|----------------------------|------|
| 1      | RCH1196BGII                 | 4.3      | 4.5 | 4.3     | 4.8        | 4.6                 | 3.9                   | 4.4                 | 4.3                        | 4.4  |
| 2      | Core 106 BGII               | 5.2      | 4.8 | 4.9     | 5.1        | 4.9                 | 4.1                   | 5.0                 | 5.0                        | 4.9  |
| 3      | NCS 9775 Bt2                | 4.8      | 4.8 | 4.9     | 4.8        | 4.8                 | 3.8                   | 4.4                 | 3.7                        | 4.5  |
| 4      | RCH1199BGII                 | 4.3      | 4.6 | 4.6     | 4.2        | 4.5                 | 3.8                   | 3.9                 | 4.3                        | 4.3  |
| 5      | KCH9266 BGII                | 4.9      | 4.5 | 4.8     | 4.6        | 4.6                 | 3.8                   | 4.0                 | 3.8                        | 4.4  |
| 6      | C9333 BG-II                 | 4.4      | 4.4 | 4.5     | 4.1        | 4.1                 | 3.1                   | 3.9                 | 3.3                        | 4.0  |
| 7      | US 722 BGII                 | 5.1      | 5.3 | 5.1     | 5.4        | 5.4                 | 4.2                   | 4.8                 | 4.9                        | 5.0  |
| 8      | VPCH-456 BG II              | 5.6      | 5.7 | 5.9     | 5.8        | 5.8                 | 5.4                   | 5.4                 | 5.6                        | 5.7  |
| 9      | PCH 4996 Bt2                | 5.0      | 4.8 | 4.8     | 5.0        | 5.0                 | 4.1                   | 4.2                 | 4.5                        | 4.7  |
| 10     | ARCH 6677 BGII              | 5.0      | 5.0 | 4.9     | 4.7        | 5.0                 | 4.1                   | 4.4                 | 4.7                        | 4.7  |
| 11     | Super-112 BGII              | 4.4      | 4.7 | 4.5     | 4.7        | 4.5                 | 3.8                   | 4.1                 | 4.8                        | 4.4  |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 4.5      | 4.4 | 4.5     | 4.3        | 4.6                 | 3.6                   | 3.7                 | 4.2                        | 4.2  |
| 13     | KSP 5328 BG II              | 4.2      | 4.6 | 4.1     | 4.3        | 4.7                 | 3.5                   | 3.8                 | 4.2                        | 4.2  |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 5.4      | 5.2 | 5.8     | 5.7        | 5.7                 | 4.9                   | 5.3                 | 5.3                        | 5.4  |
| 15     | RAHH 1002 BGII              | 4.5      | 4.5 | 4.6     | 4.6        | 4.5                 | 3.8                   | 4.1                 | 4.4                        | 4.4  |
| 16     | DC5107 BGII                 | 4.3      | 4.0 | 4.0     | 3.9        | 4.1                 | 3.2                   | 3.7                 | 4.0                        | 3.9  |
| 17     | KCH9265 BGII                | 5.0      | 4.9 | 5.0     | 4.9        | 4.7                 | 3.8                   | 4.6                 | 4.8                        | 4.7  |
| 18     | US 723 BGII                 | 5.2      | 5.0 | 5.6     | 5.4        | 5.3                 | 4.2                   | 5.0                 | 5.1                        | 5.1  |
| 19     | GCH 1107 BGII               | 4.3      | 4.2 | 4.2     | 3.9        | 4.4                 | 3.2                   | 3.9                 | 3.4                        | 3.9  |
| 20     | 8811-9 BGII                 | 4.6      | 4.6 | 4.2     | 4.4        | 4.6                 | 3.8                   | 4.1                 | 4.2                        | 4.3  |
| 21     | RAHH 1004 BGII              | 5.1      | 4.9 | 5.1     | 5.0        | 5.3                 | 4.1                   | 4.4                 | 4.8                        | 4.8  |
| 22     | ECH 999 BG II               | 4.4      | 4.7 | 4.3     | 4.4        | 4.8                 | 4.0                   | 4.2                 | 3.5                        | 4.3  |
| 23     | KCH9264 BGII                | 4.8      | 4.8 | 4.7     | 4.6        | 4.8                 | 3.7                   | 4.2                 | 4.5                        | 4.5  |
| 24     | DGHH- 4854 BGII             | 4.3      | 4.2 | 5.1     | 4.8        | 4.7                 | 3.5                   | 4.1                 | 4.3                        | 4.4  |
| 25     | PRCH 7992 Bt2               | 4.4      | 4.9 | 4.6     | 4.6        | 4.8                 | 3.7                   | 4.5                 | 3.6                        | 4.4  |

**Table: Tenacity under HVI Mode in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Medchal<br>(Rallis) | Kareem Nagar<br>(Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|---------------------|-----------------------|---------------------|----------------------------|-------------|
| 1      | RCH1196BGII                 | 31.7     | 33.5 | 30.2    | 31.0       | 31.3                | 28.5                  | 28.6                | 28.9                       | <b>30.5</b> |
| 2      | Core 106 BGII               | 29.7     | 30.6 | 29.7    | 26.8       | 28.9                | 26.0                  | 26.9                | 28.3                       | <b>28.4</b> |
| 3      | NCS 9775 Bt2                | 32.0     | 31.2 | 30.4    | 29.9       | 29.6                | 27.7                  | 28.9                | 30.3                       | <b>30.0</b> |
| 4      | RCH1199BGII                 | 31.4     | 33.2 | 30.9    | 33.2       | 30.5                | 31.3                  | 28.4                | 30.7                       | <b>31.2</b> |
| 5      | KCH9266 BGII                | 30.8     | 33.7 | 30.6    | 29.8       | 31.2                | 27.5                  | 29.5                | 31.5                       | <b>30.6</b> |
| 6      | C9333 BG-II                 | 32.0     | 32.7 | 32.7    | 30.5       | 33.8                | 32.9                  | 30.4                | 32.3                       | <b>32.2</b> |
| 7      | US 722 BGII                 | 29.8     | 31.7 | 30.6    | 28.3       | 32.2                | 27.7                  | 29.8                | 31.3                       | <b>30.2</b> |
| 8      | VPCH-456 BG II              | 28.1     | 31.1 | 29.6    | 26.4       | 29.1                | 25.8                  | 28.2                | 31.3                       | <b>28.7</b> |
| 9      | PCH 4996 Bt2                | 32.2     | 32.8 | 30.3    | 29.9       | 30.6                | 27.8                  | 28.4                | 33.2                       | <b>30.7</b> |
| 10     | ARCH 6677 BGII              | 30.6     | 31.0 | 29.3    | 27.5       | 30.7                | 27.5                  | 27.9                | 30.4                       | <b>29.4</b> |
| 11     | Super-112 BGII              | 32.9     | 32.1 | 30.9    | 29.8       | 31.2                | 29.1                  | 29.3                | 30.7                       | <b>30.8</b> |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 29.7     | 33.1 | 31.2    | 30.6       | 31.6                | 28.5                  | 29.9                | 33.0                       | <b>31.0</b> |
| 13     | KSP 5328 BG II              | 31.1     | 33.6 | 31.9    | 28.9       | 31.5                | 29.1                  | 29.2                | 33.0                       | <b>31.0</b> |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 27.6     | 27.8 | 26.2    | 25.4       | 28.2                | 25.2                  | 25.8                | 28.2                       | <b>26.8</b> |
| 15     | RAHH 1002 BGII              | 32.3     | 31.8 | 31.2    | 30.2       | 31.1                | 28.1                  | 31.0                | 30.9                       | <b>30.8</b> |
| 16     | DC5107 BGII                 | 30.9     | 30.3 | 28.9    | 29.5       | 29.5                | 28.2                  | 29.3                | 31.8                       | <b>29.8</b> |
| 17     | KCH9265 BGII                | 28.6     | 30.4 | 30.5    | 28.5       | 30.7                | 28.3                  | 28.5                | 31.9                       | <b>29.7</b> |
| 18     | US 723 BGII                 | 31.7     | 34.2 | 32.1    | 28.5       | 29.4                | 29.5                  | 28.2                | 33.8                       | <b>30.9</b> |
| 19     | GCH 1107 BGII               | 30.8     | 30.7 | 29.3    | 29.9       | 30.4                | 28.0                  | 29.2                | 30.8                       | <b>29.9</b> |
| 20     | 8811-9 BGII                 | 31.8     | 34.5 | 32.9    | 29.5       | 31.3                | 29.4                  | 30.3                | 33.3                       | <b>31.6</b> |
| 21     | RAHH 1004 BGII              | 30.9     | 30.6 | 30.5    | 27.6       | 29.7                | 27.0                  | 28.0                | 31.1                       | <b>29.4</b> |
| 22     | ECH 999 BG II               | 31.9     | 33.9 | 31.5    | 30.0       | 30.7                | 30.1                  | 30.8                | 30.5                       | <b>31.2</b> |
| 23     | KCH9264 BGII                | 30.4     | 31.2 | 28.6    | 29.0       | 31.8                | 27.1                  | 28.7                | 30.3                       | <b>29.6</b> |
| 24     | DGHH- 4854 BGII             | 31.0     | 30.0 | 32.2    | 28.6       | 29.7                | 26.8                  | 27.0                | 27.9                       | <b>29.2</b> |
| 25     | PRCH 7992 Bt2               | 31.5     | 31.4 | 31.2    | 28.9       | 30.1                | 28.8                  | 27.5                | 30.0                       | <b>29.9</b> |

**Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Warangal (Ankur) | Hyderabad (Kaveri) | Medchal (Rallis) | Kareem Nagar (Eldorado) | Mean         |
|--------|-----------------------------|----------|-------|------------|------------------|--------------------|------------------|-------------------------|--------------|
| 1      | RCH1196BGII                 | 5.76     | 18.33 | 22.68      | 14.18            | 19.33              | 12.71            | 16.44                   | <b>15.63</b> |
| 2      | Core 106 BGII               | 6.17     | 22.94 | 27.05      | 13.03            | 19.84              | 14.88            | 15.46                   | <b>17.05</b> |
| 3      | NCS 9775 Bt2                | 5.20     | 17.22 | 20.93      | 10.95            | 22.45              | 13.55            | 14.30                   | <b>14.94</b> |
| 4      | RCH1199BGII                 | 5.03     | 16.67 | 20.43      | 9.49             | 17.92              | 9.99             | 14.24                   | <b>13.40</b> |
| 5      | KCH9266 BGII                | 7.31     | 17.30 | 23.48      | 13.17            | 24.09              | 13.31            | 15.69                   | <b>16.34</b> |
| 6      | C9333 BG-II                 | 5.97     | 17.14 | 22.51      | 11.61            | 19.16              | 13.50            | 13.75                   | <b>14.81</b> |
| 7      | US 722 BGII                 | 5.98     | 14.84 | 18.74      | 13.09            | 20.64              | 14.25            | 16.08                   | <b>14.80</b> |
| 8      | VPCH-456 BG II              | 5.49     | 13.33 | 19.39      | 14.39            | 21.01              | 14.46            | 10.95                   | <b>14.15</b> |
| 9      | PCH 4996 Bt2                | 6.08     | 17.86 | 26.88      | 13.40            | 21.20              | 12.81            | 14.11                   | <b>16.05</b> |
| 10     | ARCH 6677 BGII              | 4.79     | 17.50 | 23.01      | 15.74            | 24.25              | 13.92            | 14.33                   | <b>16.22</b> |
| 11     | Super-112 BGII              | 7.12     | 16.83 | 25.60      | 11.59            | 19.18              | 12.31            | 10.36                   | <b>14.71</b> |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 3.86     | 16.59 | 18.01      | 10.13            | 18.52              | 11.18            | 11.95                   | <b>12.89</b> |
| 13     | KSP 5328 BG II              | 4.57     | 20.87 | 21.39      | 10.21            | 23.36              | 10.14            | 13.97                   | <b>14.93</b> |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 4.23     | 19.52 | 22.08      | 9.31             | 21.82              | 12.21            | 18.19                   | <b>15.34</b> |
| 15     | RAHH 1002 BGII              | 4.97     | 19.52 | 16.58      | 12.00            | 18.83              | 10.35            | 14.56                   | <b>13.83</b> |
| 16     | DC5107 BGII                 | 5.35     | 20.56 | 23.72      | 10.67            | 21.99              | 14.66            | 16.96                   | <b>16.27</b> |
| 17     | KCH9265 BGII                | 6.61     | 18.89 | 31.23      | 15.02            | 22.87              | 14.10            | 14.19                   | <b>17.56</b> |
| 18     | US 723 BGII                 | 4.74     | 18.97 | 22.28      | 11.35            | 21.61              | 13.24            | 16.19                   | <b>15.48</b> |
| 19     | GCH 1107 BGII               | 4.31     | 19.52 | 24.49      | 10.59            | 19.67              | 11.35            | 10.60                   | <b>14.36</b> |
| 20     | 8811-9 BGII                 | 7.62     | 20.48 | 17.41      | 11.33            | 21.76              | 13.69            | 15.52                   | <b>15.40</b> |
| 21     | RAHH 1004 BGII              | 4.29     | 18.97 | 18.98      | 9.86             | 18.92              | 10.85            | 12.15                   | <b>13.43</b> |
| 22     | ECH 999 BG II               | 5.61     | 23.10 | 20.95      | 11.82            | 21.92              | 14.70            | 16.94                   | <b>16.43</b> |
| 23     | KCH9264 BGII                | 7.25     | 20.16 | 24.40      | 11.96            | 23.69              | 12.72            | 14.07                   | <b>16.32</b> |
| 24     | DGHH- 4854 BGII             | 4.10     | 18.65 | 18.40      | 10.90            | 15.73              | 11.77            | 15.32                   | <b>13.55</b> |
| 25     | PRCH 7992 Bt2               | 5.19     | 19.44 | 23.78      | 6.89             | 19.19              | 14.57            | 11.96                   | <b>14.43</b> |
|        | CD @ 5%                     | 1.93     | 4.29  | 4.40       |                  | 5.22               | 1.80             | 2.23                    |              |
|        | CV %                        | 21.24    | 14.01 | 11.97      |                  | 1.78               | 8.52             | 9.47                    |              |

**Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Warangal (Ankur) | Hyderabad (Kaveri) | Medchal (Rallis) | Kareem Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|-------|------------|------------------|--------------------|------------------|-------------------------|-------------|
| 1      | RCH1196BGII                 | 6.20     | 12.22 | 8.15       | 2.11             | 5.61               | 8.87             | 8.86                    | <b>7.43</b> |
| 2      | Core 106 BGII               | 8.34     | 15.29 | 15.14      | 1.85             | 6.04               | 8.26             | 9.78                    | <b>9.24</b> |
| 3      | NCS 9775 Bt2                | 6.23     | 11.48 | 13.83      | 1.77             | 5.16               | 8.06             | 7.87                    | <b>7.77</b> |
| 4      | RCH1199BGII                 | 6.13     | 11.11 | 7.70       | 1.78             | 4.76               | 6.03             | 7.02                    | <b>6.36</b> |
| 5      | KCH9266 BGII                | 8.88     | 11.53 | 10.00      | 2.88             | 8.63               | 8.89             | 8.58                    | <b>8.48</b> |
| 6      | C9333 BG-II                 | 6.10     | 11.43 | 9.59       | 2.06             | 5.24               | 7.47             | 8.70                    | <b>7.23</b> |
| 7      | US 722 BGII                 | 7.09     | 9.89  | 10.66      | 1.94             | 5.57               | 8.43             | 8.90                    | <b>7.50</b> |
| 8      | VPCH-456 BG II              | 8.19     | 8.89  | 14.44      | 1.91             | 5.07               | 5.95             | 12.10                   | <b>8.08</b> |
| 9      | PCH 4996 Bt2                | 8.95     | 11.90 | 12.02      | 1.70             | 4.86               | 6.93             | 10.73                   | <b>8.16</b> |
| 10     | ARCH 6677 BGII              | 7.57     | 11.67 | 6.42       | 2.51             | 8.65               | 7.14             | 11.26                   | <b>7.89</b> |
| 11     | Super-112 BGII              | 5.80     | 11.22 | 9.09       | 2.55             | 7.35               | 6.79             | 7.71                    | <b>7.22</b> |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 5.47     | 11.06 | 9.34       | 1.98             | 5.26               | 7.91             | 6.83                    | <b>6.84</b> |
| 13     | KSP 5328 BG II              | 4.28     | 13.92 | 9.51       | 2.34             | 4.88               | 6.97             | 6.55                    | <b>6.92</b> |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 4.06     | 13.02 | 13.83      | 2.34             | 6.22               | 8.85             | 6.76                    | <b>7.87</b> |
| 15     | RAHH 1002 BGII              | 6.21     | 13.02 | 12.76      | 2.70             | 5.11               | 6.74             | 8.51                    | <b>7.86</b> |
| 16     | DC5107 BGII                 | 8.34     | 13.70 | 5.14       | 2.08             | 7.18               | 8.79             | 8.28                    | <b>7.64</b> |
| 17     | KCH9265 BGII                | 8.30     | 12.59 | 8.40       | 2.89             | 8.92               | 9.71             | 10.82                   | <b>8.80</b> |
| 18     | US 723 BGII                 | 6.28     | 12.65 | 15.60      | 1.57             | 5.02               | 8.95             | 8.31                    | <b>8.34</b> |
| 19     | GCH 1107 BGII               | 6.04     | 13.02 | 10.49      | 2.00             | 5.77               | 6.81             | 7.79                    | <b>7.42</b> |
| 20     | 8811-9 BGII                 | 5.31     | 13.65 | 11.73      | 2.37             | 7.29               | 8.81             | 8.03                    | <b>8.17</b> |
| 21     | RAHH 1004 BGII              | 3.70     | 12.65 | 9.51       | 2.41             | 4.90               | 6.60             | 8.88                    | <b>6.95</b> |
| 22     | ECH 999 BG II               | 6.77     | 15.40 | 14.36      | 2.97             | 5.51               | 8.99             | 8.24                    | <b>8.89</b> |
| 23     | KCH9264 BGII                | 6.54     | 13.44 | 4.36       | 3.02             | 8.96               | 9.30             | 9.40                    | <b>7.86</b> |
| 24     | DGHH- 4854 BGII             | 4.20     | 12.43 | 8.27       | 1.78             | 7.19               | 8.03             | 7.39                    | <b>7.04</b> |
| 25     | PRCH 7992 Bt2               | 6.54     | 12.96 | 14.94      | 2.55             | 7.25               | 8.24             | 8.92                    | <b>8.77</b> |
|        | CD @ 5%                     | 2.21     | 2.84  | 3.40       |                  | 20.22              | 1.26             | 1.38                    |             |
|        | CV %                        | 20.79    | 13.92 | 20.13      |                  | 2.08               | 9.74             | 9.75                    |             |

**Table: Total Seed Cotton Yield (q/ha) in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Warangal (Ankur) | Hyderabad (Kaveri) | Medchal (Rallis) | Kareem Nagar (Eldorado) | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|----------|-------|---------|------------|------------------|--------------------|------------------|-------------------------|--------------|------|-----------------------|
| 1      | RCH1196BGII                 | 11.97    | 30.56 | 25.82   | 30.83      | 16.24            | 24.94              | 21.58            | 25.30                   | <b>23.41</b> | 18   | -6.0                  |
| 2      | Core 106 BGII               | 14.52    | 38.23 | 35.16   | 42.19      | 15.06            | 25.87              | 23.14            | 25.23                   | <b>27.43</b> | 1    | 10.1                  |
| 3      | NCS 9775 Bt2                | 11.42    | 28.70 | 32.40   | 34.75      | 13.40            | 27.61              | 21.61            | 22.17                   | <b>24.01</b> | 14   | -3.6                  |
| 4      | RCH1199BGII                 | 11.16    | 27.78 | 28.24   | 28.13      | 11.34            | 22.68              | 16.02            | 21.26                   | <b>20.83</b> | 25   | -16.4                 |
| 5      | KCH9266 BGII                | 16.19    | 28.84 | 37.14   | 33.48      | 16.07            | 32.72              | 22.21            | 24.28                   | <b>26.37</b> | 4    | 5.9                   |
| 6      | C9333 BG-II                 | 12.07    | 28.57 | 28.78   | 32.10      | 13.99            | 24.40              | 20.97            | 22.45                   | <b>22.92</b> | 21   | -8.0                  |
| 7      | US 722 BGII                 | 13.07    | 24.74 | 38.02   | 29.40      | 12.93            | 26.21              | 22.68            | 24.99                   | <b>24.01</b> | 15   | -3.6                  |
| 8      | VPCH-456 BG II              | 13.68    | 22.22 | 38.29   | 33.83      | 17.45            | 26.09              | 20.40            | 23.06                   | <b>24.38</b> | 13   | -2.1                  |
| 9      | PCH 4996 Bt2                | 15.02    | 29.76 | 39.18   | 38.90      | 14.43            | 26.06              | 19.74            | 24.83                   | <b>25.99</b> | 5    | 4.4                   |
| 10     | ARCH 6677 BGII              | 12.36    | 29.17 | 35.00   | 29.43      | 19.02            | 32.90              | 21.06            | 25.59                   | <b>25.57</b> | 8    | 2.7                   |
| 11     | Super-112 BGII              | 12.92    | 28.04 | 36.42   | 34.69      | 14.55            | 26.53              | 19.10            | 18.07                   | <b>23.79</b> | 16   | -4.5                  |
| 12     | <b>NBC 1821 BGII (ZC 1)</b> | 9.33     | 27.65 | 36.10   | 27.35      | 11.63            | 23.78              | 19.09            | 18.78                   | <b>21.71</b> | 23   | -12.8                 |
| 13     | KSP 5328 BG II              | 8.85     | 34.79 | 36.20   | 30.89      | 13.22            | 28.23              | 17.11            | 20.52                   | <b>23.73</b> | 17   | -4.7                  |
| 14     | <b>VSCH 369 BGII (ZC 2)</b> | 8.29     | 32.54 | 36.76   | 35.91      | 11.68            | 28.04              | 21.06            | 24.95                   | <b>24.90</b> | 11   | 0.0                   |
| 15     | RAHH 1002 BGII              | 11.18    | 32.54 | 33.79   | 29.34      | 13.73            | 23.94              | 17.09            | 23.06                   | <b>23.08</b> | 19   | -7.3                  |
| 16     | DC5107 BGII                 | 13.69    | 34.26 | 36.42   | 28.86      | 11.16            | 29.17              | 23.45            | 25.24                   | <b>25.28</b> | 9    | 1.5                   |
| 17     | KCH9265 BGII                | 14.92    | 31.48 | 31.64   | 39.62      | 17.69            | 31.79              | 23.81            | 25.01                   | <b>27.00</b> | 2    | 8.4                   |
| 18     | US 723 BGII                 | 11.02    | 31.61 | 37.41   | 37.88      | 14.53            | 26.63              | 22.19            | 24.50                   | <b>25.72</b> | 7    | 3.3                   |
| 19     | GCH 1107 BGII               | 10.35    | 32.54 | 32.06   | 34.98      | 12.12            | 25.44              | 18.16            | 18.39                   | <b>23.01</b> | 20   | -7.6                  |
| 20     | 8811-9 BGII                 | 12.93    | 34.13 | 32.73   | 29.14      | 14.17            | 29.05              | 22.50            | 23.54                   | <b>24.77</b> | 12   | -0.5                  |
| 21     | RAHH 1004 BGII              | 7.99     | 31.61 | 38.96   | 28.49      | 12.63            | 23.82              | 17.46            | 21.03                   | <b>22.75</b> | 22   | -8.6                  |
| 22     | ECH 999 BG II               | 12.38    | 38.49 | 37.53   | 35.32      | 14.74            | 27.43              | 23.69            | 25.18                   | <b>26.85</b> | 3    | 7.8                   |
| 23     | KCH9264 BGII                | 13.78    | 33.60 | 35.47   | 28.76      | 16.33            | 32.66              | 22.02            | 23.47                   | <b>25.76</b> | 6    | 3.5                   |
| 24     | DGHH- 4854 BGII             | 8.30     | 31.08 | 29.94   | 26.67      | 12.19            | 22.92              | 19.80            | 22.71                   | <b>21.70</b> | 24   | -12.8                 |
| 25     | PRCH 7992 Bt2               | 11.73    | 32.41 | 33.91   | 38.72      | 12.85            | 26.44              | 22.81            | 20.88                   | <b>24.97</b> | 10   | 0.3                   |
|        | CD @ 5%                     | 3.06     | 7.11  | 3.19    | 4.90       | 2.57             | 6.18               | 2.70             | 2.73                    |              |      |                       |
|        | CV %                        | 15.53    | 13.93 | 9.73    | 9.07       | 11.17            | 2.74               | 7.92             | 7.23                    |              |      |                       |

## Evaluation under Protected Condition for Insect pests

### Reaction to Insect Pest

**Table: Initial H X H trial in South Zone under Protected Conditions –Aphid**

| Name of Entry               | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------------|-----------------------------------|------|------|------|-------------|-------------|
|                             | GU                                | RA   | CBE  | WR   | Mean        |             |
| RCH1196BGII                 | 0.70                              | 1.31 | 2.54 | 6.33 | <b>2.72</b> | <b>BETL</b> |
| Core 106 BGII               | 1.03                              | 1.17 | 3.08 | 4.68 | <b>2.49</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 1.40                              | 1.07 | 2.64 | 5.84 | <b>2.74</b> | <b>BETL</b> |
| RCH1199BGII                 | 0.87                              | 1.01 | 2.81 | 5.13 | <b>2.45</b> | <b>BETL</b> |
| KCH9266 BGII                | 1.13                              | 1.26 | 2.75 | 4.73 | <b>2.47</b> | <b>BETL</b> |
| C9333 BG-II                 | 0.63                              | 0.86 | 3.61 | 5.51 | <b>2.65</b> | <b>BETL</b> |
| US 722 BGII                 | 1.50                              | 1.17 | 1.56 | 5.93 | <b>2.54</b> | <b>BETL</b> |
| VPCH-456 BG II              | 1.20                              | 1.70 | 2.27 | 5.40 | <b>2.64</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 1.23                              | 1.62 | 1.98 | 5.96 | <b>2.70</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 0.87                              | 1.74 | 3.24 | 6.31 | <b>3.04</b> | <b>BETL</b> |
| Super-112 BGII              | 0.77                              | 0.82 | 2.88 | 5.09 | <b>2.39</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 1.40                              | 1.14 | 1.91 | 4.89 | <b>2.34</b> | <b>BETL</b> |
| KSP 5328 BG II              | 2.10                              | 1.13 | 3.24 | 5.11 | <b>2.90</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 1.20                              | 1.80 | 2.57 | 5.58 | <b>2.79</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 1.27                              | 1.44 | 2.81 | 4.76 | <b>2.57</b> | <b>BETL</b> |
| DC5107 BGII                 | 1.37                              | 1.08 | 2.93 | 5.48 | <b>2.71</b> | <b>BETL</b> |
| KCH9265 BGII                | 0.73                              | 0.97 | 3.86 | 5.20 | <b>2.69</b> | <b>BETL</b> |
| US 723 BGII                 | 1.43                              | 1.04 | 3.24 | 5.33 | <b>2.76</b> | <b>BETL</b> |
| GCH 1107 BGII               | 1.03                              | 1.18 | 3.60 | 5.44 | <b>2.81</b> | <b>BETL</b> |
| 8811-9 BGII                 | 1.37                              | 1.38 | 2.79 | 4.18 | <b>2.43</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 1.33                              | 1.02 | 2.50 | 5.44 | <b>2.57</b> | <b>BETL</b> |
| ECH 999 BG II               | 0.33                              | 1.23 | 3.21 | 4.07 | <b>2.21</b> | <b>BETL</b> |
| KCH9264 BGII                | 1.70                              | 1.38 | 1.63 | 4.91 | <b>2.40</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 0.97                              | 1.47 | 1.74 | 6.16 | <b>2.58</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 1.50                              | 2.14 | 2.67 | 5.47 | <b>2.95</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial H X H trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry               | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------------|----------------------------------------|------|------|------|-------------|-------------|
|                             | GU                                     | RA   | CBE  | WR   | Mean        |             |
| RCH1196BGII                 | 1.23                                   | 0.62 | 0.84 | 1.60 | <b>1.08</b> | <b>BETL</b> |
| Core 106 BGII               | 2.63                                   | 0.77 | 0.96 | 1.78 | <b>1.53</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 2.40                                   | 1.10 | 1.36 | 2.04 | <b>1.73</b> | <b>BETL</b> |
| RCH1199BGII                 | 1.93                                   | 0.97 | 1.16 | 2.69 | <b>1.69</b> | <b>BETL</b> |
| KCH9266 BGII                | 2.53                                   | 1.32 | 0.87 | 2.33 | <b>1.76</b> | <b>BETL</b> |
| C9333 BG-II                 | 2.03                                   | 0.62 | 1.73 | 2.09 | <b>1.62</b> | <b>BETL</b> |
| US 722 BGII                 | 2.73                                   | 0.44 | 0.96 | 2.00 | <b>1.53</b> | <b>BETL</b> |
| VPCH-456 BG II              | 2.13                                   | 0.51 | 0.87 | 2.18 | <b>1.42</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 2.40                                   | 0.49 | 0.98 | 1.87 | <b>1.43</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 2.23                                   | 0.41 | 1.33 | 2.18 | <b>1.54</b> | <b>BETL</b> |
| Super-112 BGII              | 1.83                                   | 0.78 | 1.58 | 2.00 | <b>1.55</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 2.67                                   | 0.39 | 0.69 | 2.13 | <b>1.47</b> | <b>BETL</b> |
| KSP 5328 BG II              | 1.93                                   | 1.09 | 0.93 | 1.89 | <b>1.46</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 2.20                                   | 0.42 | 1.38 | 2.44 | <b>1.61</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 2.50                                   | 0.64 | 1.20 | 1.91 | <b>1.56</b> | <b>BETL</b> |
| DC5107 BGII                 | 2.70                                   | 0.84 | 0.67 | 2.20 | <b>1.60</b> | <b>BETL</b> |
| KCH9265 BGII                | 2.87                                   | 0.82 | 1.00 | 2.04 | <b>1.68</b> | <b>BETL</b> |
| US 723 BGII                 | 2.40                                   | 0.98 | 0.58 | 1.84 | <b>1.45</b> | <b>BETL</b> |
| GCH 1107 BGII               | 2.90                                   | 1.26 | 0.96 | 1.93 | <b>1.76</b> | <b>BETL</b> |
| 8811-9 BGII                 | 2.80                                   | 0.99 | 1.44 | 1.91 | <b>1.79</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 3.03                                   | 1.13 | 1.16 | 2.27 | <b>1.90</b> | <b>BETL</b> |
| ECH 999 BG II               | 2.57                                   | 0.97 | 1.36 | 2.00 | <b>1.72</b> | <b>BETL</b> |
| KCH9264 BGII                | 2.40                                   | 0.56 | 1.24 | 2.04 | <b>1.56</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 2.70                                   | 0.99 | 0.98 | 2.11 | <b>1.69</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 2.60                                   | 0.69 | 0.64 | 2.20 | <b>1.53</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**





**Table: Initial H X H trial in South Zone under Protected Conditions – JIG**

| Name of Entry               | JIG/plant |    |     |    |      | Remark |
|-----------------------------|-----------|----|-----|----|------|--------|
|                             | GU        | RA | CBE | WR | Mean |        |
| RCH1196BGII                 | I         | I  | I   | I  | I    |        |
| Core 106 BGII               | I         | I  | I   | I  | I    |        |
| NCS 9775 Bt2                | II        | I  | I   | I  | I    |        |
| RCH1199BGII                 | I         | I  | I   | I  | I    |        |
| KCH9266 BGII                | I         | I  | I   | I  | I    |        |
| C9333 BG-II                 | II        | I  | I   | I  | I    |        |
| US 722 BGII                 | I         | I  | I   | I  | I    |        |
| VPCH-456 BG II              | I         | I  | I   | II | I    |        |
| PCH 4996 Bt2                | I         | I  | I   | I  | I    |        |
| ARCH 6677 BGII              | I         | I  | I   | I  | I    |        |
| Super-112 BGII              | II        | I  | I   | I  | I    |        |
| <b>NBC 1821 BGII (ZC 1)</b> | I         | I  | I   | I  | I    |        |
| KSP 5328 BG II              | I         | I  | I   | I  | I    |        |
| <b>VSCH 369 BGII (ZC 2)</b> | I         | I  | I   | I  | I    |        |
| RAHH 1002 BGII              | I         | I  | I   | I  | I    |        |
| DC5107 BGII                 | I         | I  | I   | I  | I    |        |
| KCH9265 BGII                | I         | I  | I   | I  | I    |        |
| US 723 BGII                 | I         | I  | I   | II | I    |        |
| GCH 1107 BGII               | II        | I  | I   | II | II   |        |
| 8811-9 BGII                 | II        | I  | I   | I  | I    |        |
| RAHH 1004 BGII              | II        | I  | I   | II | II   |        |
| ECH 999 BG II               | I         | I  | I   | I  | I    |        |
| KCH9264 BGII                | I         | I  | I   | I  | I    |        |
| DGHH- 4854 BGII             | I         | I  | I   | I  | I    |        |
| PRCH 7992 Bt2               | I         | I  | I   | I  | I    |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Protected Conditions – Thrips**

| Name of Entry               | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark      |
|-----------------------------|------------------------------------|------|------|-------|-------------|-------------|
|                             | GU                                 | RA   | CBE  | WR    | Mean        |             |
| RCH1196BGII                 | 4.67                               | 4.03 | 2.29 | 10.29 | <b>5.32</b> | <b>BETL</b> |
| Core 106 BGII               | 2.83                               | 4.03 | 1.09 | 11.44 | <b>4.85</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 3.57                               | 3.67 | 0.89 | 11.47 | <b>4.90</b> | <b>BETL</b> |
| RCH1199BGII                 | 4.60                               | 4.89 | 2.13 | 11.20 | <b>5.71</b> | <b>BETL</b> |
| KCH9266 BGII                | 3.23                               | 4.53 | 1.78 | 10.53 | <b>5.02</b> | <b>BETL</b> |
| C9333 BG-II                 | 3.10                               | 4.96 | 2.02 | 11.73 | <b>5.45</b> | <b>BETL</b> |
| US 722 BGII                 | 3.63                               | 3.56 | 1.69 | 12.38 | <b>5.32</b> | <b>BETL</b> |
| VPCH-456 BG II              | 4.10                               | 3.96 | 1.91 | 12.16 | <b>5.53</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 3.07                               | 3.06 | 1.89 | 10.54 | <b>4.64</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 3.93                               | 4.46 | 1.53 | 10.67 | <b>5.15</b> | <b>BETL</b> |
| Super-112 BGII              | 3.53                               | 4.51 | 3.27 | 10.00 | <b>5.33</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 5.33                               | 3.83 | 2.27 | 11.78 | <b>5.80</b> | <b>BETL</b> |
| KSP 5328 BG II              | 3.30                               | 2.76 | 1.96 | 12.00 | <b>5.00</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 3.03                               | 4.63 | 2.16 | 8.76  | <b>4.64</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 3.57                               | 4.97 | 1.62 | 10.82 | <b>5.25</b> | <b>BETL</b> |
| DC5107 BGII                 | 3.80                               | 3.49 | 1.89 | 9.91  | <b>4.77</b> | <b>BETL</b> |
| KCH9265 BGII                | 4.37                               | 3.36 | 1.80 | 10.53 | <b>5.02</b> | <b>BETL</b> |
| US 723 BGII                 | 2.87                               | 4.36 | 2.29 | 9.73  | <b>4.81</b> | <b>BETL</b> |
| GCH 1107 BGII               | 3.47                               | 3.29 | 1.58 | 11.98 | <b>5.08</b> | <b>BETL</b> |
| 8811-9 BGII                 | 3.60                               | 3.83 | 1.56 | 9.49  | <b>4.62</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 2.83                               | 3.43 | 1.40 | 10.38 | <b>4.51</b> | <b>BETL</b> |
| ECH 999 BG II               | 3.30                               | 3.43 | 1.51 | 9.24  | <b>4.37</b> | <b>BETL</b> |
| KCH9264 BGII                | 3.57                               | 4.09 | 1.64 | 9.76  | <b>4.77</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 2.93                               | 4.63 | 2.60 | 11.20 | <b>5.34</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 3.30                               | 3.83 | 2.07 | 12.19 | <b>5.35</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry               | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------------|--------------------------------------|------|------|------|-------------|-------------|
|                             | GU                                   | RA   | CBE  | WR   | Mean        |             |
| RCH1196BGII                 | 0.07                                 | 0.13 | 0.48 | 1.82 | <b>0.63</b> | <b>BETL</b> |
| Core 106 BGII               | 0.03                                 | 0.20 | 0.82 | 1.93 | <b>0.75</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 0.23                                 | 0.16 | 0.61 | 1.53 | <b>0.63</b> | <b>BETL</b> |
| RCH1199BGII                 | 0.10                                 | 0.00 | 0.82 | 1.67 | <b>0.65</b> | <b>BETL</b> |
| KCH9266 BGII                | 0.03                                 | 0.03 | 0.58 | 1.76 | <b>0.60</b> | <b>BETL</b> |
| C9333 BG-II                 | 0.10                                 | 0.00 | 0.73 | 1.82 | <b>0.66</b> | <b>BETL</b> |
| US 722 BGII                 | 0.00                                 | 0.02 | 0.79 | 1.91 | <b>0.68</b> | <b>BETL</b> |
| VPCH-456 BG II              | 0.13                                 | 0.16 | 0.62 | 1.91 | <b>0.71</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 0.00                                 | 0.22 | 0.75 | 2.01 | <b>0.75</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 0.07                                 | 0.01 | 0.41 | 2.22 | <b>0.68</b> | <b>BETL</b> |
| Super-112 BGII              | 0.03                                 | 0.03 | 0.76 | 1.73 | <b>0.64</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.00                                 | 0.02 | 0.70 | 1.87 | <b>0.65</b> | <b>BETL</b> |
| KSP 5328 BG II              | 0.07                                 | 0.04 | 0.47 | 1.51 | <b>0.52</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.13                                 | 0.07 | 0.59 | 1.80 | <b>0.65</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 0.00                                 | 0.21 | 0.72 | 1.87 | <b>0.70</b> | <b>BETL</b> |
| DC5107 BGII                 | 0.03                                 | 0.17 | 0.72 | 2.06 | <b>0.74</b> | <b>BETL</b> |
| KCH9265 BGII                | 0.00                                 | 0.07 | 0.64 | 2.16 | <b>0.72</b> | <b>BETL</b> |
| US 723 BGII                 | 0.00                                 | 0.00 | 0.70 | 1.78 | <b>0.62</b> | <b>BETL</b> |
| GCH 1107 BGII               | 0.07                                 | 0.04 | 0.83 | 1.71 | <b>0.66</b> | <b>BETL</b> |
| 8811-9 BGII                 | 0.03                                 | 0.08 | 0.71 | 1.93 | <b>0.69</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 0.00                                 | 0.08 | 0.53 | 1.51 | <b>0.53</b> | <b>BETL</b> |
| ECH 999 BG II               | 0.07                                 | 0.11 | 0.50 | 1.49 | <b>0.54</b> | <b>BETL</b> |
| KCH9264 BGII                | 0.00                                 | 0.02 | 0.59 | 1.62 | <b>0.56</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 0.03                                 | 0.14 | 0.47 | 1.69 | <b>0.59</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 0.10                                 | 0.06 | 0.84 | 1.49 | <b>0.62</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry               | Natural Enemies (No./plant) |      |      |      |             | Remark |
|-----------------------------|-----------------------------|------|------|------|-------------|--------|
|                             | GU                          | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.27                        | 1.26 | 0.04 | 0.12 | <b>0.42</b> |        |
| Core 106 BGII               | 0.00                        | 0.64 | 0.04 | 0.13 | <b>0.20</b> |        |
| NCS 9775 Bt2                | 0.00                        | 0.63 | 0.00 | 0.18 | <b>0.20</b> |        |
| RCH1199BGII                 | 0.10                        | 0.83 | 0.09 | 0.11 | <b>0.28</b> |        |
| KCH9266 BGII                | 0.17                        | 1.04 | 0.02 | 0.11 | <b>0.34</b> |        |
| C9333 BG-II                 | 0.03                        | 0.62 | 0.02 | 0.18 | <b>0.21</b> |        |
| US 722 BGII                 | 0.07                        | 1.24 | 0.09 | 0.29 | <b>0.42</b> |        |
| VPCH-456 BG II              | 0.03                        | 2.61 | 0.07 | 0.16 | <b>0.72</b> |        |
| PCH 4996 Bt2                | 0.13                        | 1.27 | 0.00 | 0.16 | <b>0.39</b> |        |
| ARCH 6677 BGII              | 0.10                        | 1.04 | 0.04 | 0.40 | <b>0.40</b> |        |
| Super-112 BGII              | 0.00                        | 0.62 | 0.04 | 0.09 | <b>0.19</b> |        |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.10                        | 1.44 | 0.02 | 0.02 | <b>0.40</b> |        |
| KSP 5328 BG II              | 0.17                        | 0.62 | 0.04 | 0.18 | <b>0.25</b> |        |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.10                        | 0.62 | 0.16 | 0.11 | <b>0.25</b> |        |
| RAHH 1002 BGII              | 0.07                        | 0.64 | 0.07 | 0.00 | <b>0.19</b> |        |
| DC5107 BGII                 | 0.17                        | 1.46 | 0.04 | 0.13 | <b>0.45</b> |        |
| KCH9265 BGII                | 0.03                        | 0.62 | 0.04 | 0.16 | <b>0.21</b> |        |
| US 723 BGII                 | 0.00                        | 0.62 | 0.02 | 0.20 | <b>0.21</b> |        |
| GCH 1107 BGII               | 0.07                        | 0.84 | 0.04 | 0.11 | <b>0.26</b> |        |
| 8811-9 BGII                 | 0.00                        | 1.45 | 0.02 | 0.11 | <b>0.40</b> |        |
| RAHH 1004 BGII              | 0.17                        | 1.25 | 0.07 | 0.16 | <b>0.41</b> |        |
| ECH 999 BG II               | 0.03                        | 0.63 | 0.04 | 0.18 | <b>0.22</b> |        |
| KCH9264 BGII                | 0.00                        | 0.62 | 0.00 | 0.22 | <b>0.21</b> |        |
| DGHH- 4854 BGII             | 0.10                        | 0.85 | 0.00 | 0.16 | <b>0.28</b> |        |
| PRCH 7992 Bt2               | 0.07                        | 0.78 | 0.02 | 0.22 | <b>0.27</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Protected Conditions – *Helicoverpa armigera***

| Name of Entry               | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark      |
|-----------------------------|--------------------------------------------|------|------|------|-------------|-------------|
|                             | GU                                         | RA   | CBE  | WR   | Mean        |             |
| RCH1196BGII                 | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Core 106 BGII               | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RCH1199BGII                 | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH9266 BGII                | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| C9333 BG-II                 | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| US 722 BGII                 | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| VPCH-456 BG II              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Super-112 BGII              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KSP 5328 BG II              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| DC5107 BGII                 | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH9265 BGII                | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| US 723 BGII                 | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| GCH 1107 BGII               | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| 8811-9 BGII                 | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ECH 999 BG II               | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH9264 BGII                | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Protected Conditions –Spotted/ Spiny Bollworms**

| Name of Entry               | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|-----------------------------|----------------------------------|------|------|------|-------------|--------|
|                             | GU                               | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 106 BGII               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NCS 9775 Bt2                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH1199BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH9266 BGII                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C9333 BG-II                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 722 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VPCH-456 BG II              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PCH 4996 Bt2                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ARCH 6677 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Super-112 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KSP 5328 BG II              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHH 1002 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DC5107 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH9265 BGII                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 723 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| GCH 1107 BGII               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| 8811-9 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHH 1004 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ECH 999 BG II               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH9264 BGII                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DGHH- 4854 BGII             | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PRCH 7992 Bt2               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



Table: Initial H X H trial in South Zone under Protected Conditions – *Spodoptera litura*

| Name of Entry               | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |      | Remark |
|-----------------------------|-----------------------------------------|------|------|------|------|--------|
|                             | GU                                      | RA   | CBE  | WR   | Mean |        |
| RCH1196BGII                 | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| Core 106 BGII               | 0.17                                    | 0.00 | 0.00 | 0.00 | 0.04 | BETL   |
| NCS 9775 Bt2                | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| RCH1199BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH9266 BGII                | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| C9333 BG-II                 | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| US 722 BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VPCH-456 BG II              | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| PCH 4996 Bt2                | 0.10                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| ARCH 6677 BGII              | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Super-112 BGII              | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.23                                    | 0.00 | 0.00 | 0.00 | 0.06 | BETL   |
| KSP 5328 BG II              | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| RAHH 1002 BGII              | 0.10                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| DC5107 BGII                 | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| KCH9265 BGII                | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| US 723 BGII                 | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| GCH 1107 BGII               | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| 8811-9 BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHH 1004 BGII              | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| ECH 999 BG II               | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH9264 BGII                | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| DGHH- 4854 BGII             | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| PRCH 7992 Bt2               | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry               | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark      |
|-----------------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                             | GU                                                      | RA   | CBE  | WR   | Mean        |             |
| RCH1196BGII                 | 0.83                                                    | 0.22 | 0.56 | 1.00 | <b>0.65</b> | <b>BETL</b> |
| Core 106 BGII               | 0.67                                                    | 0.45 | 0.22 | 1.00 | <b>0.58</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 1.00                                                    | 0.11 | 0.22 | 1.22 | <b>0.64</b> | <b>BETL</b> |
| RCH1199BGII                 | 0.67                                                    | 0.34 | 0.00 | 1.11 | <b>0.53</b> | <b>BETL</b> |
| KCH9266 BGII                | 0.67                                                    | 0.22 | 0.22 | 1.11 | <b>0.56</b> | <b>BETL</b> |
| C9333 BG-II                 | 0.50                                                    | 0.22 | 0.22 | 1.00 | <b>0.49</b> | <b>BETL</b> |
| US 722 BGII                 | 0.33                                                    | 0.22 | 0.11 | 0.78 | <b>0.36</b> | <b>BETL</b> |
| VPCH-456 BG II              | 0.83                                                    | 0.34 | 0.22 | 1.56 | <b>0.74</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 0.67                                                    | 0.45 | 0.00 | 1.56 | <b>0.67</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 1.00                                                    | 0.34 | 0.22 | 2.00 | <b>0.89</b> | <b>BETL</b> |
| Super-112 BGII              | 1.00                                                    | 0.34 | 0.00 | 1.11 | <b>0.61</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.83                                                    | 0.34 | 0.11 | 2.00 | <b>0.82</b> | <b>BETL</b> |
| KSP 5328 BG II              | 1.17                                                    | 0.45 | 0.11 | 1.67 | <b>0.85</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.33                                                    | 0.34 | 0.00 | 1.56 | <b>0.56</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 0.33                                                    | 0.34 | 0.00 | 1.56 | <b>0.56</b> | <b>BETL</b> |
| DC5107 BGII                 | 0.50                                                    | 0.22 | 0.33 | 1.33 | <b>0.60</b> | <b>BETL</b> |
| KCH9265 BGII                | 0.50                                                    | 0.22 | 0.22 | 0.89 | <b>0.46</b> | <b>BETL</b> |
| US 723 BGII                 | 0.33                                                    | 0.22 | 0.22 | 1.67 | <b>0.61</b> | <b>BETL</b> |
| GCH 1107 BGII               | 1.00                                                    | 0.22 | 0.00 | 1.22 | <b>0.61</b> | <b>BETL</b> |
| 8811-9 BGII                 | 1.00                                                    | 0.34 | 0.11 | 1.44 | <b>0.72</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 0.67                                                    | 2.02 | 0.22 | 2.51 | <b>1.35</b> | <b>AETL</b> |
| ECH 999 BG II               | 0.50                                                    | 0.78 | 0.22 | 1.44 | <b>0.74</b> | <b>BETL</b> |
| KCH9264 BGII                | 0.33                                                    | 0.11 | 0.11 | 1.00 | <b>0.39</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 1.50                                                    | 0.34 | 0.33 | 1.33 | <b>0.88</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 1.17                                                    | 0.22 | 0.56 | 1.89 | <b>0.96</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**





**Table: Initial H X H trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry               | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|-----------------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                             | GU                                      | RA   | CBE  | WR   | Mean        |             |
| RCH1196BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Core 106 BGII               | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RCH1199BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH9266 BGII                | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| C9333 BG-II                 | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| US 722 BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| VPCH-456 BG II              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Super-112 BGII              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KSP 5328 BG II              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| DC5107 BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH9265 BGII                | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| US 723 BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| GCH 1107 BGII               | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| 8811-9 BGII                 | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ECH 999 BG II               | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH9264 BGII                | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial H X H trial in South Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry               | Green Boll Damage (%)/ 10 bolls destructive sampling |      |       |       |             | Remark      |
|-----------------------------|------------------------------------------------------|------|-------|-------|-------------|-------------|
|                             | GU                                                   | RA   | CBE   | WR    | Mean        |             |
| RCH1196BGII                 | 6.67                                                 | 1.26 | 6.67  | 7.78  | <b>5.59</b> | <b>BETL</b> |
| Core 106 BGII               | 8.33                                                 | 1.18 | 13.33 | 10.00 | <b>8.21</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 8.33                                                 | 0.59 | 8.33  | 10.00 | <b>6.81</b> | <b>BETL</b> |
| RCH1199BGII                 | 3.33                                                 | 0.55 | 8.33  | 10.00 | <b>5.55</b> | <b>BETL</b> |
| KCH9266 BGII                | 8.33                                                 | 0.55 | 11.67 | 7.78  | <b>7.08</b> | <b>BETL</b> |
| C9333 BG-II                 | 6.67                                                 | 1.93 | 6.67  | 7.78  | <b>5.76</b> | <b>BETL</b> |
| US 722 BGII                 | 3.33                                                 | 0.76 | 1.67  | 7.78  | <b>3.38</b> | <b>BETL</b> |
| VPCH-456 BG II              | 8.33                                                 | 0.59 | 1.67  | 11.11 | <b>5.42</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 3.33                                                 | 0.97 | 1.67  | 8.89  | <b>3.71</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 6.67                                                 | 0.80 | 8.33  | 14.44 | <b>7.56</b> | <b>BETL</b> |
| Super-112 BGII              | 6.67                                                 | 0.63 | 1.67  | 8.89  | <b>4.46</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 5.00                                                 | 0.63 | 5.00  | 14.44 | <b>6.27</b> | <b>BETL</b> |
| KSP 5328 BG II              | 6.67                                                 | 0.59 | 3.33  | 14.44 | <b>6.26</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 8.33                                                 | 0.55 | 3.33  | 12.22 | <b>6.11</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 6.67                                                 | 1.05 | 3.33  | 11.22 | <b>5.57</b> | <b>BETL</b> |
| DC5107 BGII                 | 5.00                                                 | 0.55 | 8.33  | 10.00 | <b>5.97</b> | <b>BETL</b> |
| KCH9265 BGII                | 6.67                                                 | 0.76 | 8.33  | 6.67  | <b>5.61</b> | <b>BETL</b> |
| US 723 BGII                 | 6.67                                                 | 0.59 | 1.67  | 10.00 | <b>4.73</b> | <b>BETL</b> |
| GCH 1107 BGII               | 8.33                                                 | 0.59 | 0.00  | 10.00 | <b>4.73</b> | <b>BETL</b> |
| 8811-9 BGII                 | 8.33                                                 | 0.80 | 5.00  | 12.22 | <b>6.59</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 6.67                                                 | 0.55 | 11.67 | 10.00 | <b>7.22</b> | <b>BETL</b> |
| ECH 999 BG II               | 5.00                                                 | 1.18 | 1.67  | 8.89  | <b>4.18</b> | <b>BETL</b> |
| KCH9264 BGII                | 3.33                                                 | 0.97 | 3.33  | 6.67  | <b>3.57</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 8.33                                                 | 1.26 | 5.00  | 8.89  | <b>5.87</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 6.67                                                 | 0.59 | 5.00  | 12.22 | <b>6.12</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial H X H trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry               | Open Boll Damage (%) |      |      |       |              | Remark |
|-----------------------------|----------------------|------|------|-------|--------------|--------|
|                             | GU                   | RA   | CBE  | WR    | Mean         |        |
| RCH1196BGII                 | 7.82                 | 3.98 | 6.95 | 26.67 | <b>11.35</b> |        |
| Core 106 BGII               | 4.95                 | 4.23 | 5.89 | 20.00 | <b>8.77</b>  |        |
| NCS 9775 Bt2                | 6.82                 | 4.50 | 5.37 | 25.00 | <b>10.42</b> |        |
| RCH1199BGII                 | 6.26                 | 4.33 | 4.28 | 28.33 | <b>10.80</b> |        |
| KCH9266 BGII                | 7.61                 | 4.33 | 5.97 | 25.00 | <b>10.73</b> |        |
| C9333 BG-II                 | 5.53                 | 3.16 | 9.96 | 21.67 | <b>10.08</b> |        |
| US 722 BGII                 | 7.21                 | 4.33 | 8.25 | 26.67 | <b>11.61</b> |        |
| VPCH-456 BG II              | 9.17                 | 4.50 | 3.35 | 18.33 | <b>8.84</b>  |        |
| PCH 4996 Bt2                | 9.10                 | 3.54 | 5.37 | 21.67 | <b>9.92</b>  |        |
| ARCH 6677 BGII              | 6.36                 | 4.61 | 4.43 | 26.67 | <b>10.52</b> |        |
| Super-112 BGII              | 4.97                 | 4.67 | 5.31 | 30.00 | <b>11.24</b> |        |
| <b>NBC 1821 BGII (ZC 1)</b> | 5.77                 | 4.67 | 2.94 | 25.00 | <b>9.60</b>  |        |
| KSP 5328 BG II              | 7.76                 | 4.50 | 5.73 | 20.00 | <b>9.50</b>  |        |
| <b>VSCH 369 BGII (ZC 2)</b> | 9.15                 | 4.33 | 5.42 | 21.67 | <b>10.14</b> |        |
| RAHH 1002 BGII              | 5.90                 | 4.38 | 5.24 | 11.67 | <b>6.80</b>  |        |
| DC5107 BGII                 | 8.29                 | 4.33 | 4.03 | 20.00 | <b>9.16</b>  |        |
| KCH9265 BGII                | 5.70                 | 4.33 | 8.28 | 25.00 | <b>10.83</b> |        |
| US 723 BGII                 | 8.70                 | 4.50 | 4.88 | 16.67 | <b>8.69</b>  |        |
| GCH 1107 BGII               | 7.13                 | 4.50 | 6.18 | 13.33 | <b>7.79</b>  |        |
| 8811-9 BGII                 | 5.71                 | 3.76 | 8.76 | 15.00 | <b>8.31</b>  |        |
| RAHH 1004 BGII              | 4.96                 | 4.33 | 8.05 | 18.33 | <b>8.92</b>  |        |
| ECH 999 BG II               | 8.43                 | 4.21 | 6.03 | 18.33 | <b>9.25</b>  |        |
| KCH9264 BGII                | 5.19                 | 4.33 | 6.85 | 20.00 | <b>9.09</b>  |        |
| DGHH- 4854 BGII             | 7.27                 | 3.94 | 6.31 | 18.33 | <b>8.96</b>  |        |
| PRCH 7992 Bt2               | 8.17                 | 4.50 | 7.57 | 21.67 | <b>10.48</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial H X H trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry               | Locule Damage (%) |      |      |       |             | Remark |
|-----------------------------|-------------------|------|------|-------|-------------|--------|
|                             | GU                | RA   | CBE  | WR    | Mean        |        |
| RCH1196BGII                 | 3.75              | 2.52 | 3.00 | 9.03  | <b>4.57</b> |        |
| Core 106 BGII               | 3.47              | 2.77 | 2.37 | 10.59 | <b>4.80</b> |        |
| NCS 9775 Bt2                | 3.65              | 3.04 | 2.12 | 12.90 | <b>5.43</b> |        |
| RCH1199BGII                 | 4.62              | 2.87 | 1.44 | 9.84  | <b>4.69</b> |        |
| KCH9266 BGII                | 3.28              | 2.87 | 2.18 | 10.66 | <b>4.75</b> |        |
| C9333 BG-II                 | 3.40              | 1.70 | 3.54 | 8.02  | <b>4.16</b> |        |
| US 722 BGII                 | 3.64              | 2.87 | 3.28 | 11.81 | <b>5.40</b> |        |
| VPCH-456 BG II              | 6.47              | 3.04 | 0.97 | 9.97  | <b>5.11</b> |        |
| PCH 4996 Bt2                | 3.69              | 2.08 | 1.74 | 9.92  | <b>4.36</b> |        |
| ARCH 6677 BGII              | 2.77              | 3.15 | 1.44 | 11.02 | <b>4.59</b> |        |
| Super-112 BGII              | 2.49              | 3.21 | 2.39 | 10.34 | <b>4.61</b> |        |
| <b>NBC 1821 BGII (ZC 1)</b> | 3.26              | 3.21 | 1.09 | 11.56 | <b>4.78</b> |        |
| KSP 5328 BG II              | 4.90              | 3.04 | 1.73 | 9.87  | <b>4.89</b> |        |
| <b>VSCH 369 BGII (ZC 2)</b> | 4.00              | 2.87 | 2.17 | 14.10 | <b>5.78</b> |        |
| RAHH 1002 BGII              | 3.84              | 2.92 | 1.98 | 15.47 | <b>6.05</b> |        |
| DC5107 BGII                 | 3.76              | 2.87 | 2.06 | 11.26 | <b>4.99</b> |        |
| KCH9265 BGII                | 2.65              | 2.87 | 2.98 | 12.62 | <b>5.28</b> |        |
| US 723 BGII                 | 5.74              | 3.04 | 1.90 | 10.17 | <b>5.21</b> |        |
| GCH 1107 BGII               | 3.28              | 3.04 | 2.67 | 12.44 | <b>5.36</b> |        |
| 8811-9 BGII                 | 2.17              | 2.30 | 3.29 | 12.16 | <b>4.98</b> |        |
| RAHH 1004 BGII              | 2.93              | 2.87 | 3.32 | 15.23 | <b>6.09</b> |        |
| ECH 999 BG II               | 2.69              | 2.75 | 2.32 | 13.20 | <b>5.24</b> |        |
| KCH9264 BGII                | 3.00              | 2.87 | 2.58 | 12.82 | <b>5.32</b> |        |
| DGHH- 4854 BGII             | 4.16              | 2.48 | 2.90 | 7.28  | <b>4.21</b> |        |
| PRCH 7992 Bt2               | 3.95              | 3.04 | 3.46 | 12.75 | <b>5.80</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial H X H trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests**

| Name of Entry               | Number of sprays for Insect-pests |      |      |      |             | Remark |
|-----------------------------|-----------------------------------|------|------|------|-------------|--------|
|                             | GU                                | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Core 106 BGII               | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| NCS 9775 Bt2                | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RCH1199BGII                 | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH9266 BGII                | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| C9333 BG-II                 | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| US 722 BGII                 | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| VPCH-456 BG II              | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| PCH 4996 Bt2                | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| ARCH 6677 BGII              | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Super-112 BGII              | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| <b>NBC 1821 BGII (ZC 1)</b> | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KSP 5328 BG II              | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| <b>VSCH 369 BGII (ZC 2)</b> | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RAHH 1002 BGII              | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| DC5107 BGII                 | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH9265 BGII                | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| US 723 BGII                 | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| GCH 1107 BGII               | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| 8811-9 BGII                 | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RAHH 1004 BGII              | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| ECH 999 BG II               | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH9264 BGII                | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| DGHH- 4854 BGII             | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| PRCH 7992 Bt2               | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Waranga**



## Reaction to Diseases

**Table 1 (a) Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET-Hybrids IRR) under Protected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |             |    |      |    |      |    |
|--------|---------|-----------------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|-------------|----|------|----|------|----|
|        |         |                             | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    | LAM ,Guntur |    |      |    |      |    |
|        |         |                             | ALS                                                       |    | CoLS |    | GM   |    | RUST |    | TSV |    | CoLS        |    | GM   |    | Rust |    |
|        |         |                             | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR | PDI         | DR | PDI  | DR | PDI  | DR |
| 11     | 55001   | RCH1196BGII                 | 3.7                                                       | R  | 5.0  | R  | 12.0 | R  | 26.2 | MR | 2.0 | R  | 26.7        | MR | 30.3 | MR | 26.5 | MR |
| 2      | 55002   | Core 106 BGII               | 2.8                                                       | R  | 2.3  | R  | 10.8 | R  | 27.2 | MR | 3.7 | R  | 11.3        | R  | 11.3 | R  | 28.1 | MR |
| 25     | 55003   | NCS 9775 Bt2                | 3.5                                                       | R  | 3.7  | R  | 10.7 | R  | 27.8 | MR | 1.9 | R  | 10.8        | R  | 30.6 | MR | 27.8 | MR |
| 3      | 55004   | RCH1199BGII                 | 4.8                                                       | R  | 3.8  | R  | 11.7 | R  | 27.0 | MR | 0.5 | R  | 27.0        | MR | 26.5 | MR | 26.0 | MR |
| 12     | 55005   | KCH9266 BGII                | 3.0                                                       | R  | 3.7  | R  | 12.7 | R  | 27.7 | MR | 1.1 | R  | 10.2        | R  | 12.0 | R  | 15.5 | R  |
| 19     | 55006   | C9333 BG-II                 | 2.8                                                       | R  | 4.0  | R  | 12.3 | R  | 27.8 | MR | 2.0 | R  | 28.5        | MR | 11.3 | R  | 28.2 | MR |
| 6      | 55007   | US 722 BGII                 | 2.7                                                       | R  | 3.0  | R  | 12.8 | R  | 27.0 | MR | 1.5 | R  | 10.2        | R  | 28.8 | MR | 27.5 | MR |
| 17     | 55008   | VPCH-456 BG II              | 3.5                                                       | R  | 4.5  | R  | 14.3 | R  | 26.3 | MR | 0.3 | R  | 26.2        | MR | 33.5 | MR | 25.8 | MR |
| 1      | 55009   | PCH 4996 Bt2                | 3.2                                                       | R  | 3.7  | R  | 14.0 | R  | 27.8 | MR | 0.7 | R  | 26.1        | MR | 38.5 | MR | 10.1 | R  |
| 20     | 55010   | ARCH 6677 BGII              | 3.0                                                       | R  | 3.2  | R  | 12.2 | R  | 28.8 | MR | 1.4 | R  | 33.5        | MR | 29.7 | MR | 14.3 | R  |
| 5      | 55011   | Super-112 BGII              | 3.3                                                       | R  | 3.7  | R  | 12.5 | R  | 27.0 | MR | 2.4 | R  | 28.3        | MR | 31.3 | MR | 28.8 | MR |
| 4      | 55012   | <b>NBC 1821 BGII (ZC 1)</b> | 2.8                                                       | R  | 3.2  | R  | 11.7 | R  | 27.8 | MR | 3.5 | R  | 28.0        | MR | 23.8 | R  | 29.5 | MR |
| 15     | 55013   | KSP 5328 BG II              | 3.3                                                       | R  | 3.3  | R  | 11.7 | R  | 27.0 | MR | 2.8 | R  | 10.3        | R  | 26.8 | MR | 28.8 | MR |
| 8      | 55014   | <b>VSCH 369 BGII (ZC 2)</b> | 2.7                                                       | R  | 4.2  | R  | 12.3 | R  | 27.8 | MR | 3.0 | R  | 29.8        | MR | 30.0 | MR | 27.8 | MR |
| 21     | 55015   | RAHH 1002 BGII              | 3.5                                                       | R  | 5.0  | R  | 12.5 | R  | 27.8 | MR | 2.3 | R  | 24.2        | R  | 27.3 | MR | 27.3 | MR |
| 16     | 55016   | DC5107 BGII                 | 3.2                                                       | R  | 3.8  | R  | 12.2 | R  | 27.5 | MR | 0.4 | R  | 11.2        | R  | 11.5 | R  | 30.5 | MR |
| 14     | 55017   | KCH9265 BGII                | 2.5                                                       | R  | 3.2  | R  | 12.0 | R  | 27.3 | MR | 0.6 | R  | 8.8         | R  | 28.3 | MR | 11.0 | R  |
| 7      | 55018   | US 723 BGII                 | 2.3                                                       | R  | 3.3  | R  | 12.3 | R  | 28.5 | MR | 2.2 | R  | 7.3         | R  | 27.8 | MR | 28.5 | MR |
| 10     | 55019   | GCH 1107 BGII               | 2.8                                                       | R  | 4.5  | R  | 12.7 | R  | 27.8 | MR | 2.7 | R  | 20.5        | R  | 14.5 | R  | 13.4 | R  |
| 23     | 55020   | 8811-9 BGII                 | 2.8                                                       | R  | 5.5  | R  | 12.7 | R  | 26.7 | MR | 2.0 | R  | 28.8        | MR | 30.5 | MR | 29.5 | MR |
| 9      | 55021   | RAHH 1004 BGII              | 3.2                                                       | R  | 4.0  | R  | 13.5 | R  | 27.3 | MR | 2.0 | R  | 26.5        | MR | 27.0 | MR | 20.3 | R  |
| 18     | 55022   | ECH 999 BG II               | 3.8                                                       | R  | 5.8  | R  | 13.8 | R  | 28.3 | MR | 1.7 | R  | 28.5        | MR | 26.8 | MR | 28.5 | MR |
| 24     | 55023   | KCH9264 BGII                | 3.0                                                       | R  | 3.8  | R  | 12.5 | R  | 29.0 | MR | 3.0 | R  | 7.8         | R  | 28.3 | MR | 27.5 | MR |
| 13     | 55024   | DGHH- 4854 BGII             | 2.5                                                       | R  | 3.2  | R  | 11.3 | R  | 29.0 | MR | 4.1 | R  | 26.5        | MR | 30.3 | MR | 29.5 | MR |
| 22     | 55025   | PRCH 7992 Bt2               | 3.7                                                       | R  | 4.3  | R  | 12.2 | R  | 27.8 | MR | 3.9 | R  | 29.3        | MR | 26.5 | MR | 28.3 | MR |

**Table 1 (b): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET-Hybrids IRR) under Protected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions |    |          |    |     |    |     |    |      |    |
|--------|---------|-----------------------------|-----------------------------------------------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                             | CICR RS , Coimbatore                                      |    |          |    |     |    |     |    |      |    |
|        |         |                             | ALS                                                       |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                             | PDI                                                       | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 11     | 55001   | RCH1196BGII                 | 5.3                                                       | R  | 0.0      | DF | 1.0 | R  | 1.8 | R  | 7.3  | R  |
| 2      | 55002   | Core 106 BGII               | 6.5                                                       | R  | 0.0      | DF | 0.0 | DF | 1.8 | R  | 6.3  | R  |
| 25     | 55003   | NCS 9775 Bt2                | 5.5                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.3  | R  |
| 3      | 55004   | RCH1199BGII                 | 4.7                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 6.5  | R  |
| 12     | 55005   | KCH9266 BGII                | 5.0                                                       | R  | 0.0      | DF | 1.2 | R  | 1.9 | R  | 5.5  | R  |
| 19     | 55006   | C9333 BG-II                 | 3.8                                                       | R  | 0.0      | DF | 1.2 | R  | 1.1 | R  | 5.3  | R  |
| 6      | 55007   | US 722 BGII                 | 5.0                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 5.8  | R  |
| 17     | 55008   | VPCH-456 BG II              | 6.5                                                       | R  | 0.0      | DF | 0.0 | DF | 1.1 | R  | 9.2  | R  |
| 1      | 55009   | PCH 4996 Bt2                | 4.8                                                       | R  | 0.0      | DF | 0.5 | R  | 1.7 | R  | 6.8  | R  |
| 20     | 55010   | ARCH 6677 BGII              | 6.8                                                       | R  | 0.0      | DF | 1.5 | R  | 2.7 | R  | 5.8  | R  |
| 5      | 55011   | Super-112 BGII              | 4.2                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.5  | R  |
| 4      | 55012   | <b>NBC 1821 BGII (ZC 1)</b> | 6.5                                                       | R  | 0.0      | DF | 0.0 | DF | 1.8 | R  | 7.0  | R  |
| 15     | 55013   | KSP 5328 BG II              | 4.9                                                       | R  | 0.0      | DF | 1.0 | R  | 0.8 | R  | 7.3  | R  |
| 8      | 55014   | <b>VSCH 369 BGII (ZC 2)</b> | 7.2                                                       | R  | 0.0      | DF | 0.7 | R  | 0.0 | DF | 6.8  | R  |
| 21     | 55015   | RAHH 1002 BGII              | 4.5                                                       | R  | 0.0      | DF | 1.3 | R  | 0.0 | DF | 8.0  | R  |
| 16     | 55016   | DC5107 BGII                 | 5.5                                                       | R  | 0.0      | DF | 0.0 | DF | 1.8 | R  | 6.5  | R  |
| 14     | 55017   | KCH9265 BGII                | 5.3                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 5.7  | R  |
| 7      | 55018   | US 723 BGII                 | 6.5                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.2  | R  |
| 10     | 55019   | GCH 1107 BGII               | 6.2                                                       | R  | 0.0      | DF | 1.7 | R  | 0.0 | DF | 6.7  | R  |
| 23     | 55020   | 8811-9 BGII                 | 5.2                                                       | R  | 0.0      | DF | 0.3 | R  | 0.7 | R  | 7.2  | R  |
| 9      | 55021   | RAHH 1004 BGII              | 6.2                                                       | R  | 0.0      | DF | 0.3 | R  | 4.7 | R  | 7.2  | R  |
| 18     | 55022   | ECH 999 BG II               | 4.2                                                       | R  | 0.0      | DF | 0.3 | R  | 0.0 | DF | 8.0  | R  |
| 24     | 55023   | KCH9264 BGII                | 5.8                                                       | R  | 0.0      | DF | 1.2 | R  | 4.4 | R  | 6.2  | R  |
| 13     | 55024   | DGHH- 4854 BGII             | 4.2                                                       | R  | 0.0      | DF | 0.5 | R  | 3.4 | R  | 6.0  | R  |
| 22     | 55025   | PRCH 7992 Bt2               | 4.7                                                       | R  | 0.0      | DF | 0.5 | R  | 0.0 | DF | 7.2  | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Initial H X H trial in South Zone under Unprotected Conditions –Aphid**

| Name of Entry               | Aphid (Average of 3 leaves/plant) |      |       |       |             | Remark      |
|-----------------------------|-----------------------------------|------|-------|-------|-------------|-------------|
|                             | GU                                | RA   | CBE   | WR    | Mean        |             |
| RCH1196BGII                 | 4.67                              | 2.20 | 6.96  | 8.80  | <b>5.66</b> | <b>BETL</b> |
| Core 106 BGII               | 6.40                              | 2.20 | 6.02  | 7.33  | <b>5.49</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 5.43                              | 2.34 | 6.16  | 7.40  | <b>5.33</b> | <b>BETL</b> |
| RCH1199BGII                 | 6.27                              | 2.20 | 5.69  | 8.40  | <b>5.64</b> | <b>BETL</b> |
| KCH9266 BGII                | 5.23                              | 1.95 | 8.07  | 7.13  | <b>5.60</b> | <b>BETL</b> |
| C9333 BG-II                 | 5.97                              | 2.10 | 5.58  | 7.53  | <b>5.30</b> | <b>BETL</b> |
| US 722 BGII                 | 6.23                              | 2.37 | 5.44  | 8.60  | <b>5.66</b> | <b>BETL</b> |
| VPCH-456 BG II              | 5.70                              | 2.57 | 8.42  | 7.73  | <b>6.11</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 5.27                              | 3.77 | 7.67  | 7.73  | <b>6.11</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 5.57                              | 2.57 | 9.36  | 7.33  | <b>6.21</b> | <b>BETL</b> |
| Super-112 BGII              | 7.00                              | 1.96 | 7.56  | 8.73  | <b>6.31</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 5.50                              | 2.40 | 8.02  | 9.13  | <b>6.26</b> | <b>BETL</b> |
| KSP 5328 BG II              | 8.57                              | 2.23 | 6.56  | 8.20  | <b>6.39</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 5.07                              | 3.31 | 10.07 | 10.33 | <b>7.19</b> | <b>AETL</b> |
| RAHH 1002 BGII              | 5.97                              | 2.42 | 11.29 | 8.00  | <b>6.92</b> | <b>AETL</b> |
| DC5107 BGII                 | 5.50                              | 2.18 | 7.87  | 8.20  | <b>5.94</b> | <b>BETL</b> |
| KCH9265 BGII                | 5.77                              | 2.18 | 5.58  | 7.80  | <b>5.33</b> | <b>BETL</b> |
| US 723 BGII                 | 6.80                              | 2.10 | 7.93  | 7.93  | <b>6.19</b> | <b>BETL</b> |
| GCH 1107 BGII               | 6.93                              | 2.39 | 7.84  | 7.67  | <b>6.21</b> | <b>BETL</b> |
| 8811-9 BGII                 | 5.47                              | 2.65 | 10.60 | 8.40  | <b>6.78</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 6.30                              | 2.36 | 7.82  | 7.13  | <b>5.90</b> | <b>BETL</b> |
| ECH 999 BG II               | 7.60                              | 2.40 | 7.40  | 7.87  | <b>6.32</b> | <b>BETL</b> |
| KCH9264 BGII                | 5.60                              | 2.74 | 9.53  | 7.67  | <b>6.38</b> | <b>BETL</b> |
| DGHH- 4854 BGII             | 5.37                              | 2.73 | 9.69  | 9.20  | <b>6.75</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 7.23                              | 3.57 | 10.60 | 8.53  | <b>7.48</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





Table: Initial H X H trial in South Zone under Unprotected Conditions – Leafhopper

| Name of Entry               | Leafhopper (Average of 3 leaves/plant) |       |      |      |             | Remark      |
|-----------------------------|----------------------------------------|-------|------|------|-------------|-------------|
|                             | GU                                     | RA    | CBE  | WR   | Mean        |             |
| RCH1196BGII                 | 7.50                                   | 3.59  | 0.47 | 3.60 | <b>3.79</b> | <b>BETL</b> |
| Core 106 BGII               | 8.33                                   | 8.52  | 1.07 | 2.73 | <b>5.16</b> | <b>BETL</b> |
| NCS 9775 Bt2                | 9.30                                   | 6.63  | 0.53 | 4.53 | <b>5.25</b> | <b>BETL</b> |
| RCH1199BGII                 | 8.80                                   | 5.82  | 0.93 | 4.40 | <b>4.99</b> | <b>BETL</b> |
| KCH9266 BGII                | 9.63                                   | 7.40  | 0.93 | 3.80 | <b>5.44</b> | <b>BETL</b> |
| C9333 BG-II                 | 10.93                                  | 7.51  | 1.20 | 3.67 | <b>5.83</b> | <b>BETL</b> |
| US 722 BGII                 | 10.53                                  | 7.25  | 1.40 | 3.73 | <b>5.73</b> | <b>BETL</b> |
| VPCH-456 BG II              | 8.00                                   | 5.24  | 1.07 | 2.60 | <b>4.23</b> | <b>BETL</b> |
| PCH 4996 Bt2                | 9.40                                   | 5.70  | 0.53 | 4.27 | <b>4.97</b> | <b>BETL</b> |
| ARCH 6677 BGII              | 9.50                                   | 13.90 | 0.33 | 3.93 | <b>6.92</b> | <b>AETL</b> |
| Super-112 BGII              | 10.77                                  | 4.38  | 1.53 | 3.20 | <b>4.97</b> | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 9.17                                   | 4.59  | 1.07 | 4.33 | <b>4.79</b> | <b>BETL</b> |
| KSP 5328 BG II              | 8.47                                   | 7.50  | 1.60 | 4.00 | <b>5.39</b> | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 9.20                                   | 7.39  | 2.13 | 4.40 | <b>5.78</b> | <b>BETL</b> |
| RAHH 1002 BGII              | 10.17                                  | 3.41  | 2.80 | 3.73 | <b>5.03</b> | <b>BETL</b> |
| DC5107 BGII                 | 9.20                                   | 7.74  | 4.80 | 4.27 | <b>6.50</b> | <b>AETL</b> |
| KCH9265 BGII                | 8.97                                   | 7.47  | 3.20 | 5.07 | <b>6.18</b> | <b>AETL</b> |
| US 723 BGII                 | 9.97                                   | 7.39  | 2.53 | 4.73 | <b>6.16</b> | <b>AETL</b> |
| GCH 1107 BGII               | 9.33                                   | 7.75  | 1.73 | 5.07 | <b>5.97</b> | <b>BETL</b> |
| 8811-9 BGII                 | 10.53                                  | 6.52  | 2.80 | 3.87 | <b>5.93</b> | <b>BETL</b> |
| RAHH 1004 BGII              | 9.47                                   | 10.22 | 7.47 | 3.73 | <b>7.72</b> | <b>AETL</b> |
| ECH 999 BG II               | 9.07                                   | 7.06  | 5.27 | 4.07 | <b>6.37</b> | <b>AETL</b> |
| KCH9264 BGII                | 9.37                                   | 10.26 | 4.40 | 4.33 | <b>7.09</b> | <b>AETL</b> |
| DGHH- 4854 BGII             | 8.23                                   | 7.77  | 2.53 | 4.80 | <b>5.83</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 11.33                                  | 8.52  | 4.80 | 5.00 | <b>7.41</b> | <b>AETL</b> |

\*GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Initial H X H trial in South Zone under Unprotected Conditions – JIG

| Name of Entry               | JIG/plant |     |     |     |      | Remark |
|-----------------------------|-----------|-----|-----|-----|------|--------|
|                             | GU        | RA  | CBE | WR  | Mean |        |
| RCH1196BGII                 | I         | II  | I   | I   | I    |        |
| Core 106 BGII               | II        | II  | I   | II  | II   |        |
| NCS 9775 Bt2                | III       | II  | I   | II  | II   |        |
| RCH1199BGII                 | II        | II  | I   | II  | II   |        |
| KCH9266 BGII                | III       | II  | I   | II  | II   |        |
| C9333 BG-II                 | IV        | II  | I   | II  | II   |        |
| US 722 BGII                 | IV        | II  | I   | II  | II   |        |
| VPCH-456 BG II              | III       | II  | I   | III | II   |        |
| PCH 4996 Bt2                | III       | II  | I   | II  | II   |        |
| ARCH 6677 BGII              | III       | II  | I   | II  | II   |        |
| Super-112 BGII              | IV        | I   | I   | II  | II   |        |
| <b>NBC 1821 BGII (ZC 1)</b> | III       | II  | I   | III | II   |        |
| KSP 5328 BG II              | III       | II  | I   | II  | II   |        |
| <b>VSCH 369 BGII (ZC 2)</b> | III       | II  | I   | II  | II   |        |
| RAHH 1002 BGII              | IV        | II  | I   | II  | II   |        |
| DC5107 BGII                 | III       | I   | I   | II  | II   |        |
| KCH9265 BGII                | II        | III | I   | II  | II   |        |
| US 723 BGII                 | III       | II  | I   | III | II   |        |
| GCH 1107 BGII               | III       | II  | I   | III | II   |        |
| 8811-9 BGII                 | IV        | II  | I   | II  | II   |        |
| RAHH 1004 BGII              | IV        | III | I   | II  | III  |        |
| ECH 999 BG II               | III       | III | I   | III | III  |        |
| KCH9264 BGII                | III       | II  | I   | II  | II   |        |
| DGHH- 4854 BGII             | III       | II  | I   | III | II   |        |
| PRCH 7992 Bt2               | IV        | III | I   | II  | III  |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Initial H X H trial in South Zone under Unprotected Conditions – Thrips

| Name of Entry               | Thrips (Average of 3 leaves/plant) |      |      |       |              | Remark      |
|-----------------------------|------------------------------------|------|------|-------|--------------|-------------|
|                             | GU                                 | RA   | CBE  | WR    | Mean         |             |
| RCH1196BGII                 | 6.43                               | 4.88 | 3.04 | 13.60 | <b>6.99</b>  | <b>BETL</b> |
| Core 106 BGII               | 7.33                               | 5.72 | 1.76 | 11.87 | <b>6.67</b>  | <b>BETL</b> |
| NCS 9775 Bt2                | 8.47                               | 4.20 | 0.80 | 12.53 | <b>6.50</b>  | <b>BETL</b> |
| RCH1199BGII                 | 8.33                               | 4.50 | 2.11 | 14.13 | <b>7.27</b>  | <b>BETL</b> |
| KCH9266 BGII                | 7.97                               | 5.11 | 2.22 | 17.73 | <b>8.26</b>  | <b>BETL</b> |
| C9333 BG-II                 | 6.80                               | 4.36 | 2.60 | 20.07 | <b>8.46</b>  | <b>BETL</b> |
| US 722 BGII                 | 8.57                               | 5.88 | 2.31 | 15.73 | <b>8.12</b>  | <b>BETL</b> |
| VPCH-456 BG II              | 6.17                               | 5.90 | 2.76 | 16.27 | <b>7.77</b>  | <b>BETL</b> |
| PCH 4996 Bt2                | 7.90                               | 4.23 | 1.36 | 13.53 | <b>6.75</b>  | <b>BETL</b> |
| ARCH 6677 BGII              | 8.00                               | 7.75 | 2.76 | 13.40 | <b>7.98</b>  | <b>BETL</b> |
| Super-112 BGII              | 9.10                               | 9.00 | 2.20 | 17.67 | <b>9.49</b>  | <b>BETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 8.57                               | 6.32 | 0.87 | 19.53 | <b>8.82</b>  | <b>BETL</b> |
| KSP 5328 BG II              | 7.37                               | 6.34 | 2.31 | 19.87 | <b>8.97</b>  | <b>BETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 7.43                               | 4.69 | 1.82 | 14.67 | <b>7.15</b>  | <b>BETL</b> |
| RAHH 1002 BGII              | 9.13                               | 7.35 | 2.51 | 15.67 | <b>8.67</b>  | <b>BETL</b> |
| DC5107 BGII                 | 8.07                               | 4.67 | 3.13 | 15.87 | <b>7.94</b>  | <b>BETL</b> |
| KCH9265 BGII                | 8.93                               | 7.05 | 2.11 | 15.33 | <b>8.36</b>  | <b>BETL</b> |
| US 723 BGII                 | 9.27                               | 5.09 | 2.49 | 14.80 | <b>7.91</b>  | <b>BETL</b> |
| GCH 1107 BGII               | 8.90                               | 6.28 | 2.16 | 19.67 | <b>9.25</b>  | <b>BETL</b> |
| 8811-9 BGII                 | 8.80                               | 5.04 | 2.49 | 16.33 | <b>8.16</b>  | <b>BETL</b> |
| RAHH 1004 BGII              | 9.50                               | 5.93 | 1.60 | 14.47 | <b>7.87</b>  | <b>BETL</b> |
| ECH 999 BG II               | 8.53                               | 6.10 | 1.60 | 13.33 | <b>7.39</b>  | <b>BETL</b> |
| KCH9264 BGII                | 7.93                               | 5.42 | 1.56 | 15.00 | <b>7.48</b>  | <b>BETL</b> |
| DGHH- 4854 BGII             | 9.27                               | 7.78 | 3.82 | 23.87 | <b>11.18</b> | <b>BETL</b> |
| PRCH 7992 Bt2               | 8.57                               | 5.80 | 2.58 | 15.20 | <b>8.04</b>  | <b>BETL</b> |

\*GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry               | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|-----------------------------|--------------------------------------|------|------|------|-------------|--------|
|                             | GU                                   | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.33                                 | 0.96 | 2.20 | 0.47 | <b>0.99</b> | BETL   |
| Core 106 BGII               | 0.93                                 | 0.69 | 1.60 | 0.60 | <b>0.96</b> | BETL   |
| NCS 9775 Bt2                | 1.00                                 | 1.12 | 0.20 | 0.93 | <b>0.81</b> | BETL   |
| RCH1199BGII                 | 1.20                                 | 0.69 | 0.40 | 0.87 | <b>0.79</b> | BETL   |
| KCH9266 BGII                | 1.07                                 | 1.48 | 0.67 | 0.93 | <b>1.04</b> | BETL   |
| C9333 BG-II                 | 0.47                                 | 0.79 | 0.47 | 0.87 | <b>0.65</b> | BETL   |
| US 722 BGII                 | 1.23                                 | 0.99 | 1.07 | 0.93 | <b>1.06</b> | BETL   |
| VPCH-456 BG II              | 1.03                                 | 1.37 | 0.60 | 0.73 | <b>0.93</b> | BETL   |
| PCH 4996 Bt2                | 0.53                                 | 1.34 | 0.87 | 0.53 | <b>0.82</b> | BETL   |
| ARCH 6677 BGII              | 0.93                                 | 1.64 | 0.93 | 0.53 | <b>1.01</b> | BETL   |
| Super-112 BGII              | 0.73                                 | 0.76 | 0.80 | 0.73 | <b>0.76</b> | BETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 1.13                                 | 0.69 | 1.07 | 0.60 | <b>0.87</b> | BETL   |
| KSP 5328 BG II              | 0.97                                 | 0.96 | 0.93 | 0.53 | <b>0.85</b> | BETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 1.50                                 | 1.23 | 0.80 | 0.80 | <b>1.08</b> | BETL   |
| RAHH 1002 BGII              | 1.17                                 | 0.92 | 1.07 | 0.67 | <b>0.95</b> | BETL   |
| DC5107 BGII                 | 1.07                                 | 0.72 | 2.27 | 0.73 | <b>1.20</b> | BETL   |
| KCH9265 BGII                | 1.30                                 | 1.25 | 2.47 | 1.00 | <b>1.50</b> | BETL   |
| US 723 BGII                 | 0.77                                 | 0.89 | 3.20 | 0.80 | <b>1.42</b> | BETL   |
| GCH 1107 BGII               | 0.80                                 | 0.69 | 1.73 | 1.40 | <b>1.16</b> | BETL   |
| 8811-9 BGII                 | 0.73                                 | 0.83 | 1.93 | 0.47 | <b>0.99</b> | BETL   |
| RAHH 1004 BGII              | 0.43                                 | 1.14 | 1.67 | 0.73 | <b>0.99</b> | BETL   |
| ECH 999 BG II               | 1.43                                 | 1.43 | 1.87 | 0.67 | <b>1.35</b> | BETL   |
| KCH9264 BGII                | 1.10                                 | 0.85 | 0.67 | 0.73 | <b>0.84</b> | BETL   |
| DGHH- 4854 BGII             | 1.10                                 | 1.32 | 0.33 | 0.87 | <b>0.90</b> | BETL   |
| PRCH 7992 Bt2               | 0.67                                 | 0.85 | 0.40 | 0.73 | <b>0.66</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions –Natural Enemies**

| Name of Entry               | Natural Enemies (No./plant) |      |      |      |             | Remark |
|-----------------------------|-----------------------------|------|------|------|-------------|--------|
|                             | GU                          | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.37                        | 1.68 | 0.07 | 0.07 | <b>0.54</b> |        |
| Core 106 BGII               | 0.23                        | 1.12 | 0.00 | 0.07 | <b>0.36</b> |        |
| NCS 9775 Bt2                | 0.00                        | 0.90 | 0.07 | 0.27 | <b>0.31</b> |        |
| RCH1199BGII                 | 0.07                        | 1.22 | 0.13 | 0.13 | <b>0.39</b> |        |
| KCH9266 BGII                | 0.17                        | 1.57 | 0.00 | 0.13 | <b>0.47</b> |        |
| C9333 BG-II                 | 0.23                        | 1.00 | 0.13 | 0.20 | <b>0.39</b> |        |
| US 722 BGII                 | 0.03                        | 2.12 | 0.00 | 0.07 | <b>0.56</b> |        |
| VPCH-456 BG II              | 0.17                        | 1.40 | 0.00 | 0.07 | <b>0.41</b> |        |
| PCH 4996 Bt2                | 0.07                        | 1.68 | 0.00 | 0.13 | <b>0.47</b> |        |
| ARCH 6677 BGII              | 0.10                        | 1.57 | 0.00 | 0.07 | <b>0.43</b> |        |
| Super-112 BGII              | 0.10                        | 0.84 | 0.00 | 0.13 | <b>0.27</b> |        |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.17                        | 1.79 | 0.13 | 0.13 | <b>0.56</b> |        |
| KSP 5328 BG II              | 0.27                        | 0.90 | 0.00 | 0.20 | <b>0.34</b> |        |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.17                        | 1.07 | 0.07 | 0.27 | <b>0.39</b> |        |
| RAHH 1002 BGII              | 0.00                        | 1.40 | 0.00 | 0.27 | <b>0.42</b> |        |
| DC5107 BGII                 | 0.20                        | 1.84 | 0.00 | 0.00 | <b>0.51</b> |        |
| KCH9265 BGII                | 0.03                        | 1.12 | 0.00 | 0.40 | <b>0.39</b> |        |
| US 723 BGII                 | 0.27                        | 1.34 | 0.07 | 0.20 | <b>0.47</b> |        |
| GCH 1107 BGII               | 0.13                        | 1.07 | 0.27 | 0.33 | <b>0.45</b> |        |
| 8811-9 BGII                 | 0.03                        | 1.23 | 0.00 | 0.07 | <b>0.33</b> |        |
| RAHH 1004 BGII              | 0.30                        | 1.45 | 0.13 | 0.13 | <b>0.51</b> |        |
| ECH 999 BG II               | 0.20                        | 1.01 | 0.00 | 0.13 | <b>0.34</b> |        |
| KCH9264 BGII                | 0.20                        | 0.62 | 0.00 | 0.13 | <b>0.24</b> |        |
| DGHH- 4854 BGII             | 0.17                        | 1.51 | 0.13 | 0.27 | <b>0.52</b> |        |
| PRCH 7992 Bt2               | 0.17                        | 0.84 | 0.00 | 0.20 | <b>0.30</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry               | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|-----------------------------|--------------------------------------------|------|------|------|-------------|--------|
|                             | GU                                         | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| Core 106 BGII               | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NCS 9775 Bt2                | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| RCH1199BGII                 | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| KCH9266 BGII                | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| C9333 BG-II                 | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| US 722 BGII                 | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| VPCH-456 BG II              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PCH 4996 Bt2                | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| ARCH 6677 BGII              | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Super-112 BGII              | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| KSP 5328 BG II              | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| RAHH 1002 BGII              | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| DC5107 BGII                 | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| KCH9265 BGII                | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 723 BGII                 | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| GCH 1107 BGII               | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| 8811-9 BGII                 | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| RAHH 1004 BGII              | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| ECH 999 BG II               | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| KCH9264 BGII                | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| DGHH- 4854 BGII             | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| PRCH 7992 Bt2               | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms**

| Name of Entry               | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|-----------------------------|----------------------------------|------|------|------|-------------|--------|
|                             | GU                               | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 106 BGII               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NCS 9775 Bt2                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH1199BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH9266 BGII                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C9333 BG-II                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 722 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VPCH-456 BG II              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PCH 4996 Bt2                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ARCH 6677 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Super-112 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KSP 5328 BG II              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHH 1002 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DC5107 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH9265 BGII                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 723 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| GCH 1107 BGII               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| 8811-9 BGII                 | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHH 1004 BGII              | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ECH 999 BG II               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH9264 BGII                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DGHH- 4854 BGII             | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PRCH 7992 Bt2               | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry               | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark |
|-----------------------------|-----------------------------------------|------|------|------|-------------|--------|
|                             | GU                                      | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.20                                    | 0.56 | 0.00 | 0.00 | <b>0.19</b> | BETL   |
| Core 106 BGII               | 0.67                                    | 0.44 | 0.00 | 0.00 | <b>0.28</b> | BETL   |
| NCS 9775 Bt2                | 0.57                                    | 0.67 | 0.00 | 0.00 | <b>0.31</b> | BETL   |
| RCH1199BGII                 | 0.70                                    | 0.78 | 0.00 | 0.00 | <b>0.37</b> | BETL   |
| KCH9266 BGII                | 0.47                                    | 0.56 | 0.00 | 0.00 | <b>0.26</b> | BETL   |
| C9333 BG-II                 | 0.63                                    | 0.89 | 0.00 | 0.00 | <b>0.38</b> | BETL   |
| US 722 BGII                 | 0.63                                    | 1.00 | 0.00 | 0.00 | <b>0.41</b> | BETL   |
| VPCH-456 BG II              | 0.10                                    | 1.11 | 0.00 | 0.00 | <b>0.30</b> | BETL   |
| PCH 4996 Bt2                | 0.63                                    | 1.22 | 0.00 | 0.00 | <b>0.46</b> | BETL   |
| ARCH 6677 BGII              | 0.57                                    | 1.22 | 0.00 | 0.00 | <b>0.45</b> | BETL   |
| Super-112 BGII              | 0.60                                    | 1.00 | 0.00 | 0.00 | <b>0.40</b> | BETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.90                                    | 0.78 | 0.00 | 0.00 | <b>0.42</b> | BETL   |
| KSP 5328 BG II              | 0.70                                    | 0.78 | 0.00 | 0.00 | <b>0.37</b> | BETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.67                                    | 1.00 | 0.00 | 0.00 | <b>0.42</b> | BETL   |
| RAHH 1002 BGII              | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| DC5107 BGII                 | 0.80                                    | 1.00 | 0.00 | 0.00 | <b>0.45</b> | BETL   |
| KCH9265 BGII                | 0.00                                    | 1.00 | 0.00 | 0.00 | <b>0.25</b> | BETL   |
| US 723 BGII                 | 0.93                                    | 0.44 | 0.00 | 0.00 | <b>0.34</b> | BETL   |
| GCH 1107 BGII               | 0.53                                    | 0.67 | 0.00 | 0.00 | <b>0.30</b> | BETL   |
| 8811-9 BGII                 | 0.20                                    | 0.78 | 0.00 | 0.00 | <b>0.24</b> | BETL   |
| RAHH 1004 BGII              | 0.50                                    | 0.56 | 0.00 | 0.00 | <b>0.26</b> | BETL   |
| ECH 999 BG II               | 0.00                                    | 1.22 | 0.00 | 0.00 | <b>0.31</b> | BETL   |
| KCH9264 BGII                | 0.53                                    | 1.33 | 0.00 | 0.00 | <b>0.47</b> | BETL   |
| DGHH- 4854 BGII             | 0.80                                    | 1.00 | 0.00 | 0.00 | <b>0.45</b> | BETL   |
| PRCH 7992 Bt2               | 0.27                                    | 0.78 | 0.00 | 0.00 | <b>0.26</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





Table: Initial H X H trial in South Zone under Unprotected Conditions – Pink Bollworm

| Name of Entry               | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark |
|-----------------------------|---------------------------------------------------------|------|------|------|-------------|--------|
|                             | GU                                                      | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 3.83                                                    | 2.50 | 1.33 | 5.00 | <b>3.17</b> | AETL   |
| Core 106 BGII               | 3.67                                                    | 2.28 | 1.00 | 8.00 | <b>3.74</b> | AETL   |
| NCS 9775 Bt2                | 4.00                                                    | 1.83 | 0.33 | 7.00 | <b>3.29</b> | AETL   |
| RCH1199BGII                 | 5.67                                                    | 2.06 | 1.00 | 4.00 | <b>3.18</b> | AETL   |
| KCH9266 BGII                | 3.00                                                    | 1.94 | 0.33 | 6.33 | <b>2.90</b> | AETL   |
| C9333 BG-II                 | 4.33                                                    | 2.06 | 0.33 | 8.33 | <b>3.76</b> | AETL   |
| US 722 BGII                 | 3.17                                                    | 1.94 | 0.33 | 6.33 | <b>2.94</b> | AETL   |
| VPCH-456 BG II              | 5.00                                                    | 1.54 | 0.00 | 6.67 | <b>3.30</b> | AETL   |
| PCH 4996 Bt2                | 4.00                                                    | 1.28 | 0.33 | 5.33 | <b>2.74</b> | AETL   |
| ARCH 6677 BGII              | 4.00                                                    | 1.72 | 0.00 | 5.00 | <b>2.68</b> | AETL   |
| Super-112 BGII              | 2.67                                                    | 1.28 | 0.00 | 5.00 | <b>2.24</b> | AETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 4.00                                                    | 2.28 | 0.67 | 8.67 | <b>3.90</b> | AETL   |
| KSP 5328 BG II              | 5.00                                                    | 1.28 | 1.00 | 6.33 | <b>3.40</b> | AETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 5.17                                                    | 1.50 | 0.33 | 2.67 | <b>2.42</b> | AETL   |
| RAHH 1002 BGII              | 3.17                                                    | 1.50 | 1.00 | 6.33 | <b>3.00</b> | AETL   |
| DC5107 BGII                 | 4.33                                                    | 2.28 | 0.00 | 5.67 | <b>3.07</b> | AETL   |
| KCH9265 BGII                | 3.00                                                    | 1.50 | 0.00 | 5.67 | <b>2.54</b> | AETL   |
| US 723 BGII                 | 3.17                                                    | 1.83 | 1.00 | 7.33 | <b>3.33</b> | AETL   |
| GCH 1107 BGII               | 5.00                                                    | 2.28 | 0.33 | 9.00 | <b>4.15</b> | AETL   |
| 8811-9 BGII                 | 4.67                                                    | 2.06 | 0.33 | 6.00 | <b>3.26</b> | AETL   |
| RAHH 1004 BGII              | 3.67                                                    | 2.06 | 0.00 | 7.67 | <b>3.35</b> | AETL   |
| ECH 999 BG II               | 3.67                                                    | 1.50 | 0.33 | 7.67 | <b>3.29</b> | AETL   |
| KCH9264 BGII                | 3.00                                                    | 2.72 | 0.00 | 7.67 | <b>3.35</b> | AETL   |
| DGHH- 4854 BGII             | 4.67                                                    | 1.94 | 0.00 | 7.00 | <b>3.40</b> | AETL   |
| PRCH 7992 Bt2               | 4.00                                                    | 2.50 | 0.00 | 6.00 | <b>3.13</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Green Boll  
Damage due to ABW/SBW/TC**

| Name of Entry               | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|-----------------------------|-----------------------------------------|------|------|------|-------------|--------|
|                             | GU                                      | RA   | CBE  | WR   | Mean        |        |
| RCH1196BGII                 | 0.00                                    | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| Core 106 BGII               | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| NCS 9775 Bt2                | 0.00                                    | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| RCH1199BGII                 | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| KCH9266 BGII                | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| C9333 BG-II                 | 0.00                                    | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| US 722 BGII                 | 0.00                                    | 0.44 | 0.00 | 0.00 | <b>0.11</b> | BETL   |
| VPCH-456 BG II              | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| PCH 4996 Bt2                | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| ARCH 6677 BGII              | 0.00                                    | 0.67 | 0.00 | 0.00 | <b>0.17</b> | BETL   |
| Super-112 BGII              | 0.00                                    | 0.44 | 0.00 | 0.00 | <b>0.11</b> | BETL   |
| <b>NBC 1821 BGII (ZC 1)</b> | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| KSP 5328 BG II              | 0.00                                    | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| <b>VSCH 369 BGII (ZC 2)</b> | 0.00                                    | 0.44 | 0.00 | 0.00 | <b>0.11</b> | BETL   |
| RAHH 1002 BGII              | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| DC5107 BGII                 | 0.00                                    | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| KCH9265 BGII                | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| US 723 BGII                 | 0.00                                    | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| GCH 1107 BGII               | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| 8811-9 BGII                 | 0.00                                    | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| RAHH 1004 BGII              | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| ECH 999 BG II               | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| KCH9264 BGII                | 0.00                                    | 0.67 | 0.00 | 0.00 | <b>0.17</b> | BETL   |
| DGHH- 4854 BGII             | 0.00                                    | 0.44 | 0.00 | 0.00 | <b>0.11</b> | BETL   |
| PRCH 7992 Bt2               | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry               | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark      |
|-----------------------------|-------------------------------------------------------|------|-------|-------|--------------|-------------|
|                             | GU                                                    | RA   | CBE   | WR    | Mean         |             |
| RCH1196BGII                 | 40.00                                                 | 5.34 | 15.00 | 46.67 | <b>26.75</b> | <b>AETL</b> |
| Core 106 BGII               | 31.67                                                 | 5.04 | 15.00 | 60.00 | <b>27.93</b> | <b>AETL</b> |
| NCS 9775 Bt2                | 38.33                                                 | 4.02 | 15.00 | 40.00 | <b>24.34</b> | <b>AETL</b> |
| RCH1199BGII                 | 40.00                                                 | 4.63 | 10.00 | 30.00 | <b>21.16</b> | <b>AETL</b> |
| KCH9266 BGII                | 26.67                                                 | 4.29 | 10.00 | 43.33 | <b>21.07</b> | <b>AETL</b> |
| C9333 BG-II                 | 40.00                                                 | 4.99 | 5.00  | 46.67 | <b>24.16</b> | <b>AETL</b> |
| US 722 BGII                 | 28.33                                                 | 3.69 | 5.00  | 40.00 | <b>19.26</b> | <b>AETL</b> |
| VPCH-456 BG II              | 41.67                                                 | 3.41 | 20.00 | 50.00 | <b>28.77</b> | <b>AETL</b> |
| PCH 4996 Bt2                | 33.33                                                 | 4.74 | 10.00 | 43.33 | <b>22.85</b> | <b>AETL</b> |
| ARCH 6677 BGII              | 31.67                                                 | 4.02 | 5.00  | 23.33 | <b>16.00</b> | <b>AETL</b> |
| Super-112 BGII              | 33.33                                                 | 4.07 | 10.00 | 36.67 | <b>21.02</b> | <b>AETL</b> |
| <b>NBC 1821 BGII (ZC 1)</b> | 35.00                                                 | 4.13 | 15.00 | 56.67 | <b>27.70</b> | <b>AETL</b> |
| KSP 5328 BG II              | 33.33                                                 | 3.96 | 20.00 | 43.33 | <b>25.16</b> | <b>AETL</b> |
| <b>VSCH 369 BGII (ZC 2)</b> | 36.67                                                 | 3.85 | 10.00 | 40.00 | <b>22.63</b> | <b>AETL</b> |
| RAHH 1002 BGII              | 28.33                                                 | 4.96 | 10.00 | 30.00 | <b>18.32</b> | <b>AETL</b> |
| DC5107 BGII                 | 30.00                                                 | 5.35 | 10.00 | 46.67 | <b>23.00</b> | <b>AETL</b> |
| KCH9265 BGII                | 25.00                                                 | 4.79 | 10.00 | 46.67 | <b>21.62</b> | <b>AETL</b> |
| US 723 BGII                 | 20.00                                                 | 4.01 | 5.00  | 43.33 | <b>18.09</b> | <b>AETL</b> |
| GCH 1107 BGII               | 33.33                                                 | 3.68 | 15.00 | 53.33 | <b>26.34</b> | <b>AETL</b> |
| 8811-9 BGII                 | 35.00                                                 | 4.76 | 5.00  | 50.00 | <b>23.69</b> | <b>AETL</b> |
| RAHH 1004 BGII              | 35.00                                                 | 4.73 | 5.00  | 53.33 | <b>24.52</b> | <b>AETL</b> |
| ECH 999 BG II               | 33.33                                                 | 4.68 | 0.00  | 53.33 | <b>22.84</b> | <b>AETL</b> |
| KCH9264 BGII                | 25.00                                                 | 3.84 | 0.00  | 60.00 | <b>22.21</b> | <b>AETL</b> |
| DGHH- 4854 BGII             | 36.67                                                 | 4.62 | 10.00 | 60.00 | <b>27.82</b> | <b>AETL</b> |
| PRCH 7992 Bt2               | 30.00                                                 | 3.84 | 5.00  | 50.00 | <b>22.21</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry               | Open Boll Damage (%) |       |       |       |              | Remark |
|-----------------------------|----------------------|-------|-------|-------|--------------|--------|
|                             | GU                   | RA    | CBE   | WR    | Mean         |        |
| RCH1196BGII                 | 51.36                | 11.81 | 21.85 | 60.00 | <b>36.26</b> |        |
| Core 106 BGII               | 44.78                | 11.43 | 22.27 | 75.00 | <b>38.37</b> |        |
| NCS 9775 Bt2                | 56.34                | 8.74  | 13.81 | 65.00 | <b>35.97</b> |        |
| RCH1199BGII                 | 58.91                | 11.43 | 17.89 | 50.00 | <b>34.56</b> |        |
| KCH9266 BGII                | 44.62                | 9.58  | 13.10 | 75.00 | <b>35.58</b> |        |
| C9333 BG-II                 | 60.25                | 8.24  | 15.81 | 60.00 | <b>36.07</b> |        |
| US 722 BGII                 | 45.81                | 8.10  | 11.25 | 65.00 | <b>32.54</b> |        |
| VPCH-456 BG II              | 51.37                | 7.90  | 10.60 | 65.00 | <b>33.72</b> |        |
| PCH 4996 Bt2                | 49.85                | 10.42 | 22.60 | 75.00 | <b>39.47</b> |        |
| ARCH 6677 BGII              | 63.17                | 8.32  | 24.03 | 55.00 | <b>37.63</b> |        |
| Super-112 BGII              | 41.20                | 8.49  | 18.09 | 70.00 | <b>34.44</b> |        |
| <b>NBC 1821 BGII (ZC 1)</b> | 46.17                | 8.32  | 15.76 | 60.00 | <b>32.56</b> |        |
| KSP 5328 BG II              | 39.88                | 8.15  | 20.92 | 40.00 | <b>27.24</b> |        |
| <b>VSCH 369 BGII (ZC 2)</b> | 43.51                | 7.98  | 14.72 | 50.00 | <b>29.05</b> |        |
| RAHH 1002 BGII              | 50.15                | 11.17 | 14.30 | 45.00 | <b>30.15</b> |        |
| DC5107 BGII                 | 62.74                | 12.52 | 21.39 | 65.00 | <b>40.41</b> |        |
| KCH9265 BGII                | 66.85                | 10.84 | 10.17 | 70.00 | <b>39.47</b> |        |
| US 723 BGII                 | 57.25                | 8.13  | 18.37 | 50.00 | <b>33.44</b> |        |
| GCH 1107 BGII               | 44.83                | 8.13  | 17.21 | 75.00 | <b>36.29</b> |        |
| 8811-9 BGII                 | 50.51                | 11.83 | 15.84 | 60.00 | <b>34.54</b> |        |
| RAHH 1004 BGII              | 49.63                | 12.16 | 10.54 | 65.00 | <b>34.33</b> |        |
| ECH 999 BG II               | 40.87                | 9.47  | 12.29 | 60.00 | <b>30.66</b> |        |
| KCH9264 BGII                | 42.66                | 8.13  | 8.46  | 50.00 | <b>27.31</b> |        |
| DGHH- 4854 BGII             | 52.88                | 9.14  | 8.40  | 60.00 | <b>32.61</b> |        |
| PRCH 7992 Bt2               | 47.21                | 8.13  | 5.07  | 70.00 | <b>32.60</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry               | Locule Damage (%) |      |       |       |              | Remark |
|-----------------------------|-------------------|------|-------|-------|--------------|--------|
|                             | GU                | RA   | CBE   | WR    | Mean         |        |
| RCH1196BGII                 | 22.85             | 9.17 | 7.12  | 25.25 | <b>16.10</b> |        |
| Core 106 BGII               | 22.36             | 8.79 | 10.18 | 38.00 | <b>19.83</b> |        |
| NCS 9775 Bt2                | 30.57             | 6.10 | 6.46  | 27.18 | <b>17.58</b> |        |
| RCH1199BGII                 | 29.51             | 8.79 | 6.14  | 18.09 | <b>15.63</b> |        |
| KCH9266 BGII                | 33.11             | 6.94 | 6.04  | 29.85 | <b>18.98</b> |        |
| C9333 BG-II                 | 40.25             | 5.59 | 7.73  | 29.81 | <b>20.85</b> |        |
| US 722 BGII                 | 20.86             | 5.46 | 4.01  | 28.02 | <b>14.59</b> |        |
| VPCH-456 BG II              | 24.36             | 5.26 | 5.49  | 23.02 | <b>14.53</b> |        |
| PCH 4996 Bt2                | 22.98             | 7.78 | 12.37 | 24.62 | <b>16.94</b> |        |
| ARCH 6677 BGII              | 39.74             | 5.68 | 11.07 | 26.26 | <b>20.69</b> |        |
| Super-112 BGII              | 22.54             | 5.85 | 9.56  | 21.18 | <b>14.78</b> |        |
| <b>NBC 1821 BGII (ZC 1)</b> | 30.25             | 5.68 | 6.81  | 20.20 | <b>15.73</b> |        |
| KSP 5328 BG II              | 22.71             | 5.51 | 9.99  | 15.84 | <b>13.51</b> |        |
| <b>VSCH 369 BGII (ZC 2)</b> | 26.54             | 5.34 | 7.50  | 21.05 | <b>15.11</b> |        |
| RAHH 1002 BGII              | 20.26             | 8.53 | 6.18  | 21.00 | <b>13.99</b> |        |
| DC5107 BGII                 | 33.67             | 9.88 | 11.34 | 24.14 | <b>19.76</b> |        |
| KCH9265 BGII                | 30.78             | 8.20 | 3.66  | 23.65 | <b>16.57</b> |        |
| US 723 BGII                 | 29.51             | 5.49 | 6.39  | 19.59 | <b>15.24</b> |        |
| GCH 1107 BGII               | 21.87             | 5.49 | 13.78 | 27.36 | <b>17.12</b> |        |
| 8811-9 BGII                 | 25.97             | 9.18 | 6.30  | 22.34 | <b>15.95</b> |        |
| RAHH 1004 BGII              | 20.11             | 9.52 | 4.84  | 19.90 | <b>13.59</b> |        |
| ECH 999 BG II               | 21.53             | 6.83 | 5.09  | 21.80 | <b>13.81</b> |        |
| KCH9264 BGII                | 20.68             | 5.49 | 3.58  | 21.00 | <b>12.69</b> |        |
| DGHH- 4854 BGII             | 26.74             | 6.50 | 2.77  | 23.23 | <b>14.81</b> |        |
| PRCH 7992 Bt2               | 19.33             | 9.49 | 2.10  | 25.87 | <b>14.20</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table 1 (c) Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET-Hybrids IRR) under Unprotected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |      |    |             |    |      |    |      |    |
|--------|---------|-----------------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|------|----|-------------|----|------|----|------|----|
|        |         |                             | RARS, Warangal                                              |    |      |    |      |    |      |    |      |    | Lam, Guntur |    |      |    |      |    |
|        |         |                             | ALS                                                         |    | CoLS |    | GM   |    | Rust |    | TSV  |    | CoLS        |    | GM   |    | Rust |    |
|        |         |                             | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI         | DR | PDI  | DR | PDI  | DR |
| 11     | 55001   | RCH1196BGII                 | 6.0                                                         | R  | 5.5  | R  | 27.0 | MR | 45.5 | MR | 6.3  | R  | 29.2        | MR | 34.5 | MR | 28.3 | MR |
| 2      | 55002   | Core 106 BGII               | 6.5                                                         | R  | 8.0  | R  | 20.0 | R  | 41.5 | MR | 15.0 | R  | 15.8        | R  | 15.0 | R  | 29.5 | MR |
| 25     | 55003   | NCS 9775 Bt2                | 6.0                                                         | R  | 6.5  | R  | 18.0 | R  | 41.5 | MR | 10.0 | R  | 11.6        | R  | 33.8 | MR | 28.3 | MR |
| 3      | 55004   | RCH1199BGII                 | 6.0                                                         | R  | 7.0  | R  | 16.0 | R  | 48.5 | MR | 7.5  | R  | 29.0        | MR | 28.3 | MR | 29.0 | MR |
| 12     | 55005   | KCH9266 BGII                | 5.0                                                         | R  | 6.0  | R  | 12.0 | R  | 17.0 | R  | 8.8  | R  | 13.6        | R  | 15.3 | R  | 17.3 | R  |
| 19     | 55006   | C9333 BG-II                 | 3.5                                                         | R  | 4.5  | R  | 13.5 | R  | 36.0 | MR | 10.0 | R  | 30.5        | MR | 12.5 | R  | 31.5 | MR |
| 6      | 55007   | US 722 BGII                 | 6.0                                                         | R  | 6.0  | R  | 15.0 | R  | 25.5 | MR | 8.8  | R  | 11.0        | R  | 29.0 | MR | 28.0 | MR |
| 17     | 55008   | VPCH-456 BG II              | 16.5                                                        | R  | 13.0 | R  | 12.5 | R  | 17.5 | R  | 13.8 | R  | 32.0        | MR | 35.0 | MR | 26.5 | MR |
| 1      | 55009   | PCH 4996 Bt2                | 5.5                                                         | R  | 7.0  | R  | 13.0 | R  | 17.5 | R  | 12.5 | R  | 26.8        | MR | 40.3 | MR | 12.0 | R  |
| 20     | 55010   | ARCH 6677 BGII              | 5.5                                                         | R  | 7.0  | R  | 16.0 | R  | 34.0 | MR | 7.5  | R  | 35.8        | MR | 30.3 | MR | 17.5 | R  |
| 5      | 55011   | Super-112 BGII              | 6.0                                                         | R  | 7.0  | R  | 15.5 | R  | 42.5 | MR | 10.0 | R  | 30.0        | MR | 34.0 | MR | 36.0 | MR |
| 4      | 55012   | <b>NBC 1821 BGII (ZC 1)</b> | 6.0                                                         | R  | 7.5  | R  | 12.5 | R  | 36.5 | MR | 17.5 | R  | 27.2        | MR | 26.8 | MR | 31.3 | MR |
| 15     | 55013   | KSP 5328 BG II              | 7.5                                                         | R  | 7.0  | R  | 16.0 | R  | 31.0 | MR | 16.3 | R  | 12.8        | R  | 27.8 | MR | 29.3 | MR |
| 8      | 55014   | <b>VSCH 369 BGII (ZC 2)</b> | 6.5                                                         | R  | 7.0  | R  | 14.5 | R  | 36.0 | MR | 18.8 | R  | 30.8        | MR | 30.5 | MR | 28.3 | MR |
| 21     | 55015   | RAHH 1002 BGII              | 6.0                                                         | R  | 7.0  | R  | 13.0 | R  | 39.0 | MR | 6.3  | R  | 26.8        | MR | 28.5 | MR | 29.2 | MR |
| 16     | 55016   | DC5107 BGII                 | 6.5                                                         | R  | 8.0  | R  | 14.0 | R  | 32.0 | MR | 5.0  | R  | 12.5        | R  | 12.8 | R  | 33.0 | MR |
| 14     | 55017   | KCH9265 BGII                | 8.0                                                         | R  | 5.5  | R  | 14.0 | R  | 25.0 | R  | 6.3  | R  | 9.5         | R  | 31.5 | MR | 13.0 | R  |
| 7      | 55018   | US 723 BGII                 | 9.5                                                         | R  | 10.0 | R  | 20.0 | R  | 31.0 | MR | 13.8 | R  | 8.0         | R  | 29.8 | MR | 26.8 | MR |
| 10     | 55019   | GCH 1107 BGII               | 9.5                                                         | R  | 9.0  | R  | 12.0 | R  | 32.5 | MR | 18.8 | R  | 22.0        | R  | 16.5 | R  | 15.5 | R  |
| 23     | 55020   | 8811-9 BGII                 | 8.0                                                         | R  | 10.0 | R  | 12.5 | R  | 33.0 | MR | 11.3 | R  | 30.3        | MR | 34.8 | MR | 31.3 | MR |
| 9      | 55021   | RAHH 1004 BGII              | 6.0                                                         | R  | 6.0  | R  | 12.0 | R  | 32.0 | MR | 8.8  | R  | 29.3        | MR | 28.0 | MR | 27.0 | MR |
| 18     | 55022   | ECH 999 BG II               | 6.5                                                         | R  | 7.0  | R  | 13.0 | R  | 29.0 | MR | 13.8 | R  | 31.3        | MR | 28.8 | MR | 30.5 | MR |
| 24     | 55023   | KCH9264 BGII                | 6.0                                                         | R  | 7.0  | R  | 12.0 | R  | 15.5 | R  | 10.0 | R  | 9.62        | R  | 30.5 | MR | 28.5 | MR |
| 13     | 55024   | DGHH- 4854 BGII             | 6.0                                                         | R  | 7.5  | R  | 14.0 | R  | 24.0 | R  | 6.3  | R  | 29.5        | MR | 33.5 | MR | 28.5 | MR |
| 22     | 55025   | PRCH 7992 Bt2               | 7.0                                                         | R  | 6.5  | R  | 13.0 | R  | 29.0 | MR | 13.8 | R  | 30.3        | MR | 24.5 | MR | 29.3 | MR |

Table 1 (d) Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET-Hybrids IRR) under unprotected conditions

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Unprotected conditions |    |          |    |     |    |     |    |      |    |
|--------|---------|-----------------------------|-------------------------------------------------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                             | CICR RS Coimbatore                                          |    |          |    |     |    |     |    |      |    |
|        |         |                             | ALS                                                         |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                             | PDI                                                         | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 11     | 55001   | RCH1196BGII                 | 7.0                                                         | R  | 0.0      | DF | 2.5 | R  | 3.4 | R  | 8.0  | R  |
| 2      | 55002   | Core 106 BGII               | 5.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 6.0  | R  |
| 25     | 55003   | NCS 9775 Bt2                | 4.5                                                         | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 3.0  | R  |
| 3      | 55004   | RCH1199BGII                 | 6.5                                                         | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 4.0  | R  |
| 12     | 55005   | KCH9266 BGII                | 4.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.5  | R  |
| 19     | 55006   | C9333 BG-II                 | 5.0                                                         | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 3.5  | R  |
| 6      | 55007   | US 722 BGII                 | 4.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 5.0  | R  |
| 17     | 55008   | VPCH-456 BG II              | 5.0                                                         | R  | 0.0      | DF | 3.0 | R  | 0.5 | R  | 6.5  | R  |
| 1      | 55009   | PCH 4996 Bt2                | 6.5                                                         | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 8.5  | R  |
| 20     | 55010   | ARCH 6677 BGII              | 7.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.0  | R  |
| 5      | 55011   | Super-112 BGII              | 4.5                                                         | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 7.0  | R  |
| 4      | 55012   | <b>NBC 1821 BGII (ZC 1)</b> | 6.6                                                         | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 8.0  | R  |
| 15     | 55013   | KSP 5328 BG II              | 6.0                                                         | R  | 0.0      | DF | 2.0 | R  | 3.2 | R  | 7.0  | R  |
| 8      | 55014   | <b>VSCH 369 BGII (ZC 2)</b> | 4.0                                                         | R  | 0.0      | DF | 0.0 | DF | 4.5 | R  | 7.0  | R  |
| 21     | 55015   | RAHH 1002 BGII              | 4.5                                                         | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.5  | R  |
| 16     | 55016   | DC5107 BGII                 | 6.0                                                         | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 5.0  | R  |
| 14     | 55017   | KCH9265 BGII                | 6.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 7.5  | R  |
| 7      | 55018   | US 723 BGII                 | 5.5                                                         | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 8.5  | R  |
| 10     | 55019   | GCH 1107 BGII               | 4.0                                                         | R  | 0.0      | DF | 2.5 | R  | 0.5 | R  | 5.0  | R  |
| 23     | 55020   | 8811-9 BGII                 | 5.0                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 6.0  | R  |
| 9      | 55021   | RAHH 1004 BGII              | 6.0                                                         | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.5  | R  |
| 18     | 55022   | ECH 999 BG II               | 4.5                                                         | R  | 0.0      | DF | 0.0 | DF | 2.1 | R  | 7.5  | R  |
| 24     | 55023   | KCH9264 BGII                | 6.0                                                         | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 5.0  | R  |
| 13     | 55024   | DGHH- 4854 BGII             | 5.5                                                         | R  | 0.0      | DF | 3.0 | R  | 0.6 | R  | 6.5  | R  |
| 22     | 55025   | PRCH 7992 Bt2               | 6.0                                                         | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 6.0  | R  |

Table 1 (e) Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET-Hybrids IRR) under Protected and Unprotected conditions

| Co de -I | Code- II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |                   |    |     |    |     |    | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |     |    |      |    |
|----------|----------|-----------------------------|-----------------------------------------------------------|----|------|----|------|----|-------------------|----|-----|----|-----|----|-------------------------------------------------------------|----|------|----|-----|----|------|----|
|          |          |                             | Ankur, Warangal                                           |    |      |    |      |    | Kaveri, Hyderabad |    |     |    |     |    | Kaveri, Hyderabad                                           |    |      |    |     |    |      |    |
|          |          |                             | TSV                                                       |    | HLS  |    | GM   |    | ALS               |    | TSV |    | BLB |    | GM                                                          |    | ALS  |    | TSV |    | BLB  |    |
|          |          |                             | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI               | DR | PDI | DR | PDI | DR | PDI                                                         | DR | PDI  | DR | PDI | DR | PDI  | DR |
| 11       | 55001    | RCH1196BGII                 | 8.9                                                       | R  | 14.4 | R  | 4.4  | R  | 10.4              | R  | 1.1 | R  | 4.8 | R  | 11.3                                                        | R  | 13.8 | R  | 4.9 | R  | 8.0  | R  |
| 2        | 55002    | Core 106 BGII               | 8.7                                                       | R  | 10.6 | R  | 6.9  | R  | 9.4               | R  | 2.4 | R  | 5.9 | R  | 15.0                                                        | R  | 16.0 | R  | 6.8 | R  | 10.5 | R  |
| 25       | 55003    | NCS 9775 Bt2                | 13.5                                                      | R  | 17.9 | R  | 6.0  | R  | 9.3               | R  | 2.6 | R  | 5.6 | R  | 13.8                                                        | R  | 14.5 | R  | 7.0 | R  | 11.4 | R  |
| 3        | 55004    | RCH1199BGII                 | 16.0                                                      | R  | 27.0 | MR | 4.8  | R  | 9.3               | R  | 2.6 | R  | 4.1 | R  | 13.8                                                        | R  | 15.8 | R  | 6.3 | R  | 10.2 | R  |
| 12       | 55005    | KCH9266 BGII                | 15.0                                                      | R  | 13.4 | R  | 5.0  | R  | 6.9               | R  | 0.6 | R  | 2.8 | R  | 12.3                                                        | R  | 13.5 | R  | 4.5 | R  | 7.8  | R  |
| 19       | 55006    | C9333 BG-II                 | 18.3                                                      | R  | 17.1 | R  | 9.5  | R  | 8.9               | R  | 3.4 | R  | 5.0 | R  | 15.0                                                        | R  | 15.3 | R  | 6.8 | R  | 9.6  | R  |
| 6        | 55007    | US 722 BGII                 | 22.6                                                      | R  | 16.6 | R  | 6.3  | R  | 10.6              | R  | 1.7 | R  | 5.8 | R  | 14.1                                                        | R  | 17.5 | R  | 5.3 | R  | 10.5 | R  |
| 17       | 55008    | VPCH-456 BG II              | 22.9                                                      | R  | 11.4 | R  | 8.9  | R  | 9.7               | R  | 1.9 | R  | 4.9 | R  | 16.0                                                        | R  | 13.5 | R  | 6.3 | R  | 9.9  | R  |
| 1        | 55009    | PCH 4996 Bt2                | 16.3                                                      | R  | 16.5 | R  | 10.3 | R  | 9.6               | R  | 2.2 | R  | 4.1 | R  | 17.0                                                        | R  | 16.3 | R  | 6.1 | R  | 8.8  | R  |
| 20       | 55010    | ARCH 6677 BGII              | 2.9                                                       | R  | 6.4  | R  | 7.4  | R  | 10.1              | R  | 3.2 | R  | 5.8 | R  | 15.0                                                        | R  | 17.4 | R  | 6.8 | R  | 11.8 | R  |
| 5        | 55011    | Super-112 BGII              | 16.3                                                      | R  | 30.9 | MR | 8.2  | R  | 11.5              | R  | 1.8 | R  | 7.3 | R  | 15.0                                                        | R  | 18.3 | R  | 6.3 | R  | 12.8 | R  |
| 4        | 55012    | <b>NBC 1821 BGII (ZC 1)</b> | 29.3                                                      | MR | 17.2 | R  | 9.2  | R  | 10.5              | R  | 3.1 | R  | 6.6 | R  | 13.5                                                        | R  | 17.0 | R  | 7.0 | R  | 11.0 | R  |
| 15       | 55013    | KSP 5328 BG II              | 24.2                                                      | R  | 14.3 | R  | 10.5 | R  | 10.8              | R  | 1.9 | R  | 6.4 | R  | 17.5                                                        | R  | 17.5 | R  | 6.8 | R  | 12.3 | R  |
| 8        | 55014    | <b>VSCH 369 BGII (ZC 2)</b> | 19.3                                                      | R  | 6.8  | R  | 7.7  | R  | 10.6              | R  | 2.1 | R  | 5.4 | R  | 13.8                                                        | R  | 16.3 | R  | 5.7 | R  | 12.0 | R  |
| 21       | 55015    | RAHH 1002 BGII              | 14                                                        | R  | 13.9 | R  | 7.2  | R  | 6.7               | R  | 2.9 | R  | 2.4 | R  | 13.8                                                        | R  | 15.5 | R  | 6.3 | R  | 10.2 | R  |
| 16       | 55016    | DC5107 BGII                 | 2.7                                                       | R  | 30.3 | MR | 9.7  | R  | 10.9              | R  | 3.1 | R  | 5.4 | R  | 15.0                                                        | R  | 16.3 | R  | 7.0 | R  | 10.0 | R  |
| 14       | 55017    | KCH9265 BGII                | 5.7                                                       | R  | 13.0 | R  | 4.8  | R  | 7.0               | R  | 0.9 | R  | 2.8 | R  | 12.3                                                        | R  | 12.5 | R  | 4.5 | R  | 7.5  | R  |
| 7        | 55018    | US 723 BGII                 | 16.4                                                      | R  | 16.7 | R  | 9.0  | R  | 11.7              | R  | 3.9 | R  | 3.4 | R  | 16.3                                                        | R  | 15.8 | R  | 7.5 | R  | 9.5  | R  |
| 10       | 55019    | GCH 1107 BGII               | 28.7                                                      | MR | 19.5 | R  | 5.4  | R  | 8.4               | R  | 1.2 | R  | 4.4 | R  | 11.8                                                        | R  | 12.5 | R  | 5.5 | R  | 10.0 | R  |
| 23       | 55020    | 8811-9 BGII                 | 19.6                                                      | R  | 31.6 | MR | 6.6  | R  | 10.1              | R  | 2.1 | R  | 5.5 | R  | 14.5                                                        | R  | 17.3 | R  | 6.0 | R  | 12.0 | R  |
| 9        | 55021    | RAHH 1004 BGII              | 22.2                                                      | R  | 16.6 | R  | 9.6  | R  | 11.7              | R  | 3.2 | R  | 7.2 | R  | 13.5                                                        | R  | 15.5 | R  | 7.3 | R  | 10.5 | R  |
| 18       | 55022    | ECH 999 BG II               | 22.5                                                      | R  | 25.3 | MR | 9.2  | R  | 12.7              | R  | 1.1 | R  | 3.4 | R  | 16.5                                                        | R  | 16.3 | R  | 5.5 | R  | 10.0 | R  |
| 24       | 55023    | KCH9264 BGII                | 18.6                                                      | R  | 29.6 | MR | 4.6  | R  | 7.2               | R  | 0.8 | R  | 2.9 | R  | 11.3                                                        | R  | 13.0 | R  | 4.8 | R  | 7.3  | R  |
| 13       | 55024    | DGHH- 4854 BGII             | 18.2                                                      | R  | 29.5 | MR | 7.9  | R  | 7.0               | R  | 2.6 | R  | 5.1 | R  | 14.3                                                        | R  | 16.5 | R  | 7.5 | R  | 11.0 | R  |
| 22       | 55025    | PRCH 7992 Bt2               | 15.3                                                      | R  | 15.4 | R  | 7.9  | R  | 10.3              | R  | 3.6 | R  | 4.8 | R  | 15.5                                                        | R  | 17.3 | R  | 7.4 | R  | 10.8 | R  |



Table 1 (f) Initial Evaluation Trial of Intra-Hirsutum Hybrids – Irrigated (IET-Hybrids IRR) under Protected and Unprotected conditions

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |     |    |                           |    | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |                           |    |
|--------|---------|-----------------------------|-----------------------------------------------------------|----|------|----|-----|----|---------------------------|----|-------------------------------------------------------------|----|------|----|------|----|---------------------------|----|
|        |         |                             | Eldorado Agritech Ltd. Karimnagar                         |    |      |    |     |    | Rallis India Ltd. Medchal |    | Eldorado Agritech Ltd. Karimnagar                           |    |      |    |      |    | Rallis India Ltd. Medchal |    |
|        |         |                             | ALS                                                       |    | GM   |    | TSV |    | ALB                       |    | ALS                                                         |    | GM   |    | TSV  |    | ALB                       |    |
|        |         |                             | PDI                                                       | DR | PDI  | DR | PDI | DR | PDI                       | DR | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI                       | DR |
| 11     | 55001   | RCH1196BGII                 | 0.4                                                       | R  | 9.0  | R  | 5.0 | R  | 5.3                       | R  | 12.5                                                        | R  | 12.0 | R  | 7.00 | R  | 9.5                       | R  |
| 2      | 55002   | Core 106 BGII               | 0.5                                                       | R  | 11.7 | R  | 1.0 | R  | 10.2                      | R  | 17.5                                                        | R  | 16.0 | R  | 4.00 | R  | 14.5                      | R  |
| 25     | 55003   | NCS 9775 Bt2                | 0.6                                                       | R  | 16.5 | R  | 0.0 | R  | 12.7                      | R  | 25.5                                                        | MR | 27.0 | MR | 0.00 | DF | 24.5                      | R  |
| 3      | 55004   | RCH1199BGII                 | 1.1                                                       | R  | 24.7 | R  | 1.0 | R  | 24.0                      | R  | 38.0                                                        | MR | 33.0 | MR | 5.00 | R  | 28.0                      | MR |
| 12     | 55005   | KCH9266 BGII                | 0.6                                                       | R  | 14.7 | R  | 5.0 | R  | 12.3                      | R  | 15.5                                                        | R  | 26.5 | MR | 9.00 | R  | 12.5                      | R  |
| 19     | 55006   | C9333 BG-II                 | 1.1                                                       | R  | 23.6 | R  | 3.0 | R  | 23.2                      | R  | 36.7                                                        | MR | 25.2 | MR | 5.00 | R  | 30.7                      | MR |
| 6      | 55007   | US 722 BGII                 | 0.5                                                       | R  | 12.3 | R  | 1.0 | R  | 9.0                       | R  | 19.5                                                        | R  | 16.5 | R  | 3.00 | R  | 18.5                      | R  |
| 17     | 55008   | VPCH-456 BG II              | 1.2                                                       | R  | 20.2 | R  | 4.0 | R  | 25.3                      | MR | 38.5                                                        | MR | 25.5 | MR | 4.00 | R  | 32.8                      | MR |
| 1      | 55009   | PCH 4996 Bt2                | 0.7                                                       | R  | 11.8 | R  | 0.0 | R  | 16.0                      | R  | 28.0                                                        | MR | 15.0 | R  | 3.00 | R  | 24.0                      | R  |
| 20     | 55010   | ARCH 6677 BGII              | 0.4                                                       | R  | 9.5  | R  | 0.0 | R  | 6.3                       | R  | 14.0                                                        | R  | 16.0 | R  | 0.00 | DF | 10.0                      | R  |
| 5      | 55011   | Super-112 BGII              | 1.2                                                       | R  | 25.0 | R  | 2.0 | R  | 26.1                      | MR | 36.5                                                        | MR | 30.5 | MR | 5.00 | R  | 35.8                      | MR |
| 4      | 55012   | <b>NBC 1821 BGII (ZC 1)</b> | 0.7                                                       | R  | 17.8 | R  | 2.0 | R  | 16.5                      | R  | 27.5                                                        | MR | 21.0 | R  | 5.00 | R  | 25.5                      | MR |
| 15     | 55013   | KSP 5328 BG II              | 0.6                                                       | R  | 14.7 | R  | 3.0 | R  | 13.3                      | R  | 25.5                                                        | MR | 28.0 | MR | 7.00 | R  | 15.5                      | R  |
| 8      | 55014   | <b>VSCH 369 BGII (ZC 2)</b> | 0.8                                                       | R  | 18.3 | R  | 0.7 | R  | 17.3                      | R  | 29.5                                                        | MR | 25.5 | MR | 5.50 | R  | 22.5                      | R  |
| 21     | 55015   | RAHH 1002 BGII              | 0.7                                                       | R  | 13.8 | R  | 1.0 | R  | 14.5                      | R  | 26.5                                                        | MR | 23.0 | R  | 5.00 | R  | 22.5                      | R  |
| 16     | 55016   | DC5107 BGII                 | 0.4                                                       | R  | 7.5  | R  | 0.0 | R  | 7.2                       | R  | 11.5                                                        | R  | 10.5 | R  | 0.00 | DF | 8.5                       | R  |
| 14     | 55017   | KCH9265 BGII                | 0.5                                                       | R  | 8.7  | R  | 4.0 | R  | 9.3                       | R  | 14.0                                                        | R  | 15.0 | R  | 7.00 | R  | 11.0                      | R  |
| 7      | 55018   | US 723 BGII                 | 0.5                                                       | R  | 13.3 | R  | 1.0 | R  | 8.3                       | R  | 15.5                                                        | R  | 19.0 | R  | 5.00 | R  | 14.5                      | R  |
| 10     | 55019   | GCH 1107 BGII               | 1.2                                                       | R  | 28.5 | MR | 4.7 | R  | 27.3                      | MR | 40.5                                                        | MR | 38.5 | MR | 8.50 | R  | 37.5                      | MR |
| 23     | 55020   | 8811-9 BGII                 | 0.9                                                       | R  | 19.8 | R  | 3.7 | R  | 13.0                      | R  | 20.5                                                        | R  | 21.0 | R  | 5.67 | R  | 15.5                      | R  |
| 9      | 55021   | RAHH 1004 BGII              | 1.2                                                       | R  | 26.2 | MR | 4.0 | R  | 28.2                      | MR | 39.0                                                        | MR | 35.0 | MR | 7.00 | R  | 35.5                      | MR |
| 18     | 55022   | ECH 999 BG II               | 0.3                                                       | R  | 9.3  | R  | 0.0 | R  | 4.5                       | R  | 10.5                                                        | R  | 12.5 | R  | 0.00 | DF | 7.5                       | R  |
| 24     | 55023   | KCH9264 BGII                | 0.6                                                       | R  | 17.5 | R  | 0.0 | R  | 6.5                       | R  | 25.5                                                        | MR | 18.0 | R  | 3.00 | R  | 12.5                      | R  |
| 13     | 55024   | DGHH- 4854 BGII             | 1.1                                                       | R  | 24.0 | R  | 0.0 | R  | 22.5                      | R  | 33.0                                                        | MR | 27.0 | MR | 3.00 | R  | 25.5                      | MR |
| 22     | 55025   | PRCH 7992 Bt2               | 1.2                                                       | R  | 29.7 | MR | 4.0 | R  | 15.0                      | R  | 36.5                                                        | MR | 38.0 | MR | 8.00 | R  | 19.5                      | R  |

## Advanced Evaluation Trial of Intra-Hirsutum Bt Hybrids (I) - Irrigated

### *Constitution of Trial*

The trial was constituted with eight Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

| S. No. | Code-I | Code -II | Entries              | Sponsored by                          |
|--------|--------|----------|----------------------|---------------------------------------|
| 1      | 8      | 55041    | NBCH 639             | Navbharat Seed                        |
| 2      | 2      | 55042    | US 720 BGII          | Seedworks                             |
| 3      | 11     | 55043    | VSCH 248 BGII        | Veda Seed Sciences Pvt Ltd            |
| 4      | 5      | 55044    | ECH 189 BGII         | Eldorado                              |
| 5      | 13     | 55045    | KCH 9261 BGII        | Kaveri Seed Co Ltd                    |
| 6      | 4      | 55046    | KCH 9252 BGII        | Kaveri Seed Co Ltd                    |
| 7      | 1      | 55047    | Core 104 BGII        | Coregenes Seed Research India Pvt Ltd |
| 8      | 6      | 55048    | GBCH 1718 BGII       | Green Gold Seeds                      |
| 9      | 10     | 55049    | KCH 9234 BGII        | Kaveri Seed Co Ltd                    |
| 10     | 7      | 55050    | NBC 1821 BGII (ZC 1) |                                       |
| 11     | 3      | 55051    | VSCH 369 BGII (ZC 2) |                                       |
| 12     | 9      | 55052    | VSCH 423 BGII        | Veda Seed Sciences Pvt Ltd            |
| 13     | 12     | 55053    | C 9341 BG-II         | Mahyco                                |

The trial was conducted in nine locations viz., Warangal, Lam, Raichur, B'Gudi, Coimbatore, Hyderabad (Kaveri), Warangal (Core Seeds)\*, Siddipet (Seed works)\*\*, and Kareemnagar (Eldorado).

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

\*\*Trial vitiated due to excessive rainfall

**Spacing:** Recommended spacing for the hybrid has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Table: Plant height (cm) at harvest in H X H hybrids**

| S. No. | Entries                     | W     | L     | R     | C     | F     | K     | S            |
|--------|-----------------------------|-------|-------|-------|-------|-------|-------|--------------|
| 1      | NBCH 639                    | 116.9 | 121.4 | 142.3 | 90.0  | 123.7 | 142.7 | <b>122.8</b> |
| 2      | US 720 BGII                 | 130.6 | 123.5 | 157.9 | 101.7 | 131.0 | 147.2 | <b>132.0</b> |
| 3      | VSCH 248 BGII               | 138.3 | 144.3 | 152.7 | 95.9  | 127.0 | 141.3 | <b>133.3</b> |
| 4      | ECH 189 BGII                | 137.7 | 126.4 | 144.0 | 112.3 | 134.0 | 146.2 | <b>133.4</b> |
| 5      | KCH 9261 BGII               | 127.1 | 140.0 | 154.3 | 95.8  | 132.0 | 151.2 | <b>133.4</b> |
| 6      | KCH 9252 BGII               | 137.3 | 138.9 | 159.6 | 125.5 | 133.0 | 138.5 | <b>138.8</b> |
| 7      | Core 104 BGII               | 158.2 | 146.9 | 155.0 | 113.2 | 144.3 | 141.9 | <b>143.3</b> |
| 8      | GBCH 1718 BGII              | 135.1 | 121.0 | 172.3 | 98.3  | 137.7 | 157.3 | <b>137.0</b> |
| 9      | KCH 9234 BGII               | 136.9 | 122.0 | 163.0 | 111.0 | 135.0 | 151.3 | <b>136.5</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 121.7 | 125.5 | 138.3 | 97.3  | 123.3 | 142.5 | <b>124.8</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 143.4 | 121.7 | 139.0 | 104.5 | 133.7 | 143.6 | <b>131.0</b> |
| 12     | VSCH 423 BGII               | 160.9 | 136.6 | 163.3 | 100.5 | 138.7 | 159.3 | <b>143.2</b> |
| 13     | C 9341 BG-II                | 136.2 | 130.9 | 156.0 | 100.5 | 133.3 | 168.7 | <b>137.6</b> |
|        | CD @ 5%                     | 17.8  | NS    | 7.4   | 15.1  | 3.7   | 15.7  |              |
|        | CV %                        | 7.7   | 11.7  | 4.9   | 8.6   | 8.3   | 6.3   |              |

**Table: Number of monopodia in H X H hybrids**

| S. No. | Entries                     | W    | L    | R    | C    | F    | K    | S          |
|--------|-----------------------------|------|------|------|------|------|------|------------|
| 1      | NBCH 639                    | 1.1  | 1.3  | 1.5  | 0.7  | 1.4  | 1.6  | <b>1.3</b> |
| 2      | US 720 BGII                 | 1.0  | 1.0  | 1.2  | 0.1  | 1.6  | 1.4  | <b>1.1</b> |
| 3      | VSCH 248 BGII               | 1.1  | 1.3  | 0.9  | 0.0  | 1.2  | 1.9  | <b>1.1</b> |
| 4      | ECH 189 BGII                | 1.0  | 0.8  | 1.1  | 0.1  | 1.1  | 2.0  | <b>1.0</b> |
| 5      | KCH 9261 BGII               | 0.8  | 1.5  | 1.3  | 0.1  | 2.3  | 1.7  | <b>1.3</b> |
| 6      | KCH 9252 BGII               | 0.9  | 0.7  | 1.4  | 0.1  | 1.4  | 1.7  | <b>1.0</b> |
| 7      | Core 104 BGII               | 1.3  | 1.3  | 0.5  | 0.1  | 1.9  | 1.5  | <b>1.1</b> |
| 8      | GBCH 1718 BGII              | 0.6  | 0.6  | 0.7  | 0.2  | 1.2  | 1.1  | <b>0.7</b> |
| 9      | KCH 9234 BGII               | 1.1  | 0.5  | 1.2  | 0.1  | 2.2  | 1.7  | <b>1.1</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 1.2  | 0.9  | 1.4  | 0.3  | 1.6  | 1.4  | <b>1.1</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 1.1  | 0.9  | 0.5  | 0.3  | 1.7  | 1.7  | <b>1.0</b> |
| 12     | VSCH 423 BGII               | 1.9  | 0.6  | 1.5  | 0.8  | 2.4  | 1.6  | <b>1.5</b> |
| 13     | C 9341 BG-II                | 0.9  | 1.3  | 1.3  | 0.2  | 2.4  | 1.6  | <b>1.3</b> |
|        | CD @ 5%                     | NS   | 0.2  | 0.3  | NS   | 19.8 | 0.4  |            |
|        | CV %                        | 49.2 | 13.1 | 19.1 | 39.0 | 0.6  | 16.6 |            |



**Table: Number of sympodia in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 17.0     | 21.1 | 20.7    | 14.5       | 14.6               | 23.0                   | <b>18.5</b> |
| 2      | US 720 BGII                 | 19.1     | 17.9 | 23.0    | 15.1       | 14.5               | 22.1                   | <b>18.6</b> |
| 3      | VSCH 248 BGII               | 15.5     | 22.6 | 21.7    | 13.7       | 13.2               | 22.9                   | <b>18.3</b> |
| 4      | ECH 189 BGII                | 19.8     | 22.4 | 18.3    | 15.4       | 13.6               | 22.9                   | <b>18.7</b> |
| 5      | KCH 9261 BGII               | 19.1     | 16.2 | 22.3    | 14.7       | 14.8               | 23.9                   | <b>18.5</b> |
| 6      | KCH 9252 BGII               | 18.7     | 17.7 | 22.0    | 16.5       | 16.0               | 23.3                   | <b>19.0</b> |
| 7      | Core 104 BGII               | 20.9     | 24.5 | 20.7    | 15.7       | 15.8               | 23.0                   | <b>20.1</b> |
| 8      | GBCH 1718 BGII              | 18.0     | 19.3 | 22.3    | 14.6       | 14.8               | 22.6                   | <b>18.6</b> |
| 9      | KCH 9234 BGII               | 18.5     | 17.1 | 21.7    | 16.3       | 15.9               | 22.7                   | <b>18.7</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 16.1     | 17.3 | 18.7    | 14.9       | 13.5               | 22.2                   | <b>17.1</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 18.0     | 17.9 | 17.7    | 15.5       | 14.8               | 23.1                   | <b>17.8</b> |
| 12     | VSCH 423 BGII               | 20.1     | 19.9 | 22.3    | 14.8       | 14.4               | 22.1                   | <b>18.9</b> |
| 13     | C 9341 BG-II                | 18.7     | 18.3 | 23.3    | 15.6       | 15.4               | 23.0                   | <b>19.1</b> |
|        | CD @ 5%                     | 3.0      | 4.3  | 2.4     | NS         | 5.3                | 2.5                    |             |
|        | CV %                        | 9.8      | 13.2 | 11.7    | 9.1        | 1.3                | 6.5                    |             |

**Table: Boll weight (g) in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean       |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|------------|
| 1      | NBCH 639                    | 5.7      | 5.8  | 6.7     | 5.5        | 5.8                | 5.6                    | <b>5.9</b> |
| 2      | US 720 BGII                 | 5.7      | 4.7  | 6.7     | 5.8        | 5.8                | 5.8                    | <b>5.8</b> |
| 3      | VSCH 248 BGII               | 6.4      | 5.8  | 8.2     | 7.1        | 6.1                | 5.6                    | <b>6.5</b> |
| 4      | ECH 189 BGII                | 6.0      | 6.8  | 7.4     | 6.6        | 6.2                | 5.8                    | <b>6.5</b> |
| 5      | KCH 9261 BGII               | 5.7      | 5.8  | 6.6     | 5.8        | 6.0                | 5.8                    | <b>6.0</b> |
| 6      | KCH 9252 BGII               | 5.2      | 4.7  | 6.3     | 5.5        | 5.3                | 5.5                    | <b>5.4</b> |
| 7      | Core 104 BGII               | 5.3      | 6.7  | 6.4     | 5.6        | 5.2                | 5.7                    | <b>5.8</b> |
| 8      | GBCH 1718 BGII              | 5.7      | 5.6  | 7.3     | 5.9        | 5.9                | 5.5                    | <b>6.0</b> |
| 9      | KCH 9234 BGII               | 4.7      | 5.4  | 5.8     | 5.5        | 5.4                | 5.5                    | <b>5.4</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 5.4      | 5.8  | 6.6     | 6.6        | 5.5                | 5.4                    | <b>5.9</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 5.0      | 5.8  | 6.1     | 5.4        | 5.5                | 5.8                    | <b>5.6</b> |
| 12     | VSCH 423 BGII               | 4.7      | 5.7  | 5.9     | 5.2        | 5.0                | 5.3                    | <b>5.3</b> |
| 13     | C 9341 BG-II                | 5.6      | 5.8  | 7.2     | 6.2        | 5.7                | 5.8                    | <b>6.1</b> |
|        | CD @ 5%                     | 0.7      | NS   | 0.4     | 0.4        | 5.5                | 0.5                    |            |
|        | CV %                        | 7.6      | 13.9 | 6.5     | 4.4        | 0.5                | 5.5                    |            |



**Table: Number of bolls / plant in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 22.7     | 46.7 | 33.0    | 21.0       | 33.7               | 40.4                   | <b>32.9</b> |
| 2      | US 720 BGII                 | 27.7     | 28.3 | 36.7    | 19.5       | 37.3               | 48.5                   | <b>33.0</b> |
| 3      | VSCH 248 BGII               | 21.9     | 47.7 | 42.1    | 20.2       | 40.3               | 41.1                   | <b>35.6</b> |
| 4      | ECH 189 BGII                | 28.3     | 68.5 | 36.0    | 23.5       | 33.0               | 46.3                   | <b>39.3</b> |
| 5      | KCH 9261 BGII               | 38.7     | 40.1 | 40.7    | 21.3       | 40.0               | 48.8                   | <b>38.3</b> |
| 6      | KCH 9252 BGII               | 34.5     | 29.5 | 38.3    | 26.5       | 39.7               | 50.1                   | <b>36.4</b> |
| 7      | Core 104 BGII               | 38.1     | 68.2 | 40.7    | 27.0       | 38.3               | 48.3                   | <b>43.4</b> |
| 8      | GBCH 1718 BGII              | 31.5     | 38.3 | 38.0    | 19.7       | 36.7               | 46.1                   | <b>35.1</b> |
| 9      | KCH 9234 BGII               | 33.7     | 45.4 | 37.0    | 25.8       | 40.3               | 45.6                   | <b>38.0</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 22.9     | 45.1 | 32.0    | 19.4       | 32.0               | 35.8                   | <b>31.2</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 25.6     | 49.3 | 38.0    | 27.3       | 39.7               | 37.7                   | <b>36.3</b> |
| 12     | VSCH 423 BGII               | 37.3     | 51.3 | 38.0    | 24.7       | 32.0               | 48.7                   | <b>38.7</b> |
| 13     | C 9341 BG-II                | 36.5     | 47.2 | 32.7    | 24.6       | 38.3               | 45.6                   | <b>37.5</b> |
|        | CD @ 5%                     | NS       | 10.6 | 3.1     | 5.2        | 8.1                | 6.5                    |             |
|        | CV %                        | 27.7     | 13.4 | 8.6     | 13.3       | 5.0                | 8.5                    |             |

**Table: Number of bolls / sq.m. in H X H hybrids**

| S. No. | Entries                     | Lam   | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|-------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 95.0  | 51.9       | 46.8               | 64.1                   | <b>64.5</b> |
| 2      | US 720 BGII                 | 57.6  | 48.1       | 51.9               | 77.0                   | <b>58.7</b> |
| 3      | VSCH 248 BGII               | 96.9  | 49.9       | 56.0               | 65.2                   | <b>67.0</b> |
| 4      | ECH 189 BGII                | 139.2 | 58.1       | 45.8               | 73.4                   | <b>79.1</b> |
| 5      | KCH 9261 BGII               | 81.3  | 52.5       | 55.6               | 77.5                   | <b>66.7</b> |
| 6      | KCH 9252 BGII               | 60.1  | 65.3       | 55.1               | 79.6                   | <b>65.0</b> |
| 7      | Core 104 BGII               | 138.5 | 66.7       | 53.2               | 76.6                   | <b>83.8</b> |
| 8      | GBCH 1718 BGII              | 77.6  | 48.7       | 50.9               | 73.1                   | <b>62.6</b> |
| 9      | KCH 9234 BGII               | 92.1  | 63.7       | 56.0               | 72.3                   | <b>71.0</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 91.8  | 47.9       | 44.4               | 56.8                   | <b>60.2</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 100.5 | 67.3       | 55.1               | 59.8                   | <b>70.7</b> |
| 12     | VSCH 423 BGII               | 104.8 | 61.1       | 44.4               | 77.3                   | <b>71.9</b> |
| 13     | C 9341 BG-II                | 96.1  | 60.7       | 53.2               | 72.4                   | <b>70.6</b> |
|        | CD @ 5%                     | 22.1  | 12.8       | 8.1                | 10.2                   |             |
|        | CV %                        | 13.8  | 13.3       | 7.0                | 8.5                    |             |



Table: Lint Index (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean       |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|------------|
| 1      | NBCH 639                    | 5.2      | 6.2  | 6.3     | 6.7        | 5.1                | 5.1                    | <b>5.8</b> |
| 2      | US 720 BGII                 | 5.4      | 4.3  | 6.0     | 6.5        | 5.4                | 5.8                    | <b>5.6</b> |
| 3      | VSCH 248 BGII               | 6.1      | 5.4  | 7.3     | 8.0        | 5.9                | 6.0                    | <b>6.5</b> |
| 4      | ECH 189 BGII                | 6.6      | 6.8  | 6.9     | 7.6        | 6.0                | 6.4                    | <b>6.7</b> |
| 5      | KCH 9261 BGII               | 5.9      | 5.7  | 6.4     | 7.4        | 5.8                | 6.6                    | <b>6.3</b> |
| 6      | KCH 9252 BGII               | 5.0      | 4.8  | 5.6     | 5.8        | 4.8                | 5.1                    | <b>5.2</b> |
| 7      | Core 104 BGII               | 6.2      | 6.3  | 7.1     | 7.3        | 6.3                | 6.2                    | <b>6.6</b> |
| 8      | GBCH 1718 BGII              | 5.7      | 5.7  | 6.0     | 6.8        | 5.9                | 5.0                    | <b>5.9</b> |
| 9      | KCH 9234 BGII               | 4.7      | 5.9  | 5.3     | 6.0        | 5.0                | 5.2                    | <b>5.4</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 5.1      | 5.9  | 6.4     | 7.1        | 4.7                | 4.8                    | <b>5.7</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 6.3      | 5.4  | 7.3     | 8.2        | 6.4                | 6.4                    | <b>6.7</b> |
| 12     | VSCH 423 BGII               | 6.0      | 6.5  | 6.8     | 7.2        | 5.9                | 5.5                    | <b>6.3</b> |
| 13     | C 9341 BG-II                | 5.3      | 4.8  | 6.4     | 6.8        | 5.5                | 5.7                    | <b>5.8</b> |
|        | CD @ 5%                     | 0.5      | 1.2  | 0.3     | 0.5        | 4.5                | 0.8                    |            |
|        | CV %                        | 5.0      | 12.7 | 4.7     | 4.4        | 0.4                | 8.0                    |            |

Table: Seed Index (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 11.8     | 11.4 | 11.7    | 12.2       | 9.6                | 10.3                   | <b>11.2</b> |
| 2      | US 720 BGII                 | 11.7     | 9.9  | 11.0    | 12.1       | 9.3                | 10.7                   | <b>10.8</b> |
| 3      | VSCH 248 BGII               | 12.0     | 10.8 | 12.6    | 13.2       | 9.8                | 11.0                   | <b>11.6</b> |
| 4      | ECH 189 BGII                | 12.4     | 11.1 | 11.9    | 12.5       | 10.2               | 11.0                   | <b>11.5</b> |
| 5      | KCH 9261 BGII               | 10.5     | 11.7 | 10.2    | 11.1       | 8.7                | 11.0                   | <b>10.5</b> |
| 6      | KCH 9252 BGII               | 10.2     | 11.0 | 10.0    | 11.0       | 8.3                | 10.7                   | <b>10.2</b> |
| 7      | Core 104 BGII               | 11.1     | 10.4 | 11.1    | 11.4       | 9.7                | 11.0                   | <b>10.8</b> |
| 8      | GBCH 1718 BGII              | 12.3     | 11.9 | 12.1    | 12.5       | 10.4               | 10.3                   | <b>11.6</b> |
| 9      | KCH 9234 BGII               | 9.3      | 11.5 | 9.8     | 11.1       | 8.7                | 10.3                   | <b>10.1</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 11.4     | 10.8 | 12.1    | 12.6       | 9.0                | 10.0                   | <b>11.0</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 10.3     | 12.2 | 9.7     | 10.8       | 8.7                | 10.0                   | <b>10.3</b> |
| 12     | VSCH 423 BGII               | 11.2     | 11.0 | 11.2    | 11.6       | 9.3                | 10.0                   | <b>10.7</b> |
| 13     | C 9341 BG-II                | 11.6     | 10.9 | 12.5    | 13.3       | 9.8                | 11.7                   | <b>11.6</b> |
|        | CD @ 5%                     | 1.0      | NS   | 0.3     | 1.1        | 3.7                | 1.2                    |             |
|        | CV %                        | 5.1      | 12.1 | 3.0     | 5.5        | 0.6                | 6.7                    |             |



Table: Ginning outturn (%) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 30.6     | 35.2 | 35.1    | 35.2       | 34.7               | 32.9                   | <b>34.0</b> |
| 2      | US 720 BGII                 | 31.4     | 30.0 | 35.4    | 35.1       | 36.6               | 35.2                   | <b>34.0</b> |
| 3      | VSCH 248 BGII               | 33.8     | 33.9 | 36.7    | 37.7       | 37.3               | 35.3                   | <b>35.8</b> |
| 4      | ECH 189 BGII                | 34.5     | 38.1 | 36.7    | 37.7       | 37.2               | 36.9                   | <b>36.9</b> |
| 5      | KCH 9261 BGII               | 36.0     | 33.0 | 38.7    | 40.1       | 39.9               | 37.6                   | <b>37.6</b> |
| 6      | KCH 9252 BGII               | 32.6     | 30.1 | 35.9    | 34.7       | 36.6               | 32.4                   | <b>33.7</b> |
| 7      | Core 104 BGII               | 36.0     | 38.1 | 39.1    | 38.8       | 39.4               | 36.2                   | <b>37.9</b> |
| 8      | GBCH 1718 BGII              | 31.7     | 32.3 | 36.3    | 35.1       | 36.0               | 32.8                   | <b>34.0</b> |
| 9      | KCH 9234 BGII               | 33.5     | 34.0 | 34.8    | 35.2       | 36.7               | 33.6                   | <b>34.6</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 30.9     | 35.3 | 34.8    | 35.9       | 34.4               | 32.7                   | <b>34.0</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 37.9     | 31.0 | 43.1    | 43.1       | 42.4               | 39.0                   | <b>39.4</b> |
| 12     | VSCH 423 BGII               | 34.8     | 37.3 | 37.6    | 38.2       | 38.9               | 35.6                   | <b>37.1</b> |
| 13     | C 9341 BG-II                | 31.3     | 30.7 | 33.8    | 33.7       | 35.7               | 32.7                   | <b>33.0</b> |
|        | CD @ 5%                     | 1.7      | NS   | 1.0     | 1.8        | 1.6                | 1.5                    |             |
|        | CV %                        | 3.0      | 12.9 | 2.7     | 3.0        | 1.0                | 2.6                    |             |

Table: Upper Half Mean Length (mm) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 27.7     | 30.0 | 31.0    | 30.2       | 29.9               | 29.1                   | <b>29.7</b> |
| 2      | US 720 BGII                 | 29.1     | 29.1 | 28.6    | 30.8       | 29.0               | 29.8                   | <b>29.4</b> |
| 3      | VSCH 248 BGII               | 28.2     | 29.5 | 31.5    | 31.1       | 29.4               | 30.9                   | <b>30.1</b> |
| 4      | ECH 189 BGII                | 28.5     | 28.6 | 29.3    | 30.7       | 29.6               | 30.6                   | <b>29.6</b> |
| 5      | KCH 9261 BGII               | 29.6     | 30.5 | 30.1    | 29.1       | 29.4               | 31.0                   | <b>30.0</b> |
| 6      | KCH 9252 BGII               | 27.4     | 28.8 | 29.1    | 28.7       | 26.4               | 28.2                   | <b>28.1</b> |
| 7      | Core 104 BGII               | 27.9     | 28.5 | 28.5    | 28.4       | 27.8               | 29.5                   | <b>28.4</b> |
| 8      | GBCH 1718 BGII              | 30.5     | 31.7 | 32.4    | 31.6       | 30.9               | 31.9                   | <b>31.5</b> |
| 9      | KCH 9234 BGII               | 27.5     | 27.2 | 26.6    | 26.9       | 26.1               | 28.0                   | <b>27.1</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 28.1     | 30.6 | 31.3    | 30.5       | 29.0               | 30.6                   | <b>30.0</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 26.8     | 26.7 | 25.8    | 26.6       | 26.1               | 27.1                   | <b>26.5</b> |
| 12     | VSCH 423 BGII               | 27.9     | 28.1 | 30.9    | 27.9       | 25.8               | 29.2                   | <b>28.3</b> |
| 13     | C 9341 BG-II                | 28.6     | 29.5 | 29.6    | 28.7       | 27.6               | 29.1                   | <b>28.9</b> |



**Table: Uniformity index under HVI Mode in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 82.0     | 86.0 | 87.0    | 84.9       | 85.0               | 83.0                   | <b>84.7</b> |
| 2      | US 720 BGII                 | 84.0     | 86.0 | 84.0    | 84.9       | 84.0               | 85.0                   | <b>84.7</b> |
| 3      | VSCH 248 BGII               | 83.0     | 84.0 | 85.0    | 85.1       | 84.0               | 85.0                   | <b>84.4</b> |
| 4      | ECH 189 BGII                | 82.0     | 85.0 | 86.0    | 85.6       | 86.0               | 86.0                   | <b>85.1</b> |
| 5      | KCH 9261 BGII               | 84.0     | 86.0 | 86.0    | 85.4       | 85.0               | 85.0                   | <b>85.2</b> |
| 6      | KCH 9252 BGII               | 85.0     | 86.0 | 84.0    | 84.4       | 84.0               | 87.0                   | <b>85.1</b> |
| 7      | Core 104 BGII               | 84.0     | 84.0 | 86.0    | 85.6       | 85.0               | 86.0                   | <b>85.1</b> |
| 8      | GBCH 1718 BGII              | 84.0     | 85.0 | 87.0    | 86.8       | 85.0               | 85.0                   | <b>85.5</b> |
| 9      | KCH 9234 BGII               | 85.0     | 84.0 | 84.0    | 85.9       | 85.0               | 86.0                   | <b>85.0</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 81.0     | 86.0 | 86.0    | 85.0       | 85.0               | 85.0                   | <b>84.7</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 84.0     | 85.0 | 83.0    | 84.8       | 83.0               | 86.0                   | <b>84.3</b> |
| 12     | VSCH 423 BGII               | 83.0     | 85.0 | 87.0    | 84.8       | 85.0               | 86.0                   | <b>85.1</b> |
| 13     | C 9341 BG-II                | 85.0     | 86.0 | 86.0    | 85.1       | 86.0               | 87.0                   | <b>85.9</b> |

**Table: Micronaire under HVI Mode in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|--------------------|------------------------|------------|
| 1      | NBCH 639                    | 4.2      | 4.4 | 4.2     | 3.9        | 3.7                | 3.7                    | <b>4.0</b> |
| 2      | US 720 BGII                 | 4.9      | 5.5 | 5.9     | 4.8        | 4.6                | 4.8                    | <b>5.1</b> |
| 3      | VSCH 248 BGII               | 4.8      | 5.0 | 5.1     | 4.8        | 4.0                | 4.8                    | <b>4.8</b> |
| 4      | ECH 189 BGII                | 4.7      | 5.0 | 4.8     | 4.4        | 3.9                | 4.0                    | <b>4.5</b> |
| 5      | KCH 9261 BGII               | 4.7      | 4.6 | 5.0     | 4.5        | 4.2                | 4.2                    | <b>4.5</b> |
| 6      | KCH 9252 BGII               | 4.7      | 5.4 | 4.9     | 4.7        | 3.6                | 4.6                    | <b>4.7</b> |
| 7      | Core 104 BGII               | 4.8      | 5.2 | 5.2     | 5.2        | 4.2                | 4.8                    | <b>4.9</b> |
| 8      | GBCH 1718 BGII              | 4.4      | 5.0 | 4.6     | 4.3        | 4.0                | 4.0                    | <b>4.4</b> |
| 9      | KCH 9234 BGII               | 5.0      | 5.2 | 5.0     | 4.9        | 4.2                | 4.7                    | <b>4.8</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 4.6      | 4.8 | 4.5     | 4.5        | 3.5                | 4.1                    | <b>4.3</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 5.4      | 5.9 | 5.4     | 5.4        | 5.1                | 5.4                    | <b>5.4</b> |
| 12     | VSCH 423 BGII               | 5.4      | 5.9 | 5.1     | 5.8        | 5.0                | 5.7                    | <b>5.5</b> |
| 13     | C 9341 BG-II                | 4.4      | 4.5 | 4.8     | 4.7        | 4.4                | 4.6                    | <b>4.6</b> |





**Table: Tenacity under HVI Mode in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | NBCH 639                    | 29.7     | 32.2 | 30.4    | 29.5       | 28.5               | 29.9                   | <b>30.0</b> |
| 2      | US 720 BGII                 | 31.8     | 33.0 | 27.4    | 28.6       | 28.6               | 31.6                   | <b>30.2</b> |
| 3      | VSCH 248 BGII               | 30.8     | 30.6 | 30.9    | 28.9       | 26.3               | 31.3                   | <b>29.8</b> |
| 4      | ECH 189 BGII                | 30.9     | 31.2 | 30.6    | 29.4       | 30.2               | 30.0                   | <b>30.4</b> |
| 5      | KCH 9261 BGII               | 30.9     | 32.8 | 30.9    | 29.3       | 27.9               | 32.2                   | <b>30.7</b> |
| 6      | KCH 9252 BGII               | 29.3     | 30.5 | 30.0    | 29.0       | 28.3               | 30.5                   | <b>29.6</b> |
| 7      | Core 104 BGII               | 29.6     | 30.4 | 27.7    | 27.1       | 27.8               | 29.7                   | <b>28.7</b> |
| 8      | GBCH 1718 BGII              | 30.8     | 33.2 | 30.2    | 28.9       | 27.0               | 29.0                   | <b>29.9</b> |
| 9      | KCH 9234 BGII               | 29.3     | 29.1 | 29.5    | 28.7       | 27.9               | 29.8                   | <b>29.1</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 31.0     | 33.2 | 29.9    | 30.3       | 29.0               | 32.4                   | <b>31.0</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 28.4     | 28.4 | 26.2    | 26.3       | 25.0               | 27.4                   | <b>27.0</b> |
| 12     | VSCH 423 BGII               | 30.3     | 31.1 | 29.6    | 26.2       | 24.2               | 31.6                   | <b>28.8</b> |
| 13     | C 9341 BG-II                | 30.6     | 31.5 | 32.4    | 29.8       | 28.4               | 30.2                   | <b>30.5</b> |

**Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------------|------------------------|--------------|
| 1      | NBCH 639                    | 6.71     | 14.52 | 19.15      | 23.51              | 10.77                  | <b>14.93</b> |
| 2      | US 720 BGII                 | 8.16     | 15.95 | 17.53      | 23.63              | 13.97                  | <b>15.85</b> |
| 3      | VSCH 248 BGII               | 13.59    | 19.05 | 26.17      | 27.80              | 12.82                  | <b>19.89</b> |
| 4      | ECH 189 BGII                | 11.12    | 22.93 | 25.72      | 22.97              | 13.06                  | <b>19.16</b> |
| 5      | KCH 9261 BGII               | 13.83    | 12.38 | 20.74      | 26.88              | 14.60                  | <b>17.69</b> |
| 6      | KCH 9252 BGII               | 12.53    | 15.56 | 28.54      | 26.37              | 13.12                  | <b>19.22</b> |
| 7      | Core 104 BGII               | 12.68    | 22.30 | 29.32      | 25.03              | 13.53                  | <b>20.57</b> |
| 8      | GBCH 1718 BGII              | 8.69     | 17.22 | 21.45      | 22.82              | 11.89                  | <b>16.41</b> |
| 9      | KCH 9234 BGII               | 9.31     | 18.33 | 30.18      | 25.26              | 11.30                  | <b>18.88</b> |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 6.15     | 17.86 | 24.27      | 22.52              | 10.99                  | <b>16.36</b> |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 7.53     | 18.97 | 22.97      | 24.45              | 11.90                  | <b>17.16</b> |
| 12     | VSCH 423 BGII               | 10.05    | 18.89 | 16.90      | 22.30              | 13.61                  | <b>16.35</b> |
| 13     | C 9341 BG-II                | 11.75    | 18.73 | 22.76      | 23.77              | 12.67                  | <b>17.94</b> |
|        | CD @ 5%                     | 3.43     | 4.17  | 5.40       | 4.70               | 3.44                   |              |
|        | CV %                        | 19.88    | 13.96 | 13.54      | 1.94               | 16.18                  |              |



**Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------------|------------------------|--------------|
| 1      | NBCH 639                    | 5.84     | 9.68  | 10.33      | 4.29               | 7.13                   | <b>7.45</b>  |
| 2      | US 720 BGII                 | 9.65     | 10.63 | 10.45      | 5.05               | 8.23                   | <b>8.80</b>  |
| 3      | VSCH 248 BGII               | 10.46    | 12.70 | 5.84       | 6.43               | 5.45                   | <b>8.18</b>  |
| 4      | ECH 189 BGII                | 8.02     | 15.29 | 10.00      | 6.39               | 9.25                   | <b>9.79</b>  |
| 5      | KCH 9261 BGII               | 11.08    | 8.25  | 9.79       | 7.31               | 7.94                   | <b>8.87</b>  |
| 6      | KCH 9252 BGII               | 10.85    | 10.37 | 5.39       | 7.20               | 8.89                   | <b>8.54</b>  |
| 7      | Core 104 BGII               | 8.88     | 14.87 | 10.99      | 4.10               | 8.40                   | <b>9.45</b>  |
| 8      | GBCH 1718 BGII              | 9.43     | 11.48 | 7.94       | 6.68               | 8.19                   | <b>8.74</b>  |
| 9      | KCH 9234 BGII               | 10.82    | 12.22 | 5.80       | 7.60               | 9.96                   | <b>9.28</b>  |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 6.34     | 11.90 | 8.27       | 5.01               | 6.14                   | <b>7.53</b>  |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 5.69     | 12.65 | 12.96      | 6.89               | 5.41                   | <b>8.72</b>  |
| 12     | VSCH 423 BGII               | 10.80    | 12.59 | 14.49      | 5.97               | 8.13                   | <b>10.40</b> |
| 13     | C 9341 BG-II                | 10.92    | 12.49 | 13.99      | 6.85               | 8.36                   | <b>10.52</b> |
|        | CD @ 5%                     | 2.62     | 2.75  | 4.80       | 14.79              | 1.87                   |              |
|        | CV %                        | 16.90    | 13.81 | 29.08      | 1.53               | 14.23                  |              |

**Table: Total Seed Cotton Yield (q/ha) in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|----------|-------|---------|------------|--------------------|------------------------|--------------|------|-----------------------|
| 1      | NBCH 639                    | 12.55    | 24.21 | 35.99   | 29.48      | 27.80              | 17.90                  | <b>24.66</b> | 13   | -12.8                 |
| 2      | US 720 BGII                 | 17.81    | 26.59 | 37.39   | 27.98      | 28.68              | 22.20                  | <b>26.78</b> | 11   | -5.4                  |
| 3      | VSCH 248 BGII               | 24.04    | 31.75 | 43.26   | 32.02      | 34.23              | 18.27                  | <b>30.60</b> | 2    | 8.1                   |
| 4      | ECH 189 BGII                | 19.14    | 38.22 | 34.34   | 35.72      | 29.36              | 22.30                  | <b>29.85</b> | 3    | 5.5                   |
| 5      | KCH 9261 BGII               | 24.91    | 20.63 | 43.38   | 30.53      | 34.19              | 22.53                  | <b>29.36</b> | 7    | 3.8                   |
| 6      | KCH 9252 BGII               | 23.38    | 25.93 | 38.66   | 33.93      | 33.58              | 22.01                  | <b>29.58</b> | 5    | 4.6                   |
| 7      | Core 104 BGII               | 21.56    | 37.17 | 43.13   | 40.31      | 29.13              | 21.93                  | <b>32.21</b> | 1    | 13.8                  |
| 8      | GBCH 1718 BGII              | 18.12    | 28.70 | 41.03   | 29.39      | 29.50              | 20.08                  | <b>27.80</b> | 10   | -1.7                  |
| 9      | KCH 9234 BGII               | 20.12    | 30.56 | 35.42   | 35.99      | 32.85              | 21.26                  | <b>29.37</b> | 6    | 3.8                   |
| 10     | <b>NBC 1821 BGII (ZC 1)</b> | 12.49    | 29.76 | 34.45   | 32.55      | 27.53              | 17.13                  | <b>25.65</b> | 12   | -9.3                  |
| 11     | <b>VSCH 369 BGII (ZC 2)</b> | 13.22    | 31.61 | 40.34   | 35.94      | 31.34              | 17.31                  | <b>28.29</b> | 9    | 0.0                   |
| 12     | VSCH 423 BGII               | 20.86    | 31.48 | 40.75   | 31.39      | 28.28              | 21.74                  | <b>29.08</b> | 8    | 2.8                   |
| 13     | C 9341 BG-II                | 22.67    | 31.22 | 35.37   | 36.75      | 30.61              | 21.03                  | <b>29.61</b> | 4    | 4.7                   |
|        | CD @ 5%                     | 5.41     | 6.92  | 2.88    | 5.90       | 4.52               | 2.54                   |              |      |                       |
|        | CV %                        | 16.53    | 13.89 | 7.64    | 10.55      | 2.33               | 7.38                   |              |      |                       |



### Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced H X H trial in South Zone under Protected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 1.03                              | 1.01 | 3.30 | 3.82 | <b>2.29</b> | <b>BETL</b> |
| US 720 BGII          | 0.97                              | 0.66 | 3.39 | 4.56 | <b>2.39</b> | <b>BETL</b> |
| VSCH 248 BGII        | 1.43                              | 0.88 | 4.19 | 4.36 | <b>2.71</b> | <b>BETL</b> |
| ECH 189 BGII         | 0.80                              | 1.01 | 3.33 | 4.27 | <b>2.35</b> | <b>BETL</b> |
| KCH 9261 BGII        | 0.63                              | 1.12 | 3.93 | 4.18 | <b>2.47</b> | <b>BETL</b> |
| KCH 9252 BGII        | 1.07                              | 2.13 | 4.87 | 4.67 | <b>3.18</b> | <b>BETL</b> |
| Core 104 BGII        | 1.13                              | 0.86 | 3.76 | 4.33 | <b>2.52</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 1.07                              | 0.81 | 4.01 | 4.24 | <b>2.53</b> | <b>BETL</b> |
| KCH 9234 BGII        | 1.87                              | 1.63 | 4.66 | 3.73 | <b>2.97</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.90                              | 1.10 | 3.23 | 4.20 | <b>2.36</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 1.37                              | 0.83 | 4.04 | 4.40 | <b>2.66</b> | <b>BETL</b> |
| VSCH 423 BGII        | 1.50                              | 0.61 | 4.19 | 4.82 | <b>2.78</b> | <b>BETL</b> |
| C 9341 BG-II         | 1.43                              | 0.72 | 4.01 | 3.98 | <b>2.54</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Protected Conditions –  
Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 1.87                                   | 0.11 | 1.58 | 1.98 | <b>1.38</b> | <b>BETL</b> |
| US 720 BGII          | 1.60                                   | 0.02 | 2.11 | 2.42 | <b>1.54</b> | <b>BETL</b> |
| VSCH 248 BGII        | 2.00                                   | 0.18 | 1.87 | 1.84 | <b>1.47</b> | <b>BETL</b> |
| ECH 189 BGII         | 1.97                                   | 0.12 | 1.82 | 2.13 | <b>1.51</b> | <b>BETL</b> |
| KCH 9261 BGII        | 1.43                                   | 0.04 | 1.40 | 2.29 | <b>1.29</b> | <b>BETL</b> |
| KCH 9252 BGII        | 2.00                                   | 0.02 | 1.67 | 2.49 | <b>1.54</b> | <b>BETL</b> |
| Core 104 BGII        | 1.97                                   | 0.07 | 1.58 | 2.11 | <b>1.43</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 2.23                                   | 0.04 | 1.69 | 2.09 | <b>1.51</b> | <b>BETL</b> |
| KCH 9234 BGII        | 2.37                                   | 0.09 | 1.00 | 2.29 | <b>1.44</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 2.13                                   | 0.02 | 1.13 | 2.04 | <b>1.33</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 1.80                                   | 0.07 | 1.84 | 2.60 | <b>1.58</b> | <b>BETL</b> |
| VSCH 423 BGII        | 2.03                                   | 0.07 | 0.98 | 2.02 | <b>1.28</b> | <b>BETL</b> |
| C 9341 BG-II         | 1.93                                   | 0.04 | 1.64 | 2.22 | <b>1.46</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Advanced H X H trial in South Zone under Protected Conditions – JIG

| Name of Entry        | JIG/plant |    |     |    |      | Remark |
|----------------------|-----------|----|-----|----|------|--------|
|                      | GU        | RA | CBE | WR | Mean |        |
| NBCH 639             | I         | I  | I   | I  | I    |        |
| US 720 BGII          | I         | I  | I   | II | I    |        |
| VSCH 248 BGII        | I         | I  | I   | I  | I    |        |
| ECH 189 BGII         | II        | I  | I   | I  | I    |        |
| KCH 9261 BGII        | I         | I  | I   | I  | I    |        |
| KCH 9252 BGII        | I         | I  | I   | I  | I    |        |
| Core 104 BGII        | I         | I  | I   | I  | I    |        |
| GBCH 1718 BGII       | I         | I  | I   | I  | I    |        |
| KCH 9234 BGII        | I         | I  | I   | I  | I    |        |
| NBC 1821 BGII (ZC 1) | I         | I  | I   | I  | I    |        |
| VSCH 369 BGII (ZC 2) | I         | I  | I   | II | I    |        |
| VSCH 423 BGII        | II        | I  | I   | II | II   |        |
| C 9341 BG-II         | I         | I  | I   | I  | I    |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H trial in South Zone under Protected Conditions – Thrips

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 4.33                               | 3.79 | 2.11 | 8.04 | <b>4.57</b> | <b>BETL</b> |
| US 720 BGII          | 3.67                               | 3.29 | 2.04 | 7.96 | <b>4.24</b> | <b>BETL</b> |
| VSCH 248 BGII        | 3.47                               | 3.29 | 2.13 | 8.04 | <b>4.23</b> | <b>BETL</b> |
| ECH 189 BGII         | 3.93                               | 3.99 | 1.64 | 8.80 | <b>4.59</b> | <b>BETL</b> |
| KCH 9261 BGII        | 2.80                               | 4.49 | 2.13 | 8.36 | <b>4.44</b> | <b>BETL</b> |
| KCH 9252 BGII        | 2.70                               | 3.59 | 2.64 | 8.20 | <b>4.28</b> | <b>BETL</b> |
| Core 104 BGII        | 3.03                               | 3.59 | 2.31 | 8.02 | <b>4.24</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 3.30                               | 4.79 | 2.16 | 8.29 | <b>4.63</b> | <b>BETL</b> |
| KCH 9234 BGII        | 2.87                               | 4.39 | 2.24 | 9.02 | <b>4.63</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 3.70                               | 4.99 | 1.67 | 9.53 | <b>4.97</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 4.53                               | 3.19 | 2.36 | 7.71 | <b>4.45</b> | <b>BETL</b> |
| VSCH 423 BGII        | 3.53                               | 3.19 | 2.24 | 9.64 | <b>4.65</b> | <b>BETL</b> |
| C 9341 BG-II         | 4.23                               | 4.19 | 1.93 | 9.60 | <b>4.99</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 0.03                                 | 0.02 | 0.96 | 1.09 | <b>0.53</b> | <b>BETL</b> |
| US 720 BGII          | 0.00                                 | 0.02 | 1.03 | 1.20 | <b>0.56</b> | <b>BETL</b> |
| VSCH 248 BGII        | 0.03                                 | 0.04 | 0.99 | 1.00 | <b>0.52</b> | <b>BETL</b> |
| ECH 189 BGII         | 0.00                                 | 0.07 | 1.10 | 1.02 | <b>0.55</b> | <b>BETL</b> |
| KCH 9261 BGII        | 0.03                                 | 0.02 | 1.03 | 1.20 | <b>0.57</b> | <b>BETL</b> |
| KCH 9252 BGII        | 0.10                                 | 0.04 | 1.11 | 1.20 | <b>0.61</b> | <b>BETL</b> |
| Core 104 BGII        | 0.07                                 | 0.06 | 0.93 | 1.13 | <b>0.55</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 0.03                                 | 0.01 | 0.67 | 1.09 | <b>0.45</b> | <b>BETL</b> |
| KCH 9234 BGII        | 0.00                                 | 0.07 | 0.95 | 0.78 | <b>0.45</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.03                                 | 0.07 | 0.68 | 0.78 | <b>0.39</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 0.10                                 | 0.04 | 0.96 | 1.13 | <b>0.56</b> | <b>BETL</b> |
| VSCH 423 BGII        | 0.07                                 | 0.06 | 1.21 | 1.27 | <b>0.65</b> | <b>BETL</b> |
| C 9341 BG-II         | 0.03                                 | 0.02 | 1.04 | 1.17 | <b>0.56</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| NBCH 639             | 0.17                        | 0.45 | 0.16 | 0.07 | <b>0.21</b> |        |
| US 720 BGII          | 0.07                        | 0.34 | 0.11 | 0.09 | <b>0.15</b> |        |
| VSCH 248 BGII        | 0.03                        | 0.78 | 0.16 | 0.11 | <b>0.27</b> |        |
| ECH 189 BGII         | 0.00                        | 0.90 | 0.18 | 0.09 | <b>0.29</b> |        |
| KCH 9261 BGII        | 0.10                        | 1.34 | 0.22 | 0.11 | <b>0.44</b> |        |
| KCH 9252 BGII        | 0.20                        | 0.90 | 0.11 | 0.09 | <b>0.32</b> |        |
| Core 104 BGII        | 0.00                        | 0.56 | 0.13 | 0.13 | <b>0.21</b> |        |
| GBCH 1718 BGII       | 0.10                        | 1.12 | 0.18 | 0.07 | <b>0.37</b> |        |
| KCH 9234 BGII        | 0.07                        | 1.34 | 0.11 | 0.09 | <b>0.40</b> |        |
| NBC 1821 BGII (ZC 1) | 0.10                        | 1.68 | 0.20 | 0.18 | <b>0.54</b> |        |
| VSCH 369 BGII (ZC 2) | 0.03                        | 0.90 | 0.18 | 0.07 | <b>0.29</b> |        |
| VSCH 423 BGII        | 0.17                        | 0.78 | 0.09 | 0.11 | <b>0.29</b> |        |
| C 9341 BG-II         | 0.00                        | 0.34 | 0.22 | 0.13 | <b>0.17</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Advanced H X H trial in South Zone under Protected Conditions – *Helicoverpa armigera*

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |      | Remark |
|----------------------|--------------------------------------------|------|------|------|------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean |        |
| NBCH 639             | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| US 720 BGII          | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 248 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| ECH 189 BGII         | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9261 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9252 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Core 104 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| GBCH 1718 BGII       | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9234 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 423 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| C 9341 BG-II         | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H trial in South Zone under Protected Conditions – Spotted/  
Spiny Bollworms

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |      | Remark |
|----------------------|----------------------------------|------|------|------|------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean |        |
| NBCH 639             | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| US 720 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 248 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| ECH 189 BGII         | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9261 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9252 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Core 104 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| GBCH 1718 BGII       | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9234 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 423 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| C 9341 BG-II         | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Protected Conditions –  
*Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 0.07                                    | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| US 720 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| VSCH 248 BGII        | 0.03                                    | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| ECH 189 BGII         | 0.13                                    | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| KCH 9261 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH 9252 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Core 104 BGII        | 0.10                                    | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 0.03                                    | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| KCH 9234 BGII        | 0.13                                    | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 0.07                                    | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| VSCH 423 BGII        | 0.03                                    | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| C 9341 BG-II         | 0.10                                    | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced H X H trial in South Zone under Protected Conditions –Pink  
Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 0.83                                                    | 0.25 | 0.11 | 1.89 | <b>0.77</b> | <b>BETL</b> |
| US 720 BGII          | 0.67                                                    | 0.25 | 0.11 | 1.33 | <b>0.59</b> | <b>BETL</b> |
| VSCH 248 BGII        | 0.33                                                    | 0.08 | 0.00 | 2.00 | <b>0.60</b> | <b>BETL</b> |
| ECH 189 BGII         | 1.00                                                    | 0.25 | 0.11 | 1.89 | <b>0.81</b> | <b>BETL</b> |
| KCH 9261 BGII        | 0.83                                                    | 0.25 | 0.00 | 1.33 | <b>0.60</b> | <b>BETL</b> |
| KCH 9252 BGII        | 1.17                                                    | 0.25 | 0.22 | 1.11 | <b>0.69</b> | <b>BETL</b> |
| Core 104 BGII        | 0.50                                                    | 0.17 | 0.00 | 1.78 | <b>0.61</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 0.83                                                    | 0.25 | 0.00 | 1.67 | <b>0.69</b> | <b>BETL</b> |
| KCH 9234 BGII        | 1.00                                                    | 0.25 | 0.11 | 1.56 | <b>0.73</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.83                                                    | 0.17 | 0.89 | 1.00 | <b>0.72</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 0.67                                                    | 0.17 | 0.44 | 1.22 | <b>0.63</b> | <b>BETL</b> |
| VSCH 423 BGII        | 0.83                                                    | 0.09 | 0.22 | 2.11 | <b>0.81</b> | <b>BETL</b> |
| C 9341 BG-II         | 0.83                                                    | 0.25 | 0.22 | 1.11 | <b>0.60</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| US 720 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| VSCH 248 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ECH 189 BGII         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH 9261 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH 9252 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Core 104 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| KCH 9234 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| VSCH 423 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| C 9341 BG-II         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage due to (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |             | Remark      |
|----------------------|-------------------------------------------------------|------|-------|-------|-------------|-------------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean        |             |
| NBCH 639             | 10.00                                                 | 2.52 | 11.67 | 14.44 | <b>9.66</b> | <b>BETL</b> |
| US 720 BGII          | 6.67                                                  | 2.55 | 6.67  | 10.00 | <b>6.47</b> | <b>BETL</b> |
| VSCH 248 BGII        | 5.00                                                  | 3.39 | 13.33 | 9.33  | <b>7.76</b> | <b>BETL</b> |
| ECH 189 BGII         | 8.33                                                  | 2.55 | 8.33  | 12.22 | <b>7.86</b> | <b>BETL</b> |
| KCH 9261 BGII        | 6.67                                                  | 3.39 | 8.33  | 12.22 | <b>7.65</b> | <b>BETL</b> |
| KCH 9252 BGII        | 8.33                                                  | 2.63 | 6.67  | 10.00 | <b>6.91</b> | <b>BETL</b> |
| Core 104 BGII        | 6.67                                                  | 2.46 | 3.33  | 12.22 | <b>6.17</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 8.33                                                  | 3.39 | 5.00  | 10.00 | <b>6.68</b> | <b>BETL</b> |
| KCH 9234 BGII        | 8.33                                                  | 2.76 | 3.33  | 10.00 | <b>6.11</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 6.67                                                  | 2.97 | 5.00  | 10.00 | <b>6.16</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 6.67                                                  | 2.63 | 8.33  | 7.78  | <b>6.35</b> | <b>BETL</b> |
| VSCH 423 BGII        | 8.33                                                  | 3.46 | 6.67  | 12.22 | <b>7.67</b> | <b>BETL</b> |
| C 9341 BG-II         | 6.67                                                  | 2.63 | 5.00  | 7.78  | <b>5.52</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**





**Table: Advanced H X H trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |      |      |       |              | Remark |
|----------------------|----------------------|------|------|-------|--------------|--------|
|                      | GU                   | RA   | CBE  | WR    | Mean         |        |
| NBCH 639             | 10.10                | 4.14 | 6.36 | 15.00 | <b>8.90</b>  |        |
| US 720 BGII          | 9.55                 | 4.19 | 5.33 | 23.33 | <b>10.60</b> |        |
| VSCH 248 BGII        | 8.61                 | 4.12 | 3.52 | 15.00 | <b>7.81</b>  |        |
| ECH 189 BGII         | 7.89                 | 4.19 | 6.09 | 21.67 | <b>9.96</b>  |        |
| KCH 9261 BGII        | 9.54                 | 3.95 | 4.30 | 23.33 | <b>10.28</b> |        |
| KCH 9252 BGII        | 7.96                 | 4.36 | 2.87 | 18.33 | <b>8.38</b>  |        |
| Core 104 BGII        | 11.25                | 4.02 | 2.09 | 25.00 | <b>10.59</b> |        |
| GBCH 1718 BGII       | 8.51                 | 4.69 | 4.21 | 26.67 | <b>11.02</b> |        |
| KCH 9234 BGII        | 9.26                 | 4.62 | 3.14 | 21.67 | <b>9.67</b>  |        |
| NBC 1821 BGII (ZC 1) | 8.93                 | 3.95 | 3.34 | 13.33 | <b>7.39</b>  |        |
| VSCH 369 BGII (ZC 2) | 8.17                 | 4.36 | 1.99 | 30.00 | <b>11.13</b> |        |
| VSCH 423 BGII        | 9.00                 | 4.68 | 4.59 | 20.00 | <b>9.57</b>  |        |
| C 9341 BG-II         | 7.78                 | 4.36 | 3.79 | 26.67 | <b>10.65</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced H X H trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |      |       |             | Remark |
|----------------------|-------------------|------|------|-------|-------------|--------|
|                      | GU                | RA   | CBE  | WR    | Mean        |        |
| NBCH 639             | 6.24              | 3.09 | 1.37 | 9.05  | <b>4.94</b> |        |
| US 720 BGII          | 4.55              | 3.14 | 1.38 | 6.43  | <b>3.88</b> |        |
| VSCH 248 BGII        | 4.21              | 3.07 | 0.88 | 9.05  | <b>4.30</b> |        |
| ECH 189 BGII         | 2.48              | 3.14 | 1.52 | 8.06  | <b>3.80</b> |        |
| KCH 9261 BGII        | 4.00              | 2.90 | 1.07 | 6.85  | <b>3.71</b> |        |
| KCH 9252 BGII        | 2.17              | 3.31 | 0.82 | 9.05  | <b>3.84</b> |        |
| Core 104 BGII        | 6.28              | 2.97 | 0.52 | 9.71  | <b>4.87</b> |        |
| GBCH 1718 BGII       | 2.96              | 3.64 | 1.14 | 7.54  | <b>3.82</b> |        |
| KCH 9234 BGII        | 4.03              | 3.57 | 0.83 | 8.76  | <b>4.30</b> |        |
| NBC 1821 BGII (ZC 1) | 4.56              | 2.90 | 0.83 | 9.63  | <b>4.48</b> |        |
| VSCH 369 BGII (ZC 2) | 3.92              | 3.31 | 0.76 | 11.61 | <b>4.90</b> |        |
| VSCH 423 BGII        | 6.21              | 3.63 | 1.22 | 10.96 | <b>5.50</b> |        |
| C 9341 BG-II         | 5.01              | 3.31 | 1.00 | 9.24  | <b>4.64</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Advanced H X H trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect-pests |      |      |      |             | Remark |
|----------------------|-----------------------------------|------|------|------|-------------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |        |
| NBCH 639             | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| US 720 BGII          | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| VSCH 248 BGII        | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| ECH 189 BGII         | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH 9261 BGII        | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH 9252 BGII        | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Core 104 BGII        | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| GBCH 1718 BGII       | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH 9234 BGII        | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| NBC 1821 BGII (ZC 1) | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| VSCH 369 BGII (ZC 2) | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| VSCH 423 BGII        | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| C 9341 BG-II         | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |

**\*GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



## Reaction to Diseases

**Table 2 (a) Advanced Evaluation Trial-I of Intra-hirsutum Hybrids – Irrigated (AET-I Hybrids IRR under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |                    |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|--------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                               |    |      |    |      |    | CICR RS Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                      |    | GM   |    | Rust |    | ALS                |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI                | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 8      | 55041   | NBCH 639             | 37.2                                                      | MR | 27.3 | MR | 26.3 | MR | 5.0                | R  | 0.0      | DF | 0.7 | R  | 0.0 | DF | 5.3  | R  |
| 2      | 55042   | US 720 BGII          | 27.5                                                      | MR | 16.5 | R  | 28.8 | MR | 5.3                | R  | 0.0      | DF | 0.8 | R  | 0.8 | R  | 7.5  | R  |
| 11     | 55043   | VSCH 248 BGII        | 30.8                                                      | MR | 9.8  | R  | 12.8 | R  | 6.5                | R  | 0.0      | DF | 0.7 | R  | 0.0 | DF | 7.3  | R  |
| 5      | 55044   | ECH 189 BGII         | 28.5                                                      | MR | 31.3 | MR | 23.5 | R  | 6.0                | R  | 0.0      | DF | 1.3 | R  | 0.4 | R  | 7.8  | R  |
| 13     | 55045   | KCH 9261 BGII        | 27.8                                                      | MR | 13.8 | R  | 14.2 | R  | 6.7                | R  | 0.0      | DF | 1.8 | R  | 0.7 | R  | 8.3  | R  |
| 4      | 55046   | KCH 9252 BGII        | 21.5                                                      | R  | 28.5 | MR | 28.0 | MR | 6.2                | R  | 0.0      | DF | 1.3 | R  | 0.9 | R  | 6.0  | R  |
| 1      | 55047   | Core 104 BGII        | 27.2                                                      | MR | 29.8 | MR | 26.8 | MR | 7.5                | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 7.5  | R  |
| 6      | 55048   | GBCH 1718 BGII       | 27.0                                                      | MR | 32.3 | MR | 30.3 | MR | 5.0                | R  | 0.0      | DF | 0.0 | DF | 2.4 | R  | 7.8  | R  |
| 10     | 55049   | KCH 9234 BGII        | 10.3                                                      | R  | 30.1 | MR | 27.3 | MR | 6.0                | R  | 0.0      | DF | 0.8 | R  | 0.0 | DF | 7.0  | R  |
| 7      | 55050   | NBC 1821 BGII (ZC 1) | 26.5                                                      | MR | 9.8  | R  | 25.8 | MR | 5.5                | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 7.8  | R  |
| 3      | 55051   | VSCH 369 BGII (ZC 2) | 27.2                                                      | MR | 26.3 | MR | 26.8 | MR | 7.0                | R  | 0.0      | DF | 0.8 | R  | 0.0 | DF | 8.8  | R  |
| 9      | 55052   | VSCH 423 BGII        | 20.3                                                      | R  | 27.8 | MR | 27.3 | MR | 5.8                | R  | 0.0      | DF | 1.7 | R  | 0.5 | R  | 6.8  | R  |
| 12     | 55053   | C 9341 BG-II         | 27.0                                                      | MR | 28.0 | MR | 25.8 | MR | 5.3                | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.5  | R  |

Table 2 (b) Advanced Evaluation Trial-I of Intra-hirsutum Hybrids – Irrigated (AET-I Hybrids IRR) under protected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|
|        |         |                      | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    |
|        |         |                      | ALS                                                       |    | CoLS |    | GM   |    | Rust |    | TSV |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 8      | 55041   | NBCH 639             | 2.7                                                       | R  | 3.5  | R  | 12.0 | R  | 26.5 | MR | 3.8 | R  |
| 2      | 55042   | US 720 BGII          | 2.5                                                       | R  | 3.3  | R  | 12.3 | R  | 27.5 | MR | 1.0 | R  |
| 11     | 55043   | VSCH 248 BGII        | 1.7                                                       | R  | 2.8  | R  | 11.7 | R  | 28.5 | MR | 2.1 | R  |
| 5      | 55044   | ECH 189 BGII         | 2.3                                                       | R  | 3.0  | R  | 11.3 | R  | 27.5 | MR | 1.7 | R  |
| 13     | 55045   | KCH 9261 BGII        | 2.3                                                       | R  | 3.3  | R  | 13.2 | R  | 27.5 | MR | 1.7 | R  |
| 4      | 55046   | KCH 9252 BGII        | 2.0                                                       | R  | 3.0  | R  | 12.7 | R  | 28.0 | MR | 0.0 | DF |
| 1      | 55047   | Core 104 BGII        | 2.5                                                       | R  | 3.8  | R  | 12.5 | R  | 26.8 | MR | 1.7 | R  |
| 6      | 55048   | GBCH 1718 BGII       | 2.7                                                       | R  | 3.7  | R  | 13.2 | R  | 27.5 | MR | 1.3 | R  |
| 10     | 55049   | KCH 9234 BGII        | 2.7                                                       | R  | 3.5  | R  | 12.2 | R  | 27.5 | MR | 0.0 | DF |
| 7      | 55050   | NBC 1821 BGII (ZC 1) | 2.7                                                       | R  | 3.2  | R  | 12.0 | R  | 27.8 | MR | 2.4 | R  |
| 3      | 55051   | VSCH 369 BGII (ZC 2) | 3.2                                                       | R  | 4.7  | R  | 12.3 | R  | 27.8 | MR | 2.3 | R  |
| 9      | 55052   | VSCH 423 BGII        | 2.5                                                       | R  | 4.2  | R  | 11.0 | R  | 27.3 | MR | 1.9 | R  |
| 12     | 55053   | C 9341 BG-II         | 2.2                                                       | R  | 3.3  | R  | 12.8 | R  | 27.8 | MR | 0.4 | R  |

## Evaluation under Unprotected Condition for Insect pests

### Reaction to Insect Pest

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |       |       |             | Remark      |
|----------------------|-----------------------------------|------|-------|-------|-------------|-------------|
|                      | GU                                | RA   | CBE   | WR    | Mean        |             |
| NBCH 639             | 5.30                              | 3.38 | 9.13  | 8.40  | <b>6.55</b> | <b>BETL</b> |
| US 720 BGII          | 6.30                              | 2.27 | 11.96 | 9.73  | <b>7.56</b> | <b>BETL</b> |
| VSCH 248 BGII        | 5.73                              | 4.51 | 8.78  | 8.53  | <b>6.89</b> | <b>BETL</b> |
| ECH 189 BGII         | 3.40                              | 3.05 | 13.58 | 10.80 | <b>7.71</b> | <b>BETL</b> |
| KCH 9261 BGII        | 7.87                              | 1.24 | 9.38  | 9.53  | <b>7.00</b> | <b>BETL</b> |
| KCH 9252 BGII        | 5.37                              | 2.27 | 7.27  | 10.13 | <b>6.26</b> | <b>BETL</b> |
| Core 104 BGII        | 8.13                              | 2.17 | 10.04 | 11.47 | <b>7.95</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 4.30                              | 3.62 | 11.40 | 9.47  | <b>7.20</b> | <b>BETL</b> |
| KCH 9234 BGII        | 5.03                              | 2.75 | 9.53  | 10.80 | <b>7.03</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 6.33                              | 2.50 | 8.00  | 8.60  | <b>6.36</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 5.80                              | 2.72 | 9.51  | 7.73  | <b>6.44</b> | <b>BETL</b> |
| VSCH 423 BGII        | 7.17                              | 2.11 | 8.69  | 7.47  | <b>6.36</b> | <b>BETL</b> |
| C 9341 BG-II         | 4.83                              | 2.07 | 11.29 | 8.20  | <b>6.60</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced H X H trial in South Zone under Unprotected Conditions –Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 9.60                                   | 2.61 | 1.93 | 4.80 | <b>4.74</b> | <b>BETL</b> |
| US 720 BGII          | 8.27                                   | 6.54 | 2.07 | 4.73 | <b>5.40</b> | <b>BETL</b> |
| VSCH 248 BGII        | 11.60                                  | 3.49 | 1.73 | 3.87 | <b>5.17</b> | <b>BETL</b> |
| ECH 189 BGII         | 10.83                                  | 4.18 | 2.00 | 4.53 | <b>5.39</b> | <b>BETL</b> |
| KCH 9261 BGII        | 9.97                                   | 4.24 | 1.53 | 4.27 | <b>5.00</b> | <b>BETL</b> |
| KCH 9252 BGII        | 8.43                                   | 4.94 | 2.00 | 3.60 | <b>4.74</b> | <b>BETL</b> |
| Core 104 BGII        | 9.43                                   | 3.52 | 1.60 | 4.60 | <b>4.79</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 8.80                                   | 3.45 | 2.07 | 4.47 | <b>4.70</b> | <b>BETL</b> |
| KCH 9234 BGII        | 8.50                                   | 3.95 | 1.93 | 5.27 | <b>4.91</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 9.87                                   | 7.78 | 1.13 | 4.53 | <b>5.83</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 9.47                                   | 3.66 | 2.00 | 4.47 | <b>4.90</b> | <b>BETL</b> |
| VSCH 423 BGII        | 10.13                                  | 2.47 | 0.93 | 5.00 | <b>4.63</b> | <b>BETL</b> |
| C 9341 BG-II         | 8.07                                   | 3.44 | 1.93 | 4.07 | <b>4.38</b> | <b>BETL</b> |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |     |      | Remark |
|----------------------|-----------|----|-----|-----|------|--------|
|                      | GU        | RA | CBE | WR  | Mean |        |
| NBCH 639             | III       | I  | I   | III | II   |        |
| US 720 BGII          | III       | I  | I   | II  | II   |        |
| VSCH 248 BGII        | IV        | I  | I   | II  | II   |        |
| ECH 189 BGII         | IV        | II | I   | III | III  |        |
| KCH 9261 BGII        | III       | II | I   | II  | II   |        |
| KCH 9252 BGII        | II        | II | I   | II  | II   |        |
| Core 104 BGII        | III       | II | I   | II  | II   |        |
| GBCH 1718 BGII       | III       | II | I   | II  | II   |        |
| KCH 9234 BGII        | II        | II | I   | II  | II   |        |
| NBC 1821 BGII (ZC 1) | III       | II | I   | III | II   |        |
| VSCH 369 BGII (ZC 2) | III       | II | I   | II  | II   |        |
| VSCH 423 BGII        | III       | II | I   | II  | II   |        |
| C 9341 BG-II         | III       | II | I   | II  | II   |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark      |
|----------------------|------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |             |
| NBCH 639             | 8.10                               | 4.13 | 2.80 | 17.00 | <b>8.01</b> | <b>BETL</b> |
| US 720 BGII          | 7.10                               | 4.47 | 2.27 | 13.00 | <b>6.71</b> | <b>BETL</b> |
| VSCH 248 BGII        | 6.47                               | 7.08 | 2.27 | 15.87 | <b>7.92</b> | <b>BETL</b> |
| ECH 189 BGII         | 5.40                               | 5.08 | 2.18 | 15.60 | <b>7.07</b> | <b>BETL</b> |
| KCH 9261 BGII        | 7.80                               | 6.12 | 2.18 | 12.27 | <b>7.09</b> | <b>BETL</b> |
| KCH 9252 BGII        | 8.03                               | 4.90 | 2.36 | 12.53 | <b>6.96</b> | <b>BETL</b> |
| Core 104 BGII        | 8.83                               | 7.42 | 2.24 | 12.07 | <b>7.64</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 7.73                               | 4.84 | 1.78 | 10.73 | <b>6.27</b> | <b>BETL</b> |
| KCH 9234 BGII        | 5.90                               | 6.43 | 2.78 | 13.93 | <b>7.26</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 9.07                               | 6.42 | 1.64 | 11.67 | <b>7.20</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 8.13                               | 6.82 | 1.80 | 13.73 | <b>7.62</b> | <b>BETL</b> |
| VSCH 423 BGII        | 7.13                               | 6.20 | 2.44 | 12.93 | <b>7.18</b> | <b>BETL</b> |
| C 9341 BG-II         | 7.83                               | 6.26 | 2.51 | 12.47 | <b>7.27</b> | <b>BETL</b> |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 0.33                                 | 2.43 | 2.33 | 0.47 | <b>1.39</b> | <b>BETL</b> |
| US 720 BGII          | 1.47                                 | 0.68 | 0.73 | 0.87 | <b>0.94</b> | <b>BETL</b> |
| VSCH 248 BGII        | 1.13                                 | 1.57 | 1.40 | 0.47 | <b>1.14</b> | <b>BETL</b> |
| ECH 189 BGII         | 0.47                                 | 1.44 | 1.27 | 0.93 | <b>1.03</b> | <b>BETL</b> |
| KCH 9261 BGII        | 1.50                                 | 1.44 | 2.20 | 0.80 | <b>1.48</b> | <b>BETL</b> |
| KCH 9252 BGII        | 0.60                                 | 0.59 | 2.07 | 0.67 | <b>0.98</b> | <b>BETL</b> |
| Core 104 BGII        | 0.53                                 | 1.36 | 0.60 | 1.20 | <b>0.92</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 1.30                                 | 1.90 | 1.00 | 0.80 | <b>1.25</b> | <b>BETL</b> |
| KCH 9234 BGII        | 0.20                                 | 2.59 | 2.80 | 1.20 | <b>1.70</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 1.83                                 | 0.93 | 2.07 | 0.87 | <b>1.42</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 1.23                                 | 0.47 | 2.20 | 1.00 | <b>1.23</b> | <b>BETL</b> |
| VSCH 423 BGII        | 1.30                                 | 1.41 | 0.67 | 0.80 | <b>1.04</b> | <b>BETL</b> |
| C 9341 BG-II         | 0.33                                 | 1.78 | 1.40 | 0.53 | <b>1.01</b> | <b>BETL</b> |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| NBCH 639             | 0.50                        | 1.01 | 0.00 | 0.27 | <b>0.44</b> |        |
| US 720 BGII          | 0.27                        | 0.79 | 0.07 | 0.20 | <b>0.33</b> |        |
| VSCH 248 BGII        | 0.03                        | 1.00 | 0.20 | 0.20 | <b>0.36</b> |        |
| ECH 189 BGII         | 0.17                        | 2.56 | 0.00 | 0.13 | <b>0.71</b> |        |
| KCH 9261 BGII        | 0.20                        | 0.23 | 0.00 | 0.33 | <b>0.19</b> |        |
| KCH 9252 BGII        | 0.43                        | 1.00 | 0.07 | 0.27 | <b>0.44</b> |        |
| Core 104 BGII        | 0.23                        | 1.88 | 0.07 | 0.13 | <b>0.58</b> |        |
| GBCH 1718 BGII       | 0.13                        | 0.95 | 0.13 | 0.13 | <b>0.34</b> |        |
| KCH 9234 BGII        | 0.17                        | 1.01 | 0.07 | 0.13 | <b>0.34</b> |        |
| NBC 1821 BGII (ZC 1) | 0.30                        | 0.67 | 0.07 | 0.20 | <b>0.31</b> |        |
| VSCH 369 BGII (ZC 2) | 0.17                        | 0.67 | 0.07 | 0.07 | <b>0.24</b> |        |
| VSCH 423 BGII        | 0.33                        | 0.68 | 0.07 | 0.00 | <b>0.27</b> |        |
| C 9341 BG-II         | 0.07                        | 0.44 | 0.07 | 0.20 | <b>0.19</b> |        |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| NBCH 639             | 0.00                                       | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| US 720 BGII          | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| VSCH 248 BGII        | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| ECH 189 BGII         | 0.00                                       | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| KCH 9261 BGII        | 0.00                                       | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| KCH 9252 BGII        | 0.00                                       | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| Core 104 BGII        | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| GBCH 1718 BGII       | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| KCH 9234 BGII        | 0.00                                       | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| VSCH 423 BGII        | 0.00                                       | 0.44 | 0.00 | 0.00 | <b>0.11</b> | BETL   |
| C 9341 BG-II         | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Spotted/  
Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|----------------------|----------------------------------|------|------|------|-------------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean        |        |
| NBCH 639             | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 720 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 248 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ECH 189 BGII         | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9261 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9252 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 104 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| GBCH 1718 BGII       | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9234 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 423 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C 9341 BG-II         | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| NBCH 639             | 0.23                                    | 1.00 | 0.00 | 0.00 | <b>0.31</b> | <b>BETL</b> |
| US 720 BGII          | 0.67                                    | 0.22 | 0.00 | 0.00 | <b>0.22</b> | <b>BETL</b> |
| VSCH 248 BGII        | 0.83                                    | 0.78 | 0.00 | 0.00 | <b>0.40</b> | <b>BETL</b> |
| ECH 189 BGII         | 0.00                                    | 0.67 | 0.00 | 0.00 | <b>0.17</b> | <b>BETL</b> |
| KCH 9261 BGII        | 0.50                                    | 1.22 | 0.00 | 0.00 | <b>0.43</b> | <b>BETL</b> |
| KCH 9252 BGII        | 0.53                                    | 0.78 | 0.00 | 0.00 | <b>0.33</b> | <b>BETL</b> |
| Core 104 BGII        | 0.60                                    | 1.22 | 0.00 | 0.00 | <b>0.46</b> | <b>BETL</b> |
| GBCH 1718 BGII       | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | <b>BETL</b> |
| KCH 9234 BGII        | 0.37                                    | 1.44 | 0.00 | 0.00 | <b>0.45</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.03                                    | 0.78 | 0.00 | 0.00 | <b>0.20</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.78 | 0.00 | 0.00 | <b>0.19</b> | <b>BETL</b> |
| VSCH 423 BGII        | 0.73                                    | 0.67 | 0.00 | 0.00 | <b>0.35</b> | <b>BETL</b> |
| C 9341 BG-II         | 0.53                                    | 1.11 | 0.00 | 0.00 | <b>0.41</b> | <b>BETL</b> |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |       |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR    | Mean        |             |
| NBCH 639             | 4.83                                                    | 3.18 | 0.33 | 7.33  | <b>3.92</b> | <b>AETL</b> |
| US 720 BGII          | 3.50                                                    | 3.06 | 0.67 | 9.00  | <b>4.06</b> | <b>AETL</b> |
| VSCH 248 BGII        | 5.00                                                    | 2.06 | 0.00 | 7.67  | <b>3.68</b> | <b>AETL</b> |
| ECH 189 BGII         | 4.00                                                    | 2.73 | 0.33 | 11.00 | <b>4.52</b> | <b>AETL</b> |
| KCH 9261 BGII        | 3.33                                                    | 2.62 | 0.00 | 10.00 | <b>3.99</b> | <b>AETL</b> |
| KCH 9252 BGII        | 3.17                                                    | 3.29 | 0.33 | 10.67 | <b>4.36</b> | <b>AETL</b> |
| Core 104 BGII        | 4.83                                                    | 2.51 | 0.33 | 13.67 | <b>5.34</b> | <b>AETL</b> |
| GBCH 1718 BGII       | 5.50                                                    | 2.42 | 0.33 | 8.67  | <b>4.23</b> | <b>AETL</b> |
| KCH 9234 BGII        | 5.33                                                    | 2.17 | 0.33 | 8.33  | <b>4.04</b> | <b>AETL</b> |
| NBC 1821 BGII (ZC 1) | 4.00                                                    | 2.35 | 1.33 | 10.33 | <b>4.51</b> | <b>AETL</b> |
| VSCH 369 BGII (ZC 2) | 5.00                                                    | 2.18 | 2.00 | 10.33 | <b>4.88</b> | <b>AETL</b> |
| VSCH 423 BGII        | 4.67                                                    | 2.84 | 1.67 | 7.67  | <b>4.21</b> | <b>AETL</b> |
| C 9341 BG-II         | 3.50                                                    | 2.29 | 0.67 | 10.33 | <b>4.20</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| NBCH 639             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 720 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 248 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ECH 189 BGII         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9261 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9252 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 104 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| GBCH 1718 BGII       | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9234 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 423 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C 9341 BG-II         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll Damage due to (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|--------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |        |
| NBCH 639             | 46.67                                                 | 4.95 | 10.00 | 46.67 | <b>27.07</b> | AETL   |
| US 720 BGII          | 30.00                                                 | 6.44 | 30.00 | 53.33 | <b>29.94</b> | AETL   |
| VSCH 248 BGII        | 41.67                                                 | 4.36 | 15.00 | 46.67 | <b>26.92</b> | AETL   |
| ECH 189 BGII         | 36.67                                                 | 4.00 | 10.00 | 60.00 | <b>27.67</b> | AETL   |
| KCH 9261 BGII        | 26.67                                                 | 4.89 | 10.00 | 53.33 | <b>23.72</b> | AETL   |
| KCH 9252 BGII        | 23.33                                                 | 5.48 | 10.00 | 60.00 | <b>24.70</b> | AETL   |
| Core 104 BGII        | 40.00                                                 | 5.17 | 5.00  | 66.67 | <b>29.21</b> | AETL   |
| GBCH 1718 BGII       | 48.33                                                 | 5.98 | 5.00  | 53.33 | <b>28.16</b> | AETL   |
| KCH 9234 BGII        | 38.33                                                 | 4.55 | 15.00 | 46.67 | <b>26.14</b> | AETL   |
| NBC 1821 BGII (ZC 1) | 31.67                                                 | 4.59 | 20.00 | 53.33 | <b>27.40</b> | AETL   |
| VSCH 369 BGII (ZC 2) | 36.67                                                 | 5.29 | 10.00 | 56.67 | <b>27.16</b> | AETL   |
| VSCH 423 BGII        | 36.67                                                 | 5.64 | 10.00 | 43.33 | <b>23.91</b> | AETL   |
| C 9341 BG-II         | 28.33                                                 | 4.53 | 5.00  | 60.00 | <b>24.47</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | RA    | CBE   | WR    | Mean         |        |
| NBCH 639             | 61.36                | 10.20 | 14.05 | 50.00 | <b>33.90</b> |        |
| US 720 BGII          | 45.24                | 11.97 | 12.93 | 80.00 | <b>37.54</b> |        |
| VSCH 248 BGII        | 36.78                | 10.64 | 19.40 | 65.00 | <b>32.95</b> |        |
| ECH 189 BGII         | 56.92                | 8.95  | 23.15 | 60.00 | <b>37.25</b> |        |
| KCH 9261 BGII        | 45.87                | 10.52 | 16.66 | 50.00 | <b>30.76</b> |        |
| KCH 9252 BGII        | 50.73                | 10.84 | 13.20 | 55.00 | <b>32.44</b> |        |
| Core 104 BGII        | 66.94                | 10.45 | 19.85 | 65.00 | <b>40.56</b> |        |
| GBCH 1718 BGII       | 54.83                | 12.24 | 26.22 | 70.00 | <b>40.82</b> |        |
| KCH 9234 BGII        | 51.37                | 10.28 | 17.06 | 65.00 | <b>35.93</b> |        |
| NBC 1821 BGII (ZC 1) | 48.96                | 10.36 | 23.76 | 45.00 | <b>32.02</b> |        |
| VSCH 369 BGII (ZC 2) | 51.37                | 10.90 | 22.98 | 40.00 | <b>31.31</b> |        |
| VSCH 423 BGII        | 43.14                | 11.91 | 12.59 | 45.00 | <b>28.16</b> |        |
| C 9341 BG-II         | 39.89                | 9.97  | 12.85 | 60.00 | <b>30.68</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |       |       |              | Remark |
|----------------------|-------------------|------|-------|-------|--------------|--------|
|                      | GU                | RA   | CBE   | WR    | Mean         |        |
| NBCH 639             | 33.64             | 7.86 | 5.00  | 21.00 | <b>16.88</b> |        |
| US 720 BGII          | 31.52             | 8.30 | 5.43  | 25.25 | <b>17.63</b> |        |
| VSCH 248 BGII        | 21.97             | 8.20 | 9.86  | 14.22 | <b>13.56</b> |        |
| ECH 189 BGII         | 41.25             | 6.13 | 13.19 | 23.36 | <b>20.98</b> |        |
| KCH 9261 BGII        | 36.74             | 7.31 | 9.14  | 20.57 | <b>18.44</b> |        |
| KCH 9252 BGII        | 33.25             | 8.31 | 5.77  | 16.10 | <b>15.86</b> |        |
| Core 104 BGII        | 30.21             | 7.79 | 8.29  | 18.91 | <b>16.30</b> |        |
| GBCH 1718 BGII       | 23.64             | 9.84 | 20.07 | 22.22 | <b>18.94</b> |        |
| KCH 9234 BGII        | 33.74             | 8.10 | 10.26 | 22.28 | <b>18.59</b> |        |
| NBC 1821 BGII (ZC 1) | 30.95             | 8.79 | 10.30 | 16.10 | <b>16.54</b> |        |
| VSCH 369 BGII (ZC 2) | 41.26             | 8.94 | 11.33 | 13.82 | <b>18.84</b> |        |
| VSCH 423 BGII        | 29.67             | 9.01 | 4.99  | 14.85 | <b>14.63</b> |        |
| C 9341 BG-II         | 19.74             | 6.56 | 5.43  | 20.18 | <b>12.98</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table 2 (c) Advanced Evaluation Trial-I of Intra-hirsutum Hybrids – Irrigated (AET-I Hybrids IRR) under Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                                 |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                        |    | GM   |    | Rust |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 8      | 55041   | NBCH 639             | 42.3                                                        | MR | 28.0 | MR | 30.2 | MR | 6.0                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 4.5  | R  |
| 2      | 55042   | US 720 BGII          | 29.8                                                        | MR | 19.0 | R  | 29.3 | MR | 3.0                 | R  | 0.0      | DF | 0.0 | DF | 2.2 | R  | 0.0  | R  |
| 11     | 55043   | VSCH 248 BGII        | 32.0                                                        | MR | 11.8 | R  | 17.0 | R  | 4.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.5  | R  |
| 5      | 55044   | ECH 189 BGII         | 30.3                                                        | MR | 35.0 | MR | 26.8 | MR | 5.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 5.0  | R  |
| 13     | 55045   | KCH 9261 BGII        | 31.0                                                        | MR | 15.0 | R  | 17.3 | R  | 5.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 5.0  | R  |
| 4      | 55046   | KCH 9252 BGII        | 29.5                                                        | MR | 30.5 | MR | 31.0 | MR | 5.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.0  | R  |
| 1      | 55047   | Core 104 BGII        | 28.3                                                        | MR | 27.8 | MR | 29.5 | MR | 5.0                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.5  | R  |
| 6      | 55048   | GBCH 1718 BGII       | 28.0                                                        | MR | 35.0 | MR | 30.5 | MR | 5.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.0  | R  |
| 10     | 55049   | KCH 9234 BGII        | 13.8                                                        | R  | 31.0 | MR | 28.8 | MR | 4.5                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 4.5  | R  |
| 7      | 55050   | NBC 1821 BGII (ZC 1) | 28.3                                                        | MR | 10.5 | R  | 26.8 | MR | 5.0                 | R  | 0.0      | DF | 3.0 | R  | 2.5 | R  | 6.5  | R  |
| 3      | 55051   | VSCH 369 BGII (ZC 2) | 30.0                                                        | MR | 27.0 | MR | 28.8 | MR | 6.5                 | R  | 0.0      | DF | 3.5 | R  | 0.0 | DF | 8.0  | R  |
| 9      | 55052   | VSCH 423 BGII        | 28.0                                                        | MR | 28.3 | MR | 26.8 | MR | 5.0                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 7.5  | R  |
| 12     | 55053   | C 9341 BG-II         | 28.0                                                        | MR | 29.3 | MR | 26.5 | MR | 6.5                 | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 5.5  | R  |

Table 2 (d) Advanced Evaluation Trial-I of Intra-hirsutum Hybrids – Irrigated (AET-I Hybrids IRR) under unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): unprotected conditions |    |      |    |      |    |      |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|------|----|
|        |         |                      | RARS, Warangal                                              |    |      |    |      |    |      |    |      |    |
|        |         |                      | ALS                                                         |    | CoLS |    | GM   |    | Rust |    | TSV  |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 8      | 55041   | NBCH 639             | 6.0                                                         | R  | 7.0  | R  | 20.0 | R  | 46.5 | MR | 10.0 | R  |
| 2      | 55042   | US 720 BGII          | 7.0                                                         | R  | 8.0  | R  | 30.0 | MR | 39.0 | MR | 12.5 | R  |
| 11     | 55043   | VSCH 248 BGII        | 7.0                                                         | R  | 7.0  | R  | 22.0 | R  | 42.5 | MR | 8.8  | R  |
| 5      | 55044   | ECH 189 BGII         | 7.0                                                         | R  | 7.0  | R  | 31.0 | MR | 30.0 | MR | 17.5 | R  |
| 13     | 55045   | KCH 9261 BGII        | 7.0                                                         | R  | 7.0  | R  | 20.0 | R  | 40.0 | MR | 5.0  | R  |
| 4      | 55046   | KCH 9252 BGII        | 6.5                                                         | R  | 6.0  | R  | 16.5 | R  | 41.0 | MR | 6.3  | R  |
| 1      | 55047   | Core 104 BGII        | 7.0                                                         | R  | 7.0  | R  | 22.5 | R  | 38.5 | MR | 8.8  | R  |
| 6      | 55048   | GBCH 1718 BGII       | 7.5                                                         | R  | 11.5 | R  | 20.0 | R  | 46.0 | MR | 11.3 | R  |
| 10     | 55049   | KCH 9234 BGII        | 7.0                                                         | R  | 7.0  | R  | 19.0 | R  | 50.0 | MR | 6.3  | R  |
| 7      | 55050   | NBC 1821 BGII (ZC 1) | 6.5                                                         | R  | 10.0 | R  | 20.5 | R  | 51.0 | MS | 13.8 | R  |
| 3      | 55051   | VSCH 369 BGII (ZC 2) | 5.0                                                         | R  | 8.0  | R  | 24.5 | R  | 43.5 | MR | 22.5 | R  |
| 9      | 55052   | VSCH 423 BGII        | 10.5                                                        | R  | 18.5 | R  | 25.5 | MR | 48.5 | MR | 8.8  | R  |
| 12     | 55053   | C 9341 BG-II         | 4.5                                                         | R  | 9.0  | R  | 24.5 | R  | 41.0 | MR | 8.8  | R  |

Table 2 (e) Advanced Evaluation Trial-I of Intra-hirsutum Hybrids – Irrigated (AET-I Hybrids IRR) under Protected and Unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR):Protected conditions |    |      |    |     |    |     |    | Average PDI & Disease Reaction: Unprotected conditions |    |      |    |     |    |      |    |
|--------|---------|----------------------|----------------------------------------------------------|----|------|----|-----|----|-----|----|--------------------------------------------------------|----|------|----|-----|----|------|----|
|        |         |                      | Kaveri, Hyderabad                                        |    |      |    |     |    |     |    | Kaveri, Hyderabad                                      |    |      |    |     |    |      |    |
|        |         |                      | GM                                                       |    | ALS  |    | TSV |    | BLB |    | GM                                                     |    | ALS  |    | TSV |    | BLB  |    |
|        |         |                      | PDI                                                      | DR | PDI  | DR | PDI | DR | PDI | DR | PDI                                                    | DR | PDI  | DR | PDI | DR | PDI  | DR |
| 8      | 55041   | NBCH 639             | 7.9                                                      | R  | 9.3  | R  | 2.2 | R  | 6.8 | R  | 12.1                                                   | R  | 13.3 | R  | 6.2 | R  | 9.7  | R  |
| 2      | 55042   | US 720 BGII          | 7.6                                                      | R  | 6.8  | R  | 2.4 | R  | 4.8 | R  | 13.8                                                   | R  | 13.5 | R  | 4.0 | R  | 8.8  | R  |
| 11     | 55043   | VSCH 248 BGII        | 7.1                                                      | R  | 9.2  | R  | 3.0 | R  | 5.5 | R  | 12.0                                                   | R  | 14.5 | R  | 5.2 | R  | 8.9  | R  |
| 5      | 55044   | ECH 189 BGII         | 10.1                                                     | R  | 10.6 | R  | 1.1 | R  | 5.2 | R  | 15.8                                                   | R  | 18.8 | R  | 2.8 | R  | 7.0  | R  |
| 13     | 55045   | KCH 9261 BGII        | 4.6                                                      | R  | 5.5  | R  | 0.9 | R  | 3.6 | R  | 10.5                                                   | R  | 9.3  | R  | 2.8 | R  | 6.8  | R  |
| 4      | 55046   | KCH 9252 BGII        | 4.6                                                      | R  | 4.9  | R  | 0.9 | R  | 2.9 | R  | 9.8                                                    | R  | 9.0  | R  | 2.5 | R  | 6.3  | R  |
| 1      | 55047   | Core 104 BGII        | 5.3                                                      | R  | 8.0  | R  | 2.9 | R  | 4.6 | R  | 11.3                                                   | R  | 13.5 | R  | 4.7 | R  | 8.8  | R  |
| 6      | 55048   | GBCH 1718 BGII       | 11.6                                                     | R  | 4.9  | R  | 2.7 | R  | 5.1 | R  | 18.3                                                   | R  | 9.5  | R  | 4.2 | R  | 8.4  | R  |
| 10     | 55049   | KCH 9234 BGII        | 4.3                                                      | R  | 3.3  | R  | 0.8 | R  | 3.2 | R  | 10.0                                                   | R  | 9.8  | R  | 2.4 | R  | 7.0  | R  |
| 7      | 55050   | NBC 1821 BGII (ZC 1) | 7.4                                                      | R  | 8.9  | R  | 3.1 | R  | 5.7 | R  | 13.8                                                   | R  | 14.9 | R  | 4.2 | R  | 10.0 | R  |
| 3      | 55051   | VSCH 369 BGII (ZC 2) | 4.5                                                      | R  | 10.3 | R  | 2.2 | R  | 3.6 | R  | 9.8                                                    | R  | 16.9 | R  | 3.8 | R  | 7.7  | R  |
| 9      | 55052   | VSCH 423 BGII        | 6.1                                                      | R  | 6.3  | R  | 3.4 | R  | 5.2 | R  | 11.8                                                   | R  | 11.6 | R  | 6.2 | R  | 9.3  | R  |
| 12     | 55053   | C 9341 BG-II         | 5.9                                                      | R  | 5.4  | R  | 2.2 | R  | 6.8 | R  | 11.8                                                   | R  | 15.1 | R  | 4.4 | R  | 10.2 | R  |

Table 2 (f) Advanced Evaluation Trial-I of Intra-hirsutum Hybrids – Irrigated (AET-I Hybrids IRR) under Protected and Unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR):Protected conditions |    |      |    |      |    | Average PDI & Disease Reaction: Unprotected conditions |    |      |    |      |    |
|--------|---------|----------------------|----------------------------------------------------------|----|------|----|------|----|--------------------------------------------------------|----|------|----|------|----|
|        |         |                      | Eldorado Agritech Ltd. Karimnagar                        |    |      |    |      |    | Eldorado Agritech Ltd. Karimnagar                      |    |      |    |      |    |
|        |         |                      | ALS                                                      |    | GM   |    | TSV  |    | ALS                                                    |    | GM   |    | TSV  |    |
|        |         |                      | PDI                                                      | DR | PDI  | DR | PDI  | DR | PDI                                                    | DR | PDI  | DR | PDI  | DR |
| 8      | 55041   | NBCH 639             | 20.2                                                     | R  | 19.8 | R  | 2.00 | R  | 30.0                                                   | MR | 32.5 | MR | 7.5  | R  |
| 2      | 55042   | US 720 BGII          | 7.0                                                      | R  | 6.0  | R  | 0.00 | R  | 12.5                                                   | R  | 12.0 | R  | 0.0  | DF |
| 11     | 55043   | VSCH 248 BGII        | 17.7                                                     | R  | 16.3 | R  | 3.00 | R  | 25.5                                                   | MR | 26.5 | MR | 5.0  | R  |
| 5      | 55044   | ECH 189 BGII         | 10.5                                                     | R  | 7.7  | R  | 0.00 | R  | 14.5                                                   | R  | 14.5 | R  | 0.0  | DF |
| 13     | 55045   | KCH 9261 BGII        | 9.2                                                      | R  | 8.2  | R  | 0.00 | R  | 13.0                                                   | R  | 12.5 | R  | 0.0  | DF |
| 4      | 55046   | KCH 9252 BGII        | 9.3                                                      | R  | 15.7 | R  | 3.00 | R  | 17.0                                                   | R  | 21.0 | R  | 9.5  | R  |
| 1      | 55047   | Core 104 BGII        | 8.7                                                      | R  | 7.0  | R  | 2.00 | R  | 11.0                                                   | R  | 15.5 | R  | 7.0  | R  |
| 6      | 55048   | GBCH 1718 BGII       | 18.2                                                     | R  | 14.6 | R  | 3.00 | R  | 29.5                                                   | MR | 20.2 | R  | 10.5 | R  |
| 10     | 55049   | KCH 9234 BGII        | 9.5                                                      | R  | 14.2 | R  | 0.00 | R  | 18.5                                                   | R  | 23.0 | R  | 3.5  | R  |
| 7      | 55050   | NBC 1821 BGII (ZC 1) | 14.8                                                     | R  | 17.3 | R  | 4.00 | R  | 25.0                                                   | R  | 30.5 | MR | 12.5 | R  |
| 3      | 55051   | VSCH 369 BGII (ZC 2) | 21.2                                                     | R  | 10.3 | R  | 2.2  | R  | 9.8                                                    | R  | 16.9 | R  | 3.8  | R  |
| 9      | 55052   | VSCH 423 BGII        | 19.3                                                     | R  | 6.3  | R  | 3.4  | R  | 11.8                                                   | R  | 11.6 | R  | 6.2  | R  |
| 12     | 55053   | C 9341 BG-II         | 15.8                                                     | R  | 5.4  | R  | 2.2  | R  | 11.8                                                   | R  | 15.1 | R  | 4.4  | R  |

## Advanced Evaluation Trial of Intra-Hirsutum Bt Hybrids (II) - Irrigated

### *Constitution of Trial*

The trial was constituted with 15 Bt cotton hybrids containing deregulated events along with two different check hybrids as furnished below.

| S. No. | Code-I    | Code -II     | Entries                     | Sponsored by                     |
|--------|-----------|--------------|-----------------------------|----------------------------------|
| 1      | 9         | 55061        | KCH 9221 BGII               | Kaveri Seed Companay Ltd         |
| 2      | 16        | 55062        | Core 102                    | Coregenes                        |
| 3      | 1         | 55063        | KCH 9225 BGII               | Kaveri Seed Companay Ltd         |
| 4      | 7         | 55064        | NBC 21 BGII                 | Nath Biogenes                    |
| 5      | 17        | 55065        | DC 5105 BGII                | Rallis India Ltd                 |
| 6      | 4         | 55066        | KCH 9222 BGII               | Kaveri Seed Companay Ltd         |
| 7      | 11        | 55067        | C 9339 BGII                 | Mahyco Pvt Ltd                   |
| 8      | <b>15</b> | <b>55068</b> | <b>VSCH 369 BGII (ZC 2)</b> |                                  |
| 9      | 2         | 55069        | KCH 9223 BGII               | Kaveri Seed Companay Ltd         |
| 10     | 14        | 55070        | SS 459 BG II                | Eldorado Agritech Pvt. Ltd.      |
| 11     | 6         | 55071        | VSCH 372 BGII               | Veda Seed Sciences Pvt Ltd       |
| 12     | 13        | 55072        | US 717 BGII                 | Seed Works International Pvt Ltd |
| 13     | 3         | 55073        | RCH 1016 BGII               | Rasi Seed Pvt Ltd                |
| 14     | 10        | 55074        | RCH 1026 BG II              | Rasi Seed Pvt Ltd                |
| 15     | 5         | 55075        | DLCH-9 Bt II                | Dhanalakshmi                     |
| 16     | <b>8</b>  | <b>55076</b> | <b>NBC 1821 BGII (ZC 1)</b> |                                  |
| 17     | 12        | 55077        | 25D181 BGII                 | Dhanlaxmi crop science ltd       |

The trial was conducted in nine locations viz., Warangal, Lam, Raichur, B'Gudi\*, Coimbatore, Hyderabad (Kaveri), Siddipet (Seed works)\*\*, Gadwal (Dhanlaxmi) and Kareemnagar (Eldorado).

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

\*\*Trial vitiated due to excessive rainfall

**Spacing:** Recommended spacing for the hybrid has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications





**Data recorded:****Biometric evaluation****Table: Plant height (cm) at harvest in H X H hybrids**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Gadwal (Dhanlaxmi) | Mean         |
|--------|-----------------------------|----------|-------|---------|------------|--------------------|------------------------|--------------------|--------------|
| 1      | KCH 9221 BGII               | 117.4    | 150.4 | 145.7   | 103.2      | 138.0              | 158.3                  | 158.0              | <b>138.7</b> |
| 2      | Core 102                    | 137.1    | 165.2 | 143.3   | 117.2      | 141.3              | 170.4                  | 162.0              | <b>148.1</b> |
| 3      | KCH 9225 BGII               | 131.6    | 143.9 | 145.0   | 104.7      | 135.3              | 175.1                  | 152.0              | <b>141.1</b> |
| 4      | NBC 21 BGII                 | 114.9    | 150.3 | 126.7   | 97.2       | 127.3              | 165.7                  | 148.0              | <b>132.9</b> |
| 5      | DC 5105 BGII                | 143.8    | 152.8 | 138.7   | 95.0       | 146.7              | 169.0                  | 146.0              | <b>141.7</b> |
| 6      | KCH 9222 BGII               | 120.1    | 149.8 | 143.3   | 107.6      | 136.0              | 155.1                  | 159.0              | <b>138.7</b> |
| 7      | C 9339 BGII                 | 111.0    | 150.3 | 134.0   | 91.8       | 119.0              | 154.9                  | 146.0              | <b>129.6</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 134.0    | 153.5 | 136.7   | 102.3      | 134.3              | 168.2                  | 150.0              | <b>139.9</b> |
| 9      | KCH 9223 BGII               | 126.9    | 141.2 | 129.3   | 103.7      | 129.3              | 163.5                  | 149.0              | <b>134.7</b> |
| 10     | SS 459 BG II                | 135.5    | 135.5 | 124.3   | 90.3       | 129.3              | 153.0                  | 148.0              | <b>130.8</b> |
| 11     | VSCH 372 BGII               | 149.9    | 149.8 | 143.3   | 117.0      | 132.0              | 159.5                  | 156.0              | <b>143.9</b> |
| 12     | US 717 BGII                 | 138.5    | 156.8 | 140.3   | 110.7      | 132.7              | 172.7                  | 149.0              | <b>143.0</b> |
| 13     | RCH 1016 BGII               | 110.0    | 151.4 | 125.7   | 102.7      | 127.3              | 147.8                  | 172.0              | <b>133.8</b> |
| 14     | RCH 1026 BG II              | 104.5    | 163.0 | 120.7   | 101.6      | 141.7              | 170.2                  | 161.0              | <b>137.5</b> |
| 15     | DLCH-9 Bt II                | 117.9    | 142.9 | 131.7   | 102.5      | 124.7              | 160.8                  | 153.0              | <b>133.4</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 119.6    | 146.3 | 126.7   | 96.3       | 128.7              | 162.9                  | 164.0              | <b>134.9</b> |
| 17     | 25D181 BGII                 | 130.5    | 148.6 | 128.7   | 107.7      | 125.7              | 168.9                  | 157.0              | <b>138.2</b> |
|        | CD @ 5%                     | 19.8     | NS    | 8.6     | NS         | 2.3                | 18.0                   |                    |              |
|        | CV %                        | 9.4      | 10.7  | 6.6     | 9.8        | 5.1                | 6.6                    |                    |              |

Table: Number of monopodia in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Gadwal (Dhanlaxmi) | Mean |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|--------------------|------|
| 1      | KCH 9221 BGII               | 0.3      | 1.6  | 1.6     | 0.3        | 1.7                | 2.3                    | 2.1                | 1.4  |
| 2      | Core 102                    | 0.7      | 1.2  | 1.0     | 0.5        | 1.9                | 1.9                    | 1.8                | 1.3  |
| 3      | KCH 9225 BGII               | 0.2      | 1.2  | 1.7     | 0.3        | 1.6                | 2.0                    | 2.0                | 1.3  |
| 4      | NBC 21 BGII                 | 1.2      | 1.4  | 1.9     | 0.5        | 2.7                | 2.3                    | 1.9                | 1.7  |
| 5      | DC 5105 BGII                | 0.3      | 0.6  | 1.2     | 0.2        | 1.5                | 1.2                    | 1.6                | 0.9  |
| 6      | KCH 9222 BGII               | 0.6      | 0.6  | 1.3     | 0.6        | 1.7                | 1.4                    | 1.8                | 1.1  |
| 7      | C 9339 BGII                 | 0.3      | 1.3  | 1.7     | 0.9        | 2.4                | 2.2                    | 2.2                | 1.6  |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 0.2      | 0.2  | 1.5     | 0.4        | 2.1                | 1.2                    | 1.6                | 1.0  |
| 9      | KCH 9223 BGII               | 0.3      | 1.2  | 1.0     | 0.0        | 1.8                | 2.1                    | 2.3                | 1.2  |
| 10     | SS 459 BG II                | 0.7      | 1.3  | 1.5     | 0.4        | 1.7                | 1.6                    | 2.1                | 1.3  |
| 11     | VSCH 372 BGII               | 1.9      | 1.4  | 2.0     | 0.5        | 2.7                | 1.5                    | 1.9                | 1.7  |
| 12     | US 717 BGII                 | 0.5      | 1.7  | 1.8     | 0.2        | 2.1                | 1.2                    | 2.4                | 1.4  |
| 13     | RCH 1016 BGII               | 1.0      | 1.2  | 1.9     | 0.6        | 2.2                | 1.9                    | 1.7                | 1.5  |
| 14     | RCH 1026 BG II              | 0.9      | 1.4  | 1.4     | 0.1        | 2.5                | 1.6                    | 1.3                | 1.3  |
| 15     | DLCH-9 Bt II                | 0.5      | 1.4  | 1.9     | 0.2        | 2.0                | 2.1                    | 1.5                | 1.4  |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 1.0      | 1.4  | 1.9     | 0.4        | 1.7                | 2.3                    | 2.0                | 1.5  |
| 17     | 25D181 BGII                 | 1.0      | 0.5  | 1.5     | 0.3        | 1.7                | 2.2                    | 1.7                | 1.3  |
|        | CD @ 5%                     | 0.7      | 0.2  | 0.3     | NS         | 20.0               | 0.6                    |                    |      |
|        | CV %                        | 64.4     | 12.5 | 16.5    | 39.8       | 0.7                | 18.5                   |                    |      |

Table: Number of sympodia in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Gadwal (Dhanlaxmi) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|--------------------|-------------|
| 1      | KCH 9221 BGII               | 19.1     | 19.5 | 20.0    | 15.0       | 14.6               | 23.8                   | 16.3               | <b>18.3</b> |
| 2      | Core 102                    | 17.7     | 22.6 | 18.0    | 16.2       | 15.5               | 23.5                   | 17.2               | <b>18.7</b> |
| 3      | KCH 9225 BGII               | 17.3     | 18.1 | 19.7    | 13.9       | 16.2               | 22.4                   | 16.9               | <b>17.8</b> |
| 4      | NBC 21 BGII                 | 18.3     | 18.3 | 18.7    | 16.9       | 16.1               | 22.9                   | 14.6               | <b>18.0</b> |
| 5      | DC 5105 BGII                | 18.7     | 18.7 | 20.0    | 14.0       | 15.3               | 24.5                   | 15.4               | <b>18.1</b> |
| 6      | KCH 9222 BGII               | 16.6     | 19.2 | 19.0    | 13.0       | 15.9               | 24.5                   | 16.7               | <b>17.8</b> |
| 7      | C 9339 BGII                 | 15.9     | 22.2 | 19.0    | 14.9       | 14.3               | 24.9                   | 14.9               | <b>18.0</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 17.7     | 22.6 | 15.7    | 13.4       | 15.8               | 23.5                   | 17.7               | <b>18.1</b> |
| 9      | KCH 9223 BGII               | 18.5     | 22.2 | 19.0    | 13.7       | 14.1               | 23.3                   | 15.2               | <b>18.0</b> |
| 10     | SS 459 BG II                | 16.8     | 22.1 | 17.0    | 15.1       | 14.2               | 24.3                   | 18.7               | <b>18.3</b> |
| 11     | VSCH 372 BGII               | 18.3     | 20.7 | 20.7    | 17.2       | 13.7               | 21.5                   | 16.3               | <b>18.3</b> |
| 12     | US 717 BGII                 | 18.3     | 21.0 | 19.7    | 18.1       | 15.0               | 23.1                   | 16.9               | <b>18.9</b> |
| 13     | RCH 1016 BGII               | 16.1     | 19.5 | 16.3    | 13.7       | 15.4               | 23.3                   | 17.1               | <b>17.3</b> |
| 14     | RCH 1026 BG II              | 15.7     | 19.3 | 16.3    | 15.6       | 14.5               | 22.8                   | 18.3               | <b>17.5</b> |
| 15     | DLCH-9 Bt II                | 18.2     | 21.3 | 19.5    | 16.2       | 13.8               | 24.2                   | 18.5               | <b>18.8</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 16.1     | 21.7 | 16.0    | 15.0       | 14.8               | 22.9                   | 17.3               | <b>17.7</b> |
| 17     | 25D181 BGII                 | 16.9     | 12.0 | 16.7    | 15.3       | 14.1               | 22.7                   | 15.9               | <b>16.2</b> |
|        | CD @ 5%                     | NS       | 4.4  | 1.7     | NS         | 6.9                | 2.6                    |                    |             |
|        | CV %                        | 9.3      | 13.3 | 9.8     | 15.6       | 1.7                | 6.8                    |                    |             |

Table: Boll weight (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad<br>(Kaveri) | Karim Nagar<br>(Eldorado) | Gadwal<br>(Dhanlaxmi) | Mean |
|--------|-----------------------------|----------|------|---------|------------|-----------------------|---------------------------|-----------------------|------|
| 1      | KCH 9221 BGII               | 4.8      | 5.0  | 6.5     | 5.8        | 5.3                   | 5.0                       | 5.1                   | 5.4  |
| 2      | Core 102                    | 5.1      | 6.2  | 6.6     | 5.4        | 5.3                   | 6.0                       | 4.9                   | 5.6  |
| 3      | KCH 9225 BGII               | 4.6      | 5.2  | 6.2     | 5.6        | 5.6                   | 5.7                       | 4.2                   | 5.3  |
| 4      | NBC 21 BGII                 | 5.1      | 5.1  | 6.9     | 5.6        | 5.0                   | 5.0                       | 5.2                   | 5.4  |
| 5      | DC 5105 BGII                | 4.8      | 5.4  | 6.3     | 6.0        | 5.3                   | 5.7                       | 4.8                   | 5.5  |
| 6      | KCH 9222 BGII               | 4.9      | 5.7  | 6.5     | 5.6        | 5.4                   | 5.6                       | 4.3                   | 5.4  |
| 7      | C 9339 BGII                 | 5.7      | 5.7  | 7.6     | 5.7        | 5.5                   | 6.0                       | 5.1                   | 5.9  |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 4.8      | 5.4  | 7.1     | 5.8        | 5.3                   | 5.5                       | 5.4                   | 5.6  |
| 9      | KCH 9223 BGII               | 5.2      | 5.3  | 6.7     | 5.7        | 5.7                   | 5.4                       | 5.3                   | 5.6  |
| 10     | SS 459 BG II                | 5.7      | 6.2  | 7.4     | 6.1        | 5.9                   | 5.9                       | 6.4                   | 6.2  |
| 11     | VSCH 372 BGII               | 4.4      | 5.5  | 6.0     | 5.5        | 5.0                   | 5.4                       | 5.7                   | 5.4  |
| 12     | US 717 BGII                 | 5.5      | 5.5  | 7.6     | 6.4        | 5.8                   | 6.0                       | 6.3                   | 6.2  |
| 13     | RCH 1016 BGII               | 5.4      | 5.6  | 6.6     | 5.8        | 4.9                   | 5.7                       | 5.9                   | 5.7  |
| 14     | RCH 1026 BG II              | 4.6      | 5.4  | 6.4     | 6.0        | 5.3                   | 5.7                       | 5.2                   | 5.5  |
| 15     | DLCH-9 Bt II                | 5.1      | 6.2  | 7.6     | 6.5        | 5.7                   | 5.6                       | 5.5                   | 6.0  |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 5.2      | 5.5  | 7.5     | 6.8        | 5.9                   | 5.3                       | 6.3                   | 6.1  |
| 17     | 25D181 BGII                 | 5.4      | 5.3  | 7.8     | 6.2        | 6.1                   | 5.4                       | 4.8                   | 5.9  |
|        | CD @ 5%                     | 0.5      | NS   | 0.3     | 0.5        | 5.6                   | 0.6                       |                       |      |
|        | CV %                        | 6.1      | 10.3 | 4.8     | 5.3        | 0.5                   | 6.2                       |                       |      |

Table: Number of bolls / plant in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Gadwal (Dhanlaxmi) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|--------------------|-------------|
| 1      | KCH 9221 BGII               | 22.5     | 49.4 | 43.7    | 23.3       | 40.3               | 42.4                   | 31.0               | <b>36.1</b> |
| 2      | Core 102                    | 30.2     | 61.3 | 41.0    | 23.3       | 36.7               | 47.4                   | 36.0               | <b>39.4</b> |
| 3      | KCH 9225 BGII               | 23.7     | 51.8 | 38.3    | 20.3       | 42.7               | 48.3                   | 41.0               | <b>38.0</b> |
| 4      | NBC 21 BGII                 | 29.9     | 56.6 | 45.0    | 21.5       | 38.0               | 45.8                   | 37.0               | <b>39.1</b> |
| 5      | DC 5105 BGII                | 23.1     | 51.3 | 35.0    | 23.5       | 36.0               | 51.7                   | 41.0               | <b>37.4</b> |
| 6      | KCH 9222 BGII               | 27.3     | 51.2 | 40.3    | 16.8       | 41.7               | 53.8                   | 39.0               | <b>38.6</b> |
| 7      | C 9339 BGII                 | 22.1     | 49.8 | 43.7    | 14.9       | 41.0               | 47.2                   | 37.0               | <b>36.5</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 22.9     | 50.5 | 42.7    | 22.7       | 35.7               | 52.0                   | 33.0               | <b>37.1</b> |
| 9      | KCH 9223 BGII               | 18.4     | 50.9 | 39.3    | 23.3       | 40.7               | 52.5                   | 34.0               | <b>37.0</b> |
| 10     | SS 459 BG II                | 17.7     | 60.5 | 40.7    | 19.5       | 32.3               | 51.2                   | 48.0               | <b>38.6</b> |
| 11     | VSCH 372 BGII               | 28.2     | 50.6 | 41.0    | 26.4       | 36.7               | 37.9                   | 34.0               | <b>36.4</b> |
| 12     | US 717 BGII                 | 20.5     | 45.7 | 40.7    | 32.4       | 35.3               | 49.7                   | 42.0               | <b>38.0</b> |
| 13     | RCH 1016 BGII               | 26.9     | 50.4 | 37.0    | 23.0       | 40.0               | 44.3                   | 38.0               | <b>37.1</b> |
| 14     | RCH 1026 BG II              | 23.3     | 51.6 | 34.0    | 21.9       | 37.3               | 46.0                   | 32.0               | <b>35.2</b> |
| 15     | DLCH-9 Bt II                | 21.7     | 60.1 | 43.0    | 21.4       | 34.3               | 48.1                   | 37.0               | <b>37.9</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 22.6     | 48.2 | 36.0    | 24.6       | 35.3               | 37.7                   | 44.0               | <b>35.5</b> |
| 17     | 25D181 BGII                 | 23.6     | 48.3 | 39.3    | 25.2       | 34.0               | 41.8                   | 38.0               | <b>35.7</b> |
|        | CD @ 5%                     | NS       | 8.5  | 3.9     | NS         | 5.6                | 9.5                    |                    |             |
|        | CV %                        | 20.1     | 9.7  | 10.1    | 21.3       | 3.5                | 12.2                   |                    |             |

Table: Number of bolls / sq.m. in H X H hybrids

| S. No. | Entries                     | Lam   | Coimbatore | Hyderabad<br>(Kaveri) | Karim Nagar<br>(Eldorado) | Gadwal<br>(Dhanlaxmi) | Mean        |
|--------|-----------------------------|-------|------------|-----------------------|---------------------------|-----------------------|-------------|
| 1      | KCH 9221 BGII               | 98.9  | 57.4       | 56.0                  | 67.4                      | 58.4                  | <b>67.6</b> |
| 2      | Core 102                    | 122.9 | 57.4       | 50.9                  | 75.2                      | 60.3                  | <b>73.3</b> |
| 3      | KCH 9225 BGII               | 103.4 | 50.0       | 59.3                  | 76.6                      | 69.3                  | <b>71.7</b> |
| 4      | NBC 21 BGII                 | 113.3 | 53.2       | 52.8                  | 72.8                      | 65.5                  | <b>71.5</b> |
| 5      | DC 5105 BGII                | 102.4 | 58.1       | 50.0                  | 82.0                      | 73.9                  | <b>73.3</b> |
| 6      | KCH 9222 BGII               | 102.2 | 41.5       | 57.9                  | 85.4                      | 60.0                  | <b>69.4</b> |
| 7      | C 9339 BGII                 | 99.6  | 36.9       | 56.9                  | 74.9                      | 66.9                  | <b>67.0</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 100.8 | 56.0       | 49.5                  | 82.5                      | 58.1                  | <b>69.4</b> |
| 9      | KCH 9223 BGII               | 101.7 | 57.6       | 56.5                  | 83.3                      | 57.6                  | <b>71.3</b> |
| 10     | SS 459 BG II                | 120.9 | 48.1       | 44.9                  | 81.2                      | 85.9                  | <b>76.2</b> |
| 11     | VSCH 372 BGII               | 101.2 | 65.2       | 50.9                  | 60.2                      | 60.1                  | <b>67.5</b> |
| 12     | US 717 BGII                 | 91.3  | 80.0       | 49.1                  | 78.9                      | 72.8                  | <b>74.4</b> |
| 13     | RCH 1016 BGII               | 101.1 | 56.8       | 55.6                  | 70.4                      | 61.3                  | <b>69.0</b> |
| 14     | RCH 1026 BG II              | 103.2 | 54.2       | 51.9                  | 73.0                      | 60.6                  | <b>68.6</b> |
| 15     | DLCH-9 Bt II                | 120.2 | 52.8       | 47.7                  | 76.3                      | 65.1                  | <b>72.4</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 96.4  | 60.7       | 49.1                  | 59.9                      | 80.4                  | <b>69.3</b> |
| 17     | 25D181 BGII                 | 96.3  | 62.2       | 47.2                  | 66.4                      | 65.9                  | <b>67.6</b> |
|        | CD @ 5%                     | 17.3  | NS         | 5.6                   | 15.1                      |                       |             |
|        | CV %                        | 9.7   | 21.3       | 4.9                   | 12.2                      |                       |             |

Table: Lint Index (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | 56.0 | Karim Nagar<br>(Eldorado) | Gadwal<br>(Dhanlaxmi) | Mean |
|--------|-----------------------------|----------|------|---------|------------|------|---------------------------|-----------------------|------|
| 1      | KCH 9221 BGII               | 5.8      | 5.9  | 6.0     | 7.3        | 5.6  | 6.0                       | 5.9                   | 6.1  |
| 2      | Core 102                    | 6.5      | 7.2  | 6.9     | 7.3        | 5.9  | 6.5                       | 5.7                   | 6.6  |
| 3      | KCH 9225 BGII               | 5.0      | 6.5  | 5.6     | 5.9        | 5.2  | 5.4                       | 6.1                   | 5.7  |
| 4      | NBC 21 BGII                 | 5.9      | 7.0  | 6.5     | 6.9        | 5.6  | 6.1                       | 5.2                   | 6.2  |
| 5      | DC 5105 BGII                | 6.7      | 6.2  | 7.5     | 7.8        | 6.0  | 5.8                       | 5.4                   | 6.5  |
| 6      | KCH 9222 BGII               | 5.1      | 6.1  | 5.0     | 5.7        | 5.0  | 5.5                       | 6.3                   | 5.5  |
| 7      | C 9339 BGII                 | 6.0      | 5.9  | 6.2     | 6.7        | 5.8  | 5.6                       | 6.0                   | 6.0  |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 6.5      | 6.0  | 7.4     | 8.0        | 6.9  | 6.3                       | 5.9                   | 6.7  |
| 9      | KCH 9223 BGII               | 5.4      | 6.1  | 5.9     | 6.9        | 5.7  | 6.3                       | 6.2                   | 6.1  |
| 10     | SS 459 BG II                | 6.5      | 7.2  | 7.1     | 7.7        | 5.7  | 6.5                       | 6.5                   | 6.7  |
| 11     | VSCH 372 BGII               | 5.5      | 6.1  | 6.3     | 7.5        | 5.7  | 5.7                       | 5.5                   | 6.0  |
| 12     | US 717 BGII                 | 6.3      | 5.4  | 7.2     | 7.6        | 6.5  | 6.4                       | 6.2                   | 6.5  |
| 13     | RCH 1016 BGII               | 6.2      | 5.9  | 6.7     | 7.8        | 5.3  | 5.9                       | 5.3                   | 6.2  |
| 14     | RCH 1026 BG II              | 6.5      | 6.3  | 7.0     | 8.1        | 6.2  | 5.8                       | 5.7                   | 6.5  |
| 15     | DLCH-9 Bt II                | 5.5      | 7.2  | 7.1     | 6.4        | 5.5  | 6.1                       | 5.9                   | 6.2  |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 5.5      | 5.6  | 6.2     | 7.1        | 5.3  | 5.8                       | 6.4                   | 6.0  |
| 17     | 25D181 BGII                 | 5.9      | 5.8  | 6.8     | 7.0        | 5.3  | 5.9                       | 5.6                   | 6.0  |
|        | CD @ 5%                     | 0.6      | 1.2  | 0.3     | 0.6        | 3.8  | 0.8                       |                       |      |
|        | CV %                        | 6.0      | 11.1 | 5.2     | 4.9        | 0.4  | 8.1                       |                       |      |

Table: Seed Index (g) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad<br>(Kaveri) | Karim Nagar<br>(Eldorado) | Gadwal<br>(Dhanlaxmi) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-----------------------|---------------------------|-----------------------|-------------|
| 1      | KCH 9221 BGII               | 11.1     | 12.6 | 10.7    | 12.4       | 9.7                   | 10.7                      | 10.8                  | <b>11.1</b> |
| 2      | Core 102                    | 11.4     | 12.0 | 11.3    | 11.5       | 9.0                   | 11.0                      | 11.2                  | <b>11.1</b> |
| 3      | KCH 9225 BGII               | 10.5     | 11.7 | 10.0    | 11.2       | 8.9                   | 10.3                      | 9.7                   | <b>10.3</b> |
| 4      | NBC 21 BGII                 | 11.7     | 11.6 | 11.9    | 12.6       | 10.0                  | 11.0                      | 11.6                  | <b>11.5</b> |
| 5      | DC 5105 BGII                | 11.2     | 12.1 | 11.8    | 12.6       | 9.0                   | 10.0                      | 11.2                  | <b>11.1</b> |
| 6      | KCH 9222 BGII               | 10.5     | 12.2 | 10.0    | 11.2       | 8.8                   | 10.7                      | 10.3                  | <b>10.5</b> |
| 7      | C 9339 BGII                 | 13.0     | 12.5 | 12.8    | 13.3       | 10.4                  | 11.3                      | 11.8                  | <b>12.2</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 10.0     | 12.4 | 10.6    | 11.0       | 9.3                   | 10.0                      | 11.3                  | <b>10.7</b> |
| 9      | KCH 9223 BGII               | 11.0     | 12.2 | 10.9    | 12.5       | 9.8                   | 11.3                      | 10.7                  | <b>11.2</b> |
| 10     | SS 459 BG II                | 12.2     | 11.4 | 12.2    | 12.9       | 9.4                   | 11.0                      | 10.1                  | <b>11.3</b> |
| 11     | VSCH 372 BGII               | 9.9      | 12.3 | 11.3    | 12.6       | 9.8                   | 9.7                       | 11.5                  | <b>11.0</b> |
| 12     | US 717 BGII                 | 12.2     | 12.6 | 13.6    | 13.8       | 10.7                  | 11.3                      | 10.3                  | <b>12.1</b> |
| 13     | RCH 1016 BGII               | 11.3     | 12.4 | 11.2    | 12.6       | 9.1                   | 10.3                      | 11.6                  | <b>11.2</b> |
| 14     | RCH 1026 BG II              | 11.0     | 12.0 | 11.4    | 12.5       | 9.4                   | 10.7                      | 10.9                  | <b>11.1</b> |
| 15     | DLCH-9 Bt II                | 11.6     | 11.4 | 12.5    | 13.5       | 10.3                  | 11.0                      | 11.8                  | <b>11.7</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 11.9     | 12.6 | 12.1    | 13.2       | 9.9                   | 11.7                      | 10.2                  | <b>11.7</b> |
| 17     | 25D181 BGII                 | 11.6     | 12.6 | 12.9    | 12.4       | 9.1                   | 11.7                      | 11.5                  | <b>11.7</b> |
|        | CD @ 5%                     | 1.5      | NS   | 0.5     | 0.7        | 4.1                   | 1.2                       |                       |             |
|        | CV %                        | 7.7      | 10.8 | 4.6     | 3.5        | 0.7                   | 6.6                       |                       |             |



Table: Ginning outturn (%) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Gadwal (Dhanlaxmi) | Mean |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|--------------------|------|
| 1      | KCH 9221 BGII               | 34.4     | 32.1 | 35.7    | 37.2       | 36.7               | 36.2                   | 36.4               | 35.5 |
| 2      | Core 102                    | 36.3     | 37.7 | 37.7    | 38.9       | 39.5               | 37.2                   | 35.1               | 37.5 |
| 3      | KCH 9225 BGII               | 32.5     | 35.9 | 36.0    | 34.7       | 36.6               | 34.5                   | 38.5               | 35.5 |
| 4      | NBC 21 BGII                 | 33.9     | 37.8 | 35.4    | 35.4       | 35.7               | 35.9                   | 36.9               | 35.9 |
| 5      | DC 5105 BGII                | 37.3     | 33.8 | 38.8    | 38.3       | 40.0               | 36.7                   | 35.7               | 37.2 |
| 6      | KCH 9222 BGII               | 32.6     | 33.7 | 33.2    | 33.6       | 36.4               | 33.9                   | 37.1               | 34.4 |
| 7      | C 9339 BGII                 | 31.6     | 32.0 | 32.5    | 33.4       | 35.7               | 33.2                   | 34.9               | 33.3 |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 39.4     | 32.6 | 41.1    | 42.2       | 42.5               | 38.8                   | 36.1               | 39.0 |
| 9      | KCH 9223 BGII               | 32.8     | 33.5 | 35.2    | 35.6       | 36.5               | 35.8                   | 37.2               | 35.2 |
| 10     | SS 459 BG II                | 34.9     | 38.5 | 36.8    | 37.5       | 37.9               | 37.1                   | 39.9               | 37.5 |
| 11     | VSCH 372 BGII               | 35.5     | 33.1 | 35.6    | 37.3       | 36.5               | 36.9                   | 36.3               | 35.9 |
| 12     | US 717 BGII                 | 34.0     | 29.9 | 34.6    | 35.7       | 37.9               | 36.0                   | 38.7               | 35.3 |
| 13     | RCH 1016 BGII               | 35.3     | 32.3 | 37.5    | 38.1       | 36.9               | 36.3                   | 36.4               | 36.1 |
| 14     | RCH 1026 BG II              | 37.3     | 34.4 | 38.0    | 39.2       | 39.6               | 35.1                   | 37.2               | 37.3 |
| 15     | DLCH-9 Bt II                | 32.2     | 38.5 | 36.3    | 32.1       | 34.9               | 35.8                   | 35.1               | 35.0 |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 31.5     | 32.3 | 33.8    | 34.9       | 35.1               | 33.2                   | 39.7               | 34.4 |
| 17     | 25D181 BGII                 | 33.6     | 31.4 | 34.6    | 36.1       | 37.0               | 33.8                   | 36.6               | 34.7 |
|        | CD @ 5%                     | 2.2      | 4.7  | 0.7     | 1.3        | 1.4                | 2.3                    |                    |      |
|        | CV %                        | 3.9      | 8.3  | 2.0     | 2.1        | 0.9                | 3.8                    |                    |      |

Table: Upper Half Mean Length (mm) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | KCH 9221 BGII               | 29.1     | 30.4 | 31.3    | 30.2       | 29.5               | 30.8                   | <b>30.2</b> |
| 2      | Core 102                    | 27.9     | 29.8 | 28.9    | 28.4       | 28.2               | 29.0                   | <b>28.7</b> |
| 3      | KCH 9225 BGII               | 27.3     | 28.2 | 26.6    | 27.7       | 26.7               | 27.8                   | <b>27.4</b> |
| 4      | NBC 21 BGII                 | 27.7     | 28.7 | 28.5    | 28.1       | 27.8               | 27.7                   | <b>28.1</b> |
| 5      | DC 5105 BGII                | 26.3     | 27.4 | 26.7    | 26.7       | 25.8               | 26.3                   | <b>26.5</b> |
| 6      | KCH 9222 BGII               | 26.8     | 27.6 | 27.0    | 27.8       | 26.6               | 28.1                   | <b>27.3</b> |
| 7      | C 9339 BGII                 | 26.2     | 27.1 | 28.9    | 27.9       | 27.3               | 27.8                   | <b>27.5</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 26.9     | 27.4 | 27.1    | 26.4       | 26.3               | 26.9                   | <b>26.8</b> |
| 9      | KCH 9223 BGII               | 28.3     | 29.7 | 29.8    | 29.9       | 29.2               | 29.9                   | <b>29.5</b> |
| 10     | SS 459 BG II                | 28.9     | 28.8 | 30.6    | 29.2       | 29.6               | 29.7                   | <b>29.5</b> |
| 11     | VSCH 372 BGII               | 27.5     | 28.5 | 28.3    | 28.2       | 27.8               | 28.9                   | <b>28.2</b> |
| 12     | US 717 BGII                 | 29.3     | 30.4 | 30.6    | 31.1       | 30.8               | 31.6                   | <b>30.6</b> |
| 13     | RCH 1016 BGII               | 26.8     | 29.7 | 28.9    | 29.1       | 27.1               | 28.3                   | <b>28.3</b> |
| 14     | RCH 1026 BG II              | 26.2     | 28.2 | 28.2    | 27.8       | 25.5               | 26.6                   | <b>27.1</b> |
| 15     | DLCH-9 Bt II                | 30.0     | 32.0 | 30.9    | 32.2       | 30.0               | 30.2                   | <b>30.9</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 29.7     | 30.4 | 30.6    | 31.5       | 30.6               | 31.5                   | <b>30.7</b> |
| 17     | 25D181 BGII                 | 28.5     | 29.9 | 30.2    | 30.1       | 29.3               | 30.2                   | <b>29.7</b> |

Table: Uniformity index under HVI Mode in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad<br>(Kaveri) | Karim Nagar<br>(Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-----------------------|---------------------------|-------------|
| 1      | KCH 9221 BGII               | 82.0     | 83.0 | 85.0    | 84.8       | 84.0                  | 85.0                      | <b>84.0</b> |
| 2      | Core 102                    | 84.0     | 86.0 | 86.0    | 85.0       | 85.0                  | 86.0                      | <b>85.3</b> |
| 3      | KCH 9225 BGII               | 85.0     | 85.0 | 84.0    | 85.4       | 85.0                  | 87.0                      | <b>85.2</b> |
| 4      | NBC 21 BGII                 | 84.0     | 85.0 | 86.0    | 85.0       | 86.0                  | 84.0                      | <b>85.0</b> |
| 5      | DC 5105 BGII                | 83.0     | 85.0 | 86.0    | 84.6       | 84.0                  | 85.0                      | <b>84.6</b> |
| 6      | KCH 9222 BGII               | 85.0     | 86.0 | 84.0    | 85.3       | 84.0                  | 86.0                      | <b>85.1</b> |
| 7      | C 9339 BGII                 | 84.0     | 85.0 | 86.0    | 85.8       | 85.0                  | 87.0                      | <b>85.5</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 84.0     | 84.0 | 85.0    | 84.6       | 84.0                  | 85.0                      | <b>84.4</b> |
| 9      | KCH 9223 BGII               | 83.0     | 85.0 | 86.0    | 86.5       | 85.0                  | 85.0                      | <b>85.1</b> |
| 10     | SS 459 BG II                | 84.0     | 85.0 | 85.0    | 84.7       | 86.0                  | 85.0                      | <b>85.0</b> |
| 11     | VSCH 372 BGII               | 83.0     | 85.0 | 84.0    | 84.6       | 85.0                  | 85.0                      | <b>84.4</b> |
| 12     | US 717 BGII                 | 83.0     | 86.0 | 87.0    | 87.2       | 87.0                  | 86.0                      | <b>86.0</b> |
| 13     | RCH 1016 BGII               | 82.0     | 87.0 | 85.0    | 85.3       | 83.0                  | 85.0                      | <b>84.6</b> |
| 14     | RCH 1026 BG II              | 84.0     | 85.0 | 86.0    | 84.6       | 85.0                  | 84.0                      | <b>84.8</b> |
| 15     | DLCH-9 Bt II                | 84.0     | 82.0 | 87.0    | 85.5       | 86.0                  | 87.0                      | <b>85.3</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 84.0     | 85.0 | 86.0    | 87.3       | 87.0                  | 87.0                      | <b>86.1</b> |
| 17     | 25D181 BGII                 | 84.0     | 85.0 | 86.0    | 86.3       | 85.0                  | 85.0                      | <b>85.2</b> |

Table: Micronaire under HVI Mode in H X H hybrids

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|--------------------|------------------------|------------|
| 1      | KCH 9221 BGII               | 5.2      | 5.4 | 5.4     | 5.4        | 4.8                | 5.3                    | <b>5.3</b> |
| 2      | Core 102                    | 5.1      | 5.1 | 5.0     | 5.1        | 4.9                | 5.0                    | <b>5.0</b> |
| 3      | KCH 9225 BGII               | 5.0      | 4.8 | 4.9     | 4.9        | 4.3                | 4.6                    | <b>4.8</b> |
| 4      | NBC 21 BGII                 | 5.2      | 5.2 | 5.2     | 4.9        | 4.7                | 4.8                    | <b>5.0</b> |
| 5      | DC 5105 BGII                | 4.9      | 4.9 | 5.3     | 4.9        | 4.2                | 4.6                    | <b>4.8</b> |
| 6      | KCH 9222 BGII               | 5.1      | 4.9 | 5.1     | 5.0        | 4.3                | 4.6                    | <b>4.8</b> |
| 7      | C 9339 BGII                 | 4.9      | 4.7 | 5.4     | 4.9        | 4.6                | 4.7                    | <b>4.9</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 6.0      | 5.5 | 5.8     | 5.8        | 5.1                | 5.5                    | <b>5.6</b> |
| 9      | KCH 9223 BGII               | 5.1      | 4.9 | 4.9     | 4.9        | 4.2                | 4.9                    | <b>4.8</b> |
| 10     | SS 459 BG II                | 5.1      | 5.2 | 5.4     | 5.0        | 4.4                | 4.9                    | <b>5.0</b> |
| 11     | VSCH 372 BGII               | 5.5      | 5.9 | 5.9     | 5.8        | 5.5                | 5.2                    | <b>5.6</b> |
| 12     | US 717 BGII                 | 5.3      | 5.1 | 5.5     | 5.1        | 4.8                | 5.3                    | <b>5.2</b> |
| 13     | RCH 1016 BGII               | 5.0      | 5.2 | 5.4     | 5.1        | 5.1                | 5.1                    | <b>5.2</b> |
| 14     | RCH 1026 BG II              | 4.7      | 4.7 | 5.1     | 4.9        | 4.5                | 4.8                    | <b>4.8</b> |
| 15     | DLCH-9 Bt II                | 4.0      | 4.2 | 4.7     | 3.9        | 4.1                | 4.3                    | <b>4.2</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 4.3      | 4.4 | 4.6     | 4.3        | 3.9                | 4.0                    | <b>4.3</b> |
| 17     | 25D181 BGII                 | 4.7      | 4.7 | 5.0     | 4.6        | 4.1                | 4.5                    | <b>4.6</b> |

Table: Tenacity under HVI Mode in H X H hybrids

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Hyderabad (Kaveri) | Karim Nagar (Eldorado) | Mean        |
|--------|-----------------------------|----------|------|---------|------------|--------------------|------------------------|-------------|
| 1      | KCH 9221 BGII               | 32.0     | 31.2 | 32.6    | 28.9       | 30.2               | 32.8                   | <b>31.3</b> |
| 2      | Core 102                    | 30.0     | 31.5 | 28.2    | 27.4       | 27.0               | 29.0                   | <b>28.9</b> |
| 3      | KCH 9225 BGII               | 29.5     | 30.4 | 30.5    | 29.1       | 28.7               | 30.4                   | <b>29.8</b> |
| 4      | NBC 21 BGII                 | 30.1     | 29.9 | 32.0    | 28.3       | 27.2               | 29.2                   | <b>29.5</b> |
| 5      | DC 5105 BGII                | 27.9     | 28.5 | 29.1    | 26.5       | 26.0               | 28.3                   | <b>27.7</b> |
| 6      | KCH 9222 BGII               | 28.4     | 29.9 | 30.2    | 28.2       | 29.1               | 30.4                   | <b>29.4</b> |
| 7      | C 9339 BGII                 | 27.6     | 27.4 | 29.0    | 27.9       | 26.9               | 28.2                   | <b>27.8</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 28.8     | 29.2 | 26.4    | 26.0       | 24.2               | 27.4                   | <b>27.0</b> |
| 9      | KCH 9223 BGII               | 30.3     | 30.8 | 31.1    | 29.4       | 28.9               | 30.7                   | <b>30.2</b> |
| 10     | SS 459 BG II                | 31.9     | 29.3 | 30.9    | 28.3       | 28.1               | 29.5                   | <b>29.7</b> |
| 11     | VSCH 372 BGII               | 30.0     | 30.4 | 28.7    | 27.0       | 28.3               | 29.5                   | <b>29.0</b> |
| 12     | US 717 BGII                 | 31.6     | 30.0 | 32.0    | 28.8       | 29.2               | 31.2                   | <b>30.5</b> |
| 13     | RCH 1016 BGII               | 28.3     | 30.4 | 32.2    | 28.7       | 29.2               | 29.8                   | <b>29.8</b> |
| 14     | RCH 1026 BG II              | 27.4     | 30.1 | 30.8    | 27.5       | 27.5               | 27.8                   | <b>28.5</b> |
| 15     | DLCH-9 Bt II                | 33.3     | 30.4 | 33.8    | 29.8       | 29.2               | 31.5                   | <b>31.3</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 31.8     | 32.2 | 33.3    | 31.8       | 30.1               | 33.5                   | <b>32.1</b> |
| 17     | 25D181 BGII                 | 30.7     | 29.8 | 28.9    | 27.9       | 29.4               | 32.0                   | <b>29.8</b> |

Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Hyderabad<br>(Kaveri) | Karim Nagar<br>(Eldorado) | Gadwal<br>(Dhanlaxmi) | Mean         |
|--------|-----------------------------|----------|-------|------------|-----------------------|---------------------------|-----------------------|--------------|
| 1      | KCH 9221 BGII               | 4.59     | 16.98 | 15.43      | 25.84                 | 10.09                     | 18.21                 | <b>15.19</b> |
| 2      | Core 102                    | 7.22     | 22.54 | 22.72      | 22.90                 | 15.45                     | 19.14                 | <b>18.33</b> |
| 3      | KCH 9225 BGII               | 6.12     | 19.52 | 25.00      | 26.14                 | 13.57                     | 16.67                 | <b>17.84</b> |
| 4      | NBC 21 BGII                 | 6.72     | 20.48 | 18.34      | 23.55                 | 11.90                     | 19.75                 | <b>16.79</b> |
| 5      | DC 5105 BGII                | 5.86     | 18.97 | 20.85      | 21.93                 | 15.39                     | 20.06                 | <b>17.18</b> |
| 6      | KCH 9222 BGII               | 7.18     | 18.81 | 20.81      | 25.14                 | 15.87                     | 19.17                 | <b>17.83</b> |
| 7      | C 9339 BGII                 | 5.73     | 17.26 | 10.61      | 23.60                 | 13.21                     | 23.70                 | <b>15.69</b> |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 5.12     | 17.86 | 16.87      | 21.46                 | 15.82                     | 19.75                 | <b>16.15</b> |
| 9      | KCH 9223 BGII               | 5.60     | 18.77 | 23.62      | 25.02                 | 15.80                     | 18.21                 | <b>17.84</b> |
| 10     | SS 459 BG II                | 6.49     | 22.38 | 20.36      | 22.55                 | 16.31                     | 21.50                 | <b>18.27</b> |
| 11     | VSCH 372 BGII               | 7.30     | 18.41 | 18.16      | 23.30                 | 11.22                     | 16.98                 | <b>15.90</b> |
| 12     | US 717 BGII                 | 5.62     | 15.79 | 19.56      | 22.53                 | 14.47                     | 19.75                 | <b>16.29</b> |
| 13     | RCH 1016 BGII               | 8.17     | 17.70 | 19.05      | 22.94                 | 13.66                     | 22.84                 | <b>17.39</b> |
| 14     | RCH 1026 BG II              | 8.48     | 19.05 | 22.45      | 23.61                 | 13.95                     | 23.46                 | <b>18.50</b> |
| 15     | DLCH-9 Bt II                | 7.16     | 22.38 | 24.84      | 21.59                 | 11.94                     | 20.06                 | <b>18.00</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 4.75     | 15.79 | 19.85      | 22.76                 | 11.99                     | 20.37                 | <b>15.92</b> |
| 17     | 25D181 BGII                 | 6.71     | 16.51 | 17.78      | 20.90                 | 12.99                     | 15.12                 | <b>15.00</b> |
|        | CD @ 5%                     | 1.96     | 4.22  | 3.60       | 3.38                  | 3.06                      |                       |              |
|        | CV %                        | 18.28    | 13.45 | 10.81      | 1.31                  | 13.39                     |                       |              |

Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Hyderabad<br>(Kaveri) | Karim Nagar<br>(Eldorado) | Gadwal<br>(Dhanlaxmi) | Mean         |
|--------|-----------------------------|----------|-------|------------|-----------------------|---------------------------|-----------------------|--------------|
| 1      | KCH 9221 BGII               | 7.56     | 11.32 | 16.87      | 8.83                  | 7.29                      | 15.12                 | <b>11.17</b> |
| 2      | Core 102                    | 8.15     | 15.03 | 10.70      | 4.88                  | 8.48                      | 9.57                  | <b>9.47</b>  |
| 3      | KCH 9225 BGII               | 7.27     | 13.02 | 10.12      | 7.38                  | 8.07                      | 14.51                 | <b>10.06</b> |
| 4      | NBC 21 BGII                 | 6.51     | 13.65 | 11.44      | 4.97                  | 8.04                      | 16.36                 | <b>10.16</b> |
| 5      | DC 5105 BGII                | 4.61     | 12.65 | 12.96      | 5.76                  | 8.10                      | 10.49                 | <b>9.10</b>  |
| 6      | KCH 9222 BGII               | 7.73     | 12.54 | 6.21       | 7.29                  | 8.15                      | 9.50                  | <b>8.57</b>  |
| 7      | C 9339 BGII                 | 6.41     | 11.51 | 6.26       | 6.53                  | 10.20                     | 16.90                 | <b>9.64</b>  |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 4.27     | 11.90 | 17.08      | 5.52                  | 6.83                      | 17.90                 | <b>10.58</b> |
| 9      | KCH 9223 BGII               | 3.40     | 12.51 | 8.52       | 7.18                  | 6.55                      | 16.05                 | <b>9.04</b>  |
| 10     | SS 459 BG II                | 3.72     | 14.92 | 7.86       | 3.58                  | 7.59                      | 20.99                 | <b>9.78</b>  |
| 11     | VSCH 372 BGII               | 7.43     | 12.28 | 20.91      | 4.59                  | 6.72                      | 8.95                  | <b>10.15</b> |
| 12     | US 717 BGII                 | 6.28     | 10.53 | 21.07      | 4.92                  | 9.22                      | 19.14                 | <b>11.86</b> |
| 13     | RCH 1016 BGII               | 5.19     | 11.80 | 12.39      | 6.30                  | 6.47                      | 20.68                 | <b>10.47</b> |
| 14     | RCH 1026 BG II              | 5.17     | 12.70 | 11.36      | 5.65                  | 6.84                      | 18.21                 | <b>9.99</b>  |
| 15     | DLCH-9 Bt II                | 7.44     | 14.92 | 15.43      | 3.79                  | 9.13                      | 13.27                 | <b>10.66</b> |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 6.17     | 10.53 | 14.24      | 3.99                  | 6.51                      | 15.74                 | <b>9.53</b>  |
| 17     | 25D181 BGII                 | 5.10     | 11.01 | 13.17      | 5.32                  | 6.76                      | 13.58                 | <b>9.16</b>  |
|        | CD @ 5%                     | 1.90     | 2.81  | 4.50       | 15.84                 | 1.62                      |                       |              |
|        | CV %                        | 18.84    | 13.41 | 21.22      | 1.49                  | 12.66                     |                       |              |

Table: Total Seed Cotton Yield (q/ha) in H X H hybrids

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Hyderabad<br>(Kaveri) | Karim<br>Nagar<br>(Eldorado) | Gadwal<br>(Dhanlaxmi) | Mean         | Rank | % Inc<br>over<br>best<br>check |
|--------|-----------------------------|----------|-------|---------|------------|-----------------------|------------------------------|-----------------------|--------------|------|--------------------------------|
| 1      | KCH 9221 BGII               | 12.16    | 28.31 | 35.70   | 32.31      | 34.67                 | 17.38                        | 33.33                 | <b>27.69</b> | 14   | -2.5                           |
| 2      | Core 102                    | 15.37    | 37.57 | 42.90   | 33.42      | 27.78                 | 23.93                        | 28.70                 | <b>29.95</b> | 4    | 5.4                            |
| 3      | KCH 9225 BGII               | 13.39    | 32.54 | 39.76   | 35.13      | 33.52                 | 21.64                        | 31.48                 | <b>29.64</b> | 5    | 4.3                            |
| 4      | NBC 21 BGII                 | 13.23    | 34.13 | 41.55   | 29.78      | 28.52                 | 19.95                        | 36.11                 | <b>29.04</b> | 8    | 2.2                            |
| 5      | DC 5105 BGII                | 10.47    | 31.61 | 34.79   | 33.81      | 27.69                 | 23.49                        | 30.56                 | <b>27.49</b> | 15   | -3.2                           |
| 6      | KCH 9222 BGII               | 14.91    | 31.35 | 36.28   | 27.02      | 32.43                 | 24.01                        | 28.70                 | <b>27.81</b> | 11   | -2.1                           |
| 7      | C 9339 BGII                 | 12.14    | 28.77 | 42.74   | 16.86      | 30.13                 | 23.41                        | 40.64                 | <b>27.81</b> | 12   | -2.1                           |
| 8      | <b>VSCH 369 BGII (ZC 2)</b> | 9.38     | 29.76 | 38.42   | 33.95      | 26.97                 | 22.65                        | 37.72                 | <b>28.41</b> | 9    | 0.0                            |
| 9      | KCH 9223 BGII               | 9.00     | 31.28 | 32.90   | 32.13      | 32.21                 | 22.35                        | 34.26                 | <b>27.73</b> | 13   | -2.4                           |
| 10     | SS 459 BG II                | 10.20    | 37.30 | 42.36   | 28.22      | 26.14                 | 23.90                        | 42.59                 | <b>30.10</b> | 2    | 6.0                            |
| 11     | VSCH 372 BGII               | 14.73    | 30.69 | 42.23   | 39.07      | 27.89                 | 17.94                        | 25.93                 | <b>28.35</b> | 10   | -0.2                           |
| 12     | US 717 BGII                 | 11.90    | 26.32 | 41.03   | 40.63      | 27.45                 | 23.69                        | 38.89                 | <b>29.99</b> | 3    | 5.6                            |
| 13     | RCH 1016 BGII               | 13.36    | 29.50 | 37.60   | 31.44      | 29.24                 | 20.13                        | 43.52                 | <b>29.26</b> | 7    | 3.0                            |
| 14     | RCH 1026 BG II              | 13.66    | 31.75 | 35.40   | 33.81      | 29.27                 | 20.79                        | 41.67                 | <b>29.48</b> | 6    | 3.8                            |
| 15     | DLCH-9 Bt II                | 14.59    | 37.30 | 43.06   | 40.28      | 25.39                 | 21.07                        | 33.33                 | <b>30.72</b> | 1    | 8.1                            |
| 16     | <b>NBC 1821 BGII (ZC 1)</b> | 10.92    | 26.32 | 34.55   | 34.09      | 26.75                 | 18.50                        | 36.11                 | <b>26.75</b> | 16   | -5.8                           |
| 17     | 25D181 BGII                 | 11.81    | 27.51 | 39.96   | 30.95      | 26.21                 | 19.75                        | 28.70                 | <b>26.41</b> | 17   | -7.0                           |
|        | CD @ 5%                     | 3.14     | 7.03  | 2.87    | 6.00       | 3.87                  | 3.17                         |                       |              |      |                                |
|        | CV %                        | 15.14    | 13.45 | 7.68    | 11.18      | 1.86                  | 8.89                         |                       |              |      |                                |



**Evaluation under Protected Condition for Insect pests  
Reaction to Insect Pest**

**Table: Advanced H X H trial in South Zone under Protected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |             |
| KCH 9221 BGII        | 0.83                              | 1.76 | 2.41 | 4.53 | <b>2.38</b> | <b>BETL</b> |
| Core 102             | 1.40                              | 3.47 | 0.87 | 5.11 | <b>2.71</b> | <b>BETL</b> |
| KCH 9225 BGII        | 0.97                              | 1.61 | 1.34 | 3.64 | <b>1.89</b> | <b>BETL</b> |
| NBC 21 BGII          | 1.17                              | 1.82 | 1.45 | 4.24 | <b>2.17</b> | <b>BETL</b> |
| DC 5105 BGII         | 1.47                              | 2.11 | 0.94 | 4.42 | <b>2.24</b> | <b>BETL</b> |
| KCH 9222 BGII        | 2.07                              | 2.51 | 0.99 | 4.27 | <b>2.46</b> | <b>BETL</b> |
| C 9339 BGII          | 1.17                              | 1.49 | 1.33 | 4.18 | <b>2.04</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 1.33                              | 1.96 | 0.78 | 5.09 | <b>2.29</b> | <b>BETL</b> |
| KCH 9223 BGII        | 1.73                              | 3.20 | 1.19 | 6.18 | <b>3.08</b> | <b>BETL</b> |
| SS 459 BG II         | 1.00                              | 3.24 | 1.09 | 5.29 | <b>2.66</b> | <b>BETL</b> |
| VSCH 372 BGII        | 1.13                              | 1.02 | 0.90 | 5.31 | <b>2.09</b> | <b>BETL</b> |
| US 717 BGII          | 0.83                              | 1.87 | 1.19 | 5.44 | <b>2.33</b> | <b>BETL</b> |
| RCH 1016 BGII        | 1.23                              | 1.82 | 0.86 | 5.00 | <b>2.23</b> | <b>BETL</b> |
| RCH 1026 BG II       | 1.70                              | 2.31 | 1.52 | 3.80 | <b>2.33</b> | <b>BETL</b> |
| DLCH-9 Bt II         | 0.73                              | 2.51 | 1.10 | 5.02 | <b>2.34</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 1.43                              | 2.00 | 0.76 | 5.40 | <b>2.40</b> | <b>BETL</b> |
| 25D181 BGII          | 1.00                              | 1.56 | 1.20 | 5.16 | <b>2.23</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Advanced H X H trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| KCH 9221 BGII        | 3.73                                   | 0.07 | 0.42 | 1.93 | <b>1.54</b> | <b>BETL</b> |
| Core 102             | 3.20                                   | 0.22 | 1.45 | 2.04 | <b>1.73</b> | <b>BETL</b> |
| KCH 9225 BGII        | 3.10                                   | 0.13 | 0.43 | 1.87 | <b>1.38</b> | <b>BETL</b> |
| NBC 21 BGII          | 2.13                                   | 0.24 | 1.31 | 1.51 | <b>1.30</b> | <b>BETL</b> |
| DC 5105 BGII         | 3.13                                   | 0.09 | 0.54 | 1.27 | <b>1.26</b> | <b>BETL</b> |
| KCH 9222 BGII        | 3.60                                   | 0.07 | 0.88 | 1.73 | <b>1.57</b> | <b>BETL</b> |
| C 9339 BGII          | 3.07                                   | 0.04 | 0.73 | 1.64 | <b>1.37</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 5.07                                   | 0.22 | 0.84 | 1.91 | <b>2.01</b> | <b>BETL</b> |
| KCH 9223 BGII        | 4.03                                   | 0.09 | 1.65 | 1.76 | <b>1.88</b> | <b>BETL</b> |
| SS 459 BG II         | 3.03                                   | 0.22 | 1.78 | 1.64 | <b>1.67</b> | <b>BETL</b> |
| VSCH 372 BGII        | 4.83                                   | 0.33 | 1.05 | 1.49 | <b>1.93</b> | <b>BETL</b> |
| US 717 BGII          | 3.37                                   | 0.27 | 0.91 | 1.11 | <b>1.41</b> | <b>BETL</b> |
| RCH 1016 BGII        | 2.17                                   | 0.31 | 0.49 | 1.09 | <b>1.01</b> | <b>BETL</b> |
| RCH 1026 BG II       | 2.40                                   | 0.51 | 0.24 | 0.91 | <b>1.02</b> | <b>BETL</b> |
| DLCH-9 Bt II         | 4.37                                   | 0.29 | 0.63 | 1.49 | <b>1.69</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 4.90                                   | 0.33 | 1.00 | 1.60 | <b>1.96</b> | <b>BETL</b> |
| 25D181 BGII          | 5.27                                   | 0.20 | 1.37 | 2.22 | <b>2.26</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced H X H trial in South Zone under Protected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |    |      | Remark |
|----------------------|-----------|----|-----|----|------|--------|
|                      | GU        | RA | CBE | WR | Mean |        |
| KCH 9221 BGII        | I         | I  | I   | II | I    |        |
| Core 102             | I         | I  | I   | I  | I    |        |
| KCH 9225 BGII        | I         | I  | I   | I  | I    |        |
| NBC 21 BGII          | I         | I  | I   | I  | I    |        |
| DC 5105 BGII         | I         | I  | I   | II | I    |        |
| KCH 9222 BGII        | I         | I  | I   | I  | I    |        |
| C 9339 BGII          | I         | I  | I   | I  | I    |        |
| VSCH 369 BGII (ZC 2) | II        | I  | I   | I  | I    |        |
| KCH 9223 BGII        | I         | I  | I   | II | I    |        |
| SS 459 BG II         | II        | I  | I   | I  | I    |        |
| VSCH 372 BGII        | I         | I  | I   | I  | I    |        |
| US 717 BGII          | I         | I  | I   | I  | I    |        |
| RCH 1016 BGII        | I         | I  | I   | I  | I    |        |
| RCH 1026 BG II       | I         | I  | I   | I  | I    |        |
| DLCH-9 Bt II         | I         | I  | I   | I  | I    |        |
| NBC 1821 BGII (ZC 1) | I         | I  | I   | I  | I    |        |
| 25D181 BGII          | I         | I  | I   | I  | I    |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Advanced H X H trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark |
|----------------------|------------------------------------|------|------|-------|-------------|--------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |        |
| KCH 9221 BGII        | 3.40                               | 3.58 | 1.34 | 7.87  | <b>4.05</b> | BETL   |
| Core 102             | 3.60                               | 3.52 | 0.91 | 7.31  | <b>3.84</b> | BETL   |
| KCH 9225 BGII        | 4.53                               | 3.18 | 1.48 | 7.69  | <b>4.22</b> | BETL   |
| NBC 21 BGII          | 2.20                               | 3.38 | 1.94 | 6.78  | <b>3.58</b> | BETL   |
| DC 5105 BGII         | 4.57                               | 3.45 | 1.70 | 8.60  | <b>4.58</b> | BETL   |
| KCH 9222 BGII        | 2.87                               | 3.92 | 2.49 | 7.18  | <b>4.11</b> | BETL   |
| C 9339 BGII          | 3.73                               | 3.52 | 1.17 | 6.38  | <b>3.70</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 2.90                               | 2.25 | 1.65 | 20.89 | <b>6.92</b> | BETL   |
| KCH 9223 BGII        | 4.90                               | 3.25 | 1.39 | 8.62  | <b>4.54</b> | BETL   |
| SS 459 BG II         | 3.83                               | 3.32 | 1.33 | 7.36  | <b>3.96</b> | BETL   |
| VSCH 372 BGII        | 3.83                               | 4.45 | 0.85 | 6.98  | <b>4.03</b> | BETL   |
| US 717 BGII          | 2.33                               | 2.85 | 0.70 | 7.56  | <b>3.36</b> | BETL   |
| RCH 1016 BGII        | 2.53                               | 4.12 | 1.51 | 8.60  | <b>4.19</b> | BETL   |
| RCH 1026 BG II       | 2.67                               | 3.30 | 1.20 | 7.24  | <b>3.60</b> | BETL   |
| DLCH-9 Bt II         | 3.17                               | 3.58 | 1.20 | 7.36  | <b>3.83</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 4.33                               | 2.98 | 0.62 | 7.60  | <b>3.88</b> | BETL   |
| 25D181 BGII          | 4.73                               | 2.52 | 1.04 | 7.38  | <b>3.92</b> | BETL   |

**GU- Lam Guntur , RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced H X H trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.03                                 | 0.09 | 0.38 | 1.67 | <b>0.54</b> | BETL   |
| Core 102             | 0.00                                 | 0.11 | 0.41 | 1.53 | <b>0.51</b> | BETL   |
| KCH 9225 BGII        | 0.13                                 | 0.22 | 0.24 | 1.64 | <b>0.56</b> | BETL   |
| NBC 21 BGII          | 0.03                                 | 0.00 | 0.21 | 1.78 | <b>0.51</b> | BETL   |
| DC 5105 BGII         | 0.00                                 | 0.18 | 0.51 | 1.42 | <b>0.53</b> | BETL   |
| KCH 9222 BGII        | 0.07                                 | 0.00 | 0.84 | 1.71 | <b>0.65</b> | BETL   |
| C 9339 BGII          | 0.03                                 | 0.04 | 1.02 | 1.60 | <b>0.67</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                 | 0.04 | 1.11 | 1.87 | <b>0.76</b> | BETL   |
| KCH 9223 BGII        | 0.13                                 | 0.02 | 0.18 | 2.38 | <b>0.68</b> | BETL   |
| SS 459 BG II         | 0.03                                 | 0.12 | 0.39 | 1.93 | <b>0.62</b> | BETL   |
| VSCH 372 BGII        | 0.00                                 | 0.04 | 0.91 | 1.91 | <b>0.72</b> | BETL   |
| US 717 BGII          | 0.07                                 | 0.00 | 0.81 | 2.02 | <b>0.72</b> | BETL   |
| RCH 1016 BGII        | 0.03                                 | 0.31 | 0.65 | 1.60 | <b>0.65</b> | BETL   |
| RCH 1026 BG II       | 0.00                                 | 0.09 | 0.76 | 1.27 | <b>0.53</b> | BETL   |
| DLCH-9 Bt II         | 0.03                                 | 0.02 | 0.40 | 2.33 | <b>0.70</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.17                                 | 0.16 | 1.02 | 2.18 | <b>0.88</b> | BETL   |
| 25D181 BGII          | 0.03                                 | 0.02 | 0.61 | 1.69 | <b>0.59</b> | BETL   |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



Table: Advanced H X H trial in South Zone under Protected Conditions – Natural Enemies

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.10                        | 0.45 | 0.18 | 0.09 | <b>0.20</b> |        |
| Core 102             | 0.17                        | 0.45 | 0.04 | 0.04 | <b>0.18</b> |        |
| KCH 9225 BGII        | 0.10                        | 0.56 | 0.09 | 0.02 | <b>0.19</b> |        |
| NBC 21 BGII          | 0.30                        | 1.57 | 0.04 | 0.07 | <b>0.49</b> |        |
| DC 5105 BGII         | 0.00                        | 1.34 | 0.09 | 0.02 | <b>0.36</b> |        |
| KCH 9222 BGII        | 0.07                        | 1.12 | 0.11 | 0.09 | <b>0.35</b> |        |
| C 9339 BGII          | 0.00                        | 0.67 | 0.09 | 0.04 | <b>0.20</b> |        |
| VSCH 369 BGII (ZC 2) | 0.17                        | 0.45 | 0.04 | 0.11 | <b>0.19</b> |        |
| KCH 9223 BGII        | 0.13                        | 0.78 | 0.11 | 0.00 | <b>0.26</b> |        |
| SS 459 BG II         | 0.03                        | 1.01 | 0.07 | 0.16 | <b>0.32</b> |        |
| VSCH 372 BGII        | 0.00                        | 0.67 | 0.02 | 0.02 | <b>0.18</b> |        |
| US 717 BGII          | 0.10                        | 1.12 | 0.09 | 0.11 | <b>0.35</b> |        |
| RCH 1016 BGII        | 0.17                        | 0.90 | 0.11 | 0.07 | <b>0.31</b> |        |
| RCH 1026 BG II       | 0.13                        | 1.12 | 0.09 | 0.16 | <b>0.37</b> |        |
| DLCH-9 Bt II         | 0.00                        | 1.23 | 0.07 | 0.13 | <b>0.36</b> |        |
| NBC 1821 BGII (ZC 1) | 0.07                        | 1.34 | 0.09 | 0.07 | <b>0.39</b> |        |
| 25D181 BGII          | 0.17                        | 1.46 | 0.07 | 0.07 | <b>0.44</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H trial in South Zone under Protected Conditions –  
*Helicoverpa armigera*

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 102             | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9225 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 21 BGII          | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DC 5105 BGII         | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9222 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C 9339 BGII          | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9223 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| SS 459 BG II         | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 372 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 717 BGII          | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1016 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1026 BG II       | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DLCH-9 Bt II         | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| 25D181 BGII          | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Protected Conditions – Spotted/ Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |      | Remark |
|----------------------|----------------------------------|------|------|------|------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean |        |
| KCH 9221 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Core 102             | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9225 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NBC 21 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| DC 5105 BGII         | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9222 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| C 9339 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| KCH 9223 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| SS 459 BG II         | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 372 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| US 717 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RCH 1016 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RCH 1026 BG II       | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| DLCH-9 Bt II         | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| 25D181 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |      | Remark |
|----------------------|-----------------------------------------|------|------|------|------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean |        |
| KCH 9221 BGII        | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| Core 102             | 0.10                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| KCH 9225 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NBC 21 BGII          | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| DC 5105 BGII         | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| KCH 9222 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| C 9339 BGII          | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| VSCH 369 BGII (ZC 2) | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| KCH 9223 BGII        | 0.17                                    | 0.00 | 0.00 | 0.00 | 0.04 | BETL   |
| SS 459 BG II         | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| VSCH 372 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| US 717 BGII          | 0.10                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| RCH 1016 BGII        | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| RCH 1026 BG II       | 0.20                                    | 0.00 | 0.00 | 0.00 | 0.05 | BETL   |
| DLCH-9 Bt II         | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NBC 1821 BGII (ZC 1) | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| 25D181 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark |
|----------------------|---------------------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.67                                                    | 0.34 | 0.33 | 1.11 | <b>0.61</b> | BETL   |
| Core 102             | 0.83                                                    | 0.34 | 0.56 | 1.67 | <b>0.85</b> | BETL   |
| KCH 9225 BGII        | 1.00                                                    | 0.25 | 0.22 | 2.27 | <b>0.94</b> | BETL   |
| NBC 21 BGII          | 0.50                                                    | 0.34 | 0.11 | 1.89 | <b>0.71</b> | BETL   |
| DC 5105 BGII         | 0.67                                                    | 0.42 | 0.44 | 1.67 | <b>0.80</b> | BETL   |
| KCH 9222 BGII        | 0.33                                                    | 0.34 | 0.00 | 2.11 | <b>0.70</b> | BETL   |
| C 9339 BGII          | 0.67                                                    | 0.17 | 0.78 | 1.78 | <b>0.85</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.67                                                    | 0.17 | 0.44 | 2.33 | <b>0.90</b> | BETL   |
| KCH 9223 BGII        | 0.83                                                    | 0.17 | 0.44 | 2.00 | <b>0.86</b> | BETL   |
| SS 459 BG II         | 0.83                                                    | 0.42 | 0.44 | 1.44 | <b>0.79</b> | BETL   |
| VSCH 372 BGII        | 1.00                                                    | 0.34 | 0.00 | 1.78 | <b>0.78</b> | BETL   |
| US 717 BGII          | 0.83                                                    | 0.25 | 0.33 | 1.78 | <b>0.80</b> | BETL   |
| RCH 1016 BGII        | 0.67                                                    | 0.17 | 0.56 | 1.67 | <b>0.76</b> | BETL   |
| RCH 1026 BG II       | 0.83                                                    | 0.42 | 0.11 | 1.56 | <b>0.73</b> | BETL   |
| DLCH-9 Bt II         | 0.67                                                    | 0.84 | 0.11 | 1.78 | <b>0.85</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.83                                                    | 1.27 | 0.89 | 2.00 | <b>1.25</b> | BETL   |
| 25D181 BGII          | 0.67                                                    | 1.68 | 0.22 | 1.67 | <b>1.06</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 102             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9225 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 21 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DC 5105 BGII         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9222 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C 9339 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9223 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| SS 459 BG II         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 372 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 717 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1016 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1026 BG II       | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DLCH-9 Bt II         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| 25D181 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%)/ 10 bolls destructive sampling |      |       |       |              | Remark      |
|----------------------|------------------------------------------------------|------|-------|-------|--------------|-------------|
|                      | GU                                                   | RA   | CBE   | WR    | Mean         |             |
| KCH 9221 BGII        | 8.33                                                 | 2.21 | 10.00 | 8.89  | <b>7.36</b>  | <b>BETL</b> |
| Core 102             | 10.00                                                | 2.85 | 11.67 | 11.11 | <b>8.91</b>  | <b>BETL</b> |
| KCH 9225 BGII        | 8.33                                                 | 1.64 | 16.67 | 14.44 | <b>10.27</b> | <b>AETL</b> |
| NBC 21 BGII          | 6.67                                                 | 1.51 | 13.33 | 13.33 | <b>8.71</b>  | <b>BETL</b> |
| DC 5105 BGII         | 6.67                                                 | 1.72 | 15.00 | 14.44 | <b>9.46</b>  | <b>BETL</b> |
| KCH 9222 BGII        | 5.00                                                 | 1.51 | 1.67  | 15.56 | <b>5.93</b>  | <b>BETL</b> |
| C 9339 BGII          | 8.33                                                 | 1.81 | 23.33 | 12.22 | <b>11.42</b> | <b>AETL</b> |
| VSCH 369 BGII (ZC 2) | 3.33                                                 | 1.64 | 13.33 | 12.22 | <b>7.63</b>  | <b>BETL</b> |
| KCH 9223 BGII        | 6.67                                                 | 2.18 | 11.67 | 11.11 | <b>7.91</b>  | <b>BETL</b> |
| SS 459 BG II         | 8.33                                                 | 1.68 | 6.67  | 8.89  | <b>6.39</b>  | <b>BETL</b> |
| VSCH 372 BGII        | 8.33                                                 | 2.27 | 3.33  | 11.11 | <b>6.26</b>  | <b>BETL</b> |
| US 717 BGII          | 6.67                                                 | 1.89 | 15.00 | 11.11 | <b>8.67</b>  | <b>BETL</b> |
| RCH 1016 BGII        | 8.33                                                 | 1.64 | 18.33 | 12.22 | <b>10.13</b> | <b>AETL</b> |
| RCH 1026 BG II       | 8.33                                                 | 2.02 | 10.00 | 10.00 | <b>7.59</b>  | <b>BETL</b> |
| DLCH-9 Bt II         | 6.67                                                 | 2.39 | 23.33 | 14.44 | <b>11.71</b> | <b>AETL</b> |
| NBC 1821 BGII (ZC 1) | 6.67                                                 | 2.86 | 11.67 | 11.11 | <b>8.08</b>  | <b>BETL</b> |
| 25D181 BGII          | 6.67                                                 | 3.49 | 10.00 | 12.22 | <b>8.09</b>  | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage(%) |      |       |       |              | Remark |
|----------------------|---------------------|------|-------|-------|--------------|--------|
|                      | GU                  | RA   | CBE   | WR    | Mean         |        |
| KCH 9221 BGII        | 5.62                | 3.87 | 5.41  | 13.33 | <b>7.06</b>  |        |
| Core 102             | 7.31                | 4.36 | 9.03  | 21.67 | <b>10.59</b> |        |
| KCH 9225 BGII        | 8.55                | 4.21 | 8.96  | 18.33 | <b>10.01</b> |        |
| NBC 21 BGII          | 7.39                | 4.04 | 6.32  | 23.33 | <b>10.27</b> |        |
| DC 5105 BGII         | 6.28                | 4.21 | 9.84  | 15.00 | <b>8.83</b>  |        |
| KCH 9222 BGII        | 8.14                | 3.70 | 11.09 | 18.33 | <b>10.32</b> |        |
| C 9339 BGII          | 6.08                | 4.55 | 10.60 | 31.67 | <b>13.22</b> |        |
| VSCH 369 BGII (ZC 2) | 5.08                | 4.04 | 9.11  | 28.33 | <b>11.64</b> |        |
| KCH 9223 BGII        | 7.62                | 4.89 | 10.19 | 21.67 | <b>11.09</b> |        |
| SS 459 BG II         | 5.33                | 4.04 | 8.28  | 25.00 | <b>10.66</b> |        |
| VSCH 372 BGII        | 9.26                | 3.98 | 4.95  | 25.00 | <b>10.80</b> |        |
| US 717 BGII          | 5.79                | 4.69 | 10.22 | 25.00 | <b>11.42</b> |        |
| RCH 1016 BGII        | 8.19                | 3.70 | 9.33  | 31.67 | <b>13.22</b> |        |
| RCH 1026 BG II       | 6.53                | 4.66 | 6.93  | 30.00 | <b>12.03</b> |        |
| DLCH-9 Bt II         | 7.00                | 3.99 | 7.36  | 28.33 | <b>11.67</b> |        |
| NBC 1821 BGII (ZC 1) | 6.50                | 4.79 | 6.93  | 11.67 | <b>7.47</b>  |        |
| 25D181 BGII          | 5.83                | 4.69 | 14.02 | 26.67 | <b>12.80</b> |        |

GU- Lam Guntur ,RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |      |       |             | Remark |
|----------------------|-------------------|------|------|-------|-------------|--------|
|                      | GU                | RA   | CBE  | WR    | Mean        |        |
| KCH 9221 BGII        | 2.42              | 2.82 | 2.79 | 8.12  | <b>4.04</b> |        |
| Core 102             | 3.05              | 3.31 | 3.90 | 6.24  | <b>4.13</b> |        |
| KCH 9225 BGII        | 2.96              | 3.16 | 4.49 | 6.36  | <b>4.24</b> |        |
| NBC 21 BGII          | 3.51              | 2.99 | 3.07 | 8.14  | <b>4.43</b> |        |
| DC 5105 BGII         | 2.45              | 3.16 | 4.43 | 7.62  | <b>4.41</b> |        |
| KCH 9222 BGII        | 3.00              | 2.65 | 6.02 | 6.97  | <b>4.66</b> |        |
| C 9339 BGII          | 2.47              | 3.50 | 6.02 | 11.11 | <b>5.77</b> |        |
| VSCH 369 BGII (ZC 2) | 2.09              | 2.99 | 5.15 | 7.41  | <b>4.41</b> |        |
| KCH 9223 BGII        | 3.96              | 3.21 | 4.74 | 5.81  | <b>4.43</b> |        |
| SS 459 BG II         | 2.55              | 2.36 | 4.19 | 7.07  | <b>4.04</b> |        |
| VSCH 372 BGII        | 4.02              | 2.30 | 1.65 | 8.75  | <b>4.18</b> |        |
| US 717 BGII          | 2.88              | 3.01 | 4.45 | 8.89  | <b>4.81</b> |        |
| RCH 1016 BGII        | 2.36              | 2.02 | 5.08 | 5.99  | <b>3.86</b> |        |
| RCH 1026 BG II       | 2.84              | 2.98 | 3.42 | 6.61  | <b>3.96</b> |        |
| DLCH-9 Bt II         | 3.04              | 2.31 | 3.34 | 6.27  | <b>3.74</b> |        |
| NBC 1821 BGII (ZC 1) | 3.82              | 3.11 | 3.10 | 4.10  | <b>3.53</b> |        |
| 25D181 BGII          | 3.00              | 3.01 | 5.84 | 10.28 | <b>5.53</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests**

| Name of Entry        | No. of Sprays for Insect-Pests |      |      |      |             | Remark |
|----------------------|--------------------------------|------|------|------|-------------|--------|
|                      | GU                             | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Core 102             | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH 9225 BGII        | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| NBC 21 BGII          | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| DC 5105 BGII         | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH 9222 BGII        | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| C 9339 BGII          | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| VSCH 369 BGII (ZC 2) | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| KCH 9223 BGII        | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| SS 459 BG II         | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| VSCH 372 BGII        | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| US 717 BGII          | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RCH 1016 BGII        | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RCH 1026 BG II       | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| DLCH-9 Bt II         | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| NBC 1821 BGII (ZC 1) | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| 25D181 BGII          | 5.00                           | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





## Reaction to Diseases

**Table 3 (a) Advanced Evaluation Trial –II of Intra-hirsutum Hybrids – Irrigated (AET-II Hybrids IRR) under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                               |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                      |    | GM   |    | Rust |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 9      | 55061   | KCH 9221 BGII        | 28.2                                                      | MR | 13.6 | R  | 25.9 | MR | 3.5                 | R  | 0.0      | DF | 0.0 | DF | 0.5 | R  | 5.7  | R  |
| 16     | 55062   | Core 102             | 26.0                                                      | MR | 28.8 | MR | 30.0 | MR | 6.0                 | R  | 0.0      | DF | 0.0 | DF | 0.9 | R  | 5.8  | R  |
| 1      | 55063   | KCH 9225 BGII        | 3.5                                                       | R  | 26.5 | MR | 26.8 | MR | 6.7                 | R  | 0.0      | DF | 0.0 | DF | 0.9 | R  | 3.8  | R  |
| 7      | 55064   | NBC 21 BGII          | 4.8                                                       | R  | 26.5 | MR | 26.5 | MR | 5.5                 | R  | 0.0      | DF | 0.0 | DF | 0.4 | R  | 6.3  | R  |
| 17     | 55065   | DC 5105 BGII         | 25.8                                                      | MR | 8.3  | R  | 29.2 | MR | 5.5                 | R  | 0.0      | DF | 0.0 | DF | 1.6 | R  | 6.2  | R  |
| 4      | 55066   | KCH 9222 BGII        | 26.5                                                      | MR | 21.8 | R  | 13.5 | R  | 4.8                 | R  | 0.0      | DF | 0.0 | DF | 0.9 | R  | 5.7  | R  |
| 11     | 55067   | C 9339 BGII          | 12.8                                                      | R  | 25.5 | MR | 26.3 | MR | 6.8                 | R  | 0.0      | DF | 0.0 | DF | 2.0 | R  | 9.0  | R  |
| 15     | 55068   | VSCH 369 BGII (ZC 2) | 26.2                                                      | MR | 19.5 | R  | 11.0 | R  | 6.5                 | R  | 0.0      | DF | 0.0 | DF | 1.3 | R  | 7.0  | R  |
| 2      | 55069   | KCH 9223 BGII        | 25.7                                                      | MR | 30.5 | MR | 30.5 | MR | 7.3                 | R  | 0.0      | DF | 0.0 | DF | 2.3 | R  | 7.0  | R  |
| 14     | 55070   | SS 459 BG II         | 27.0                                                      | MR | 21.0 | R  | 26.0 | MR | 7.0                 | R  | 0.0      | DF | 0.0 | DF | 1.2 | R  | 7.5  | R  |
| 6      | 55071   | VSCH 372 BGII        | 22.7                                                      | R  | 19.2 | R  | 26.5 | MR | 7.5                 | R  | 0.0      | DF | 0.0 | DF | 1.5 | R  | 8.8  | R  |
| 13     | 55072   | US 717 BGII          | 21.5                                                      | R  | 21.5 | R  | 30.3 | MR | 5.8                 | R  | 0.0      | DF | 0.0 | DF | 1.2 | R  | 7.2  | R  |
| 3      | 55073   | RCH 1016 BGII        | 24.3                                                      | R  | 20.7 | R  | 11.5 | R  | 6.0                 | R  | 0.0      | DF | 0.0 | DF | 1.7 | R  | 7.3  | R  |
| 10     | 55074   | RCH 1026 BG II       | 19.0                                                      | R  | 20.5 | R  | 28.5 | MR | 6.2                 | R  | 0.0      | DF | 0.0 | DF | 1.3 | R  | 8.2  | R  |
| 5      | 55075   | DLCH-9 Bt II         | 11.8                                                      | R  | 14.5 | R  | 10.8 | R  | 7.0                 | R  | 0.0      | DF | 0.0 | DF | 0.9 | R  | 7.0  | R  |
| 8      | 55076   | NBC 1821 BGII (ZC 1) | 27.5                                                      | MR | 26.3 | MR | 27.3 | MR | 5.8                 | R  | 0.0      | DF | 0.0 | DF | 1.7 | R  | 6.5  | R  |
| 12     | 55077   | 25D181 BGII          | 29.5                                                      | MR | 27.0 | MR | 30.3 | MR | 5.7                 | R  | 0.0      | DF | 0.0 | DF | 0.8 | R  | 6.7  | R  |

**Table 3 (b) Advanced Evaluation Trial –II of Intra-hirsutum Hybrids – Irrigated (AET-II Hybrids IRR) under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|
|        |         |                      | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    |
|        |         |                      | ALS                                                       |    | CoLS |    | GM   |    | Rust |    | TSV |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 9      | 55061   | KCH 9221 BGII        | 3.2                                                       | R  | 3.8  | R  | 12.5 | R  | 25.8 | MR | 2.4 | R  |
| 16     | 55062   | Core 102             | 4.0                                                       | R  | 5.5  | R  | 12.3 | R  | 26.8 | MR | 1.1 | R  |
| 1      | 55063   | KCH 9225 BGII        | 2.5                                                       | R  | 3.5  | R  | 11.8 | R  | 27.7 | MR | 0.2 | R  |
| 7      | 55064   | NBC 21 BGII          | 1.7                                                       | R  | 2.5  | R  | 10.8 | R  | 27.2 | MR | 0.7 | R  |
| 17     | 55065   | DC 5105 BGII         | 1.0                                                       | R  | 1.5  | R  | 7.3  | R  | 16.2 | R  | 1.9 | R  |
| 4      | 55066   | KCH 9222 BGII        | 2.3                                                       | R  | 2.8  | R  | 11.7 | R  | 26.2 | MR | 0.2 | R  |
| 11     | 55067   | C 9339 BGII          | 3.3                                                       | R  | 4.8  | R  | 12.7 | R  | 27.0 | MR | 0.6 | R  |
| 15     | 55068   | VSCH 369 BGII (ZC 2) | 2.5                                                       | R  | 4.5  | R  | 13.3 | R  | 27.2 | MR | 3.4 | R  |
| 2      | 55069   | KCH 9223 BGII        | 3.3                                                       | R  | 5.2  | R  | 13.5 | R  | 29.2 | MR | 1.1 | R  |
| 14     | 55070   | SS 459 BG II         | 3.3                                                       | R  | 3.8  | R  | 12.7 | R  | 27.5 | MR | 2.3 | R  |
| 6      | 55071   | VSCH 372 BGII        | 4.5                                                       | R  | 6.7  | R  | 12.2 | R  | 27.0 | MR | 2.4 | R  |
| 13     | 55072   | US 717 BGII          | 3.2                                                       | R  | 3.8  | R  | 13.3 | R  | 28.3 | MR | 2.4 | R  |
| 3      | 55073   | RCH 1016 BGII        | 4.2                                                       | R  | 4.5  | R  | 12.0 | R  | 27.2 | MR | 0.4 | R  |
| 10     | 55074   | RCH 1026 BG II       | 4.7                                                       | R  | 5.8  | R  | 13.0 | R  | 28.0 | MR | 1.1 | R  |
| 5      | 55075   | DLCH-9 Bt II         | 3.8                                                       | R  | 4.3  | R  | 11.8 | R  | 28.0 | MR | 2.5 | R  |
| 8      | 55076   | NBC 1821 BGII (ZC 1) | 3.2                                                       | R  | 3.7  | R  | 12.0 | R  | 27.2 | MR | 4.6 | R  |
| 12     | 55077   | 25D181 BGII          | 2.7                                                       | R  | 3.5  | R  | 12.8 | R  | 28.2 | MR | 1.9 | R  |

**Evaluation under Unprotected Condition for Insect pests**  
**Reaction to Insect Pest**  
 (

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |       |       |             | Remark      |
|----------------------|-----------------------------------|------|-------|-------|-------------|-------------|
|                      | GU                                | RA   | CBE   | WR    | Mean        |             |
| KCH 9221 BGII        | 5.13                              | 2.11 | 9.09  | 9.07  | <b>6.35</b> | <b>BETL</b> |
| Core 102             | 7.23                              | 4.50 | 9.80  | 7.47  | <b>7.25</b> | <b>BETL</b> |
| KCH 9225 BGII        | 4.47                              | 3.08 | 9.30  | 7.60  | <b>6.11</b> | <b>BETL</b> |
| NBC 21 BGII          | 6.13                              | 2.16 | 8.59  | 8.87  | <b>6.44</b> | <b>BETL</b> |
| DC 5105 BGII         | 5.70                              | 2.49 | 8.76  | 7.87  | <b>6.20</b> | <b>BETL</b> |
| KCH 9222 BGII        | 4.40                              | 4.16 | 6.89  | 9.00  | <b>6.11</b> | <b>BETL</b> |
| C 9339 BGII          | 5.13                              | 2.55 | 10.37 | 9.47  | <b>6.88</b> | <b>BETL</b> |
| VSCH 369 BGII (ZC 2) | 6.63                              | 2.99 | 8.20  | 8.07  | <b>6.47</b> | <b>BETL</b> |
| KCH 9223 BGII        | 5.97                              | 5.19 | 6.14  | 8.47  | <b>6.44</b> | <b>BETL</b> |
| SS 459 BG II         | 5.73                              | 3.35 | 6.92  | 8.53  | <b>6.13</b> | <b>BETL</b> |
| VSCH 372 BGII        | 4.83                              | 2.05 | 5.97  | 10.13 | <b>5.75</b> | <b>BETL</b> |
| US 717 BGII          | 5.60                              | 2.65 | 7.03  | 7.20  | <b>5.62</b> | <b>BETL</b> |
| RCH 1016 BGII        | 4.33                              | 2.97 | 8.29  | 7.60  | <b>5.80</b> | <b>BETL</b> |
| RCH 1026 BG II       | 7.27                              | 3.99 | 10.66 | 8.20  | <b>7.53</b> | <b>BETL</b> |
| DLCH-9 Bt II         | 6.03                              | 2.29 | 8.72  | 7.47  | <b>6.13</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 5.53                              | 2.50 | 8.67  | 9.07  | <b>6.44</b> | <b>BETL</b> |
| 25D181 BGII          | 5.23                              | 3.29 | 7.56  | 8.53  | <b>6.15</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: H X H trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 8.37                                   | 3.92 | 3.93 | 3.67 | <b>4.97</b> | BETL   |
| Core 102             | 9.23                                   | 7.38 | 3.17 | 3.40 | <b>5.80</b> | BETL   |
| KCH 9225 BGII        | 7.83                                   | 4.96 | 3.77 | 3.53 | <b>5.02</b> | BETL   |
| NBC 21 BGII          | 8.03                                   | 5.32 | 2.93 | 3.47 | <b>4.94</b> | BETL   |
| DC 5105 BGII         | 10.20                                  | 5.11 | 6.57 | 4.00 | <b>6.47</b> | AETL   |
| KCH 9222 BGII        | 8.40                                   | 7.04 | 5.13 | 4.33 | <b>6.23</b> | AETL   |
| C 9339 BGII          | 7.63                                   | 3.34 | 2.77 | 3.53 | <b>4.32</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 10.63                                  | 3.57 | 3.63 | 3.60 | <b>5.36</b> | BETL   |
| KCH 9223 BGII        | 9.23                                   | 4.03 | 3.90 | 3.60 | <b>5.19</b> | BETL   |
| SS 459 BG II         | 7.83                                   | 7.74 | 4.67 | 3.73 | <b>5.99</b> | BETL   |
| VSCH 372 BGII        | 8.23                                   | 3.27 | 3.93 | 4.33 | <b>4.94</b> | BETL   |
| US 717 BGII          | 8.47                                   | 3.24 | 4.03 | 3.73 | <b>4.87</b> | BETL   |
| RCH 1016 BGII        | 7.57                                   | 3.06 | 3.27 | 3.33 | <b>4.31</b> | BETL   |
| RCH 1026 BG II       | 9.50                                   | 3.44 | 3.80 | 3.20 | <b>4.99</b> | BETL   |
| DLCH-9 Bt II         | 7.83                                   | 4.51 | 4.20 | 3.27 | <b>4.95</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 8.97                                   | 4.25 | 7.90 | 4.87 | <b>6.49</b> | AETL   |
| 25D181 BGII          | 9.27                                   | 4.00 | 3.77 | 3.93 | <b>5.24</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |     |      | Remark |
|----------------------|-----------|----|-----|-----|------|--------|
|                      | GU        | RA | CBE | WR  | Mean |        |
| KCH 9221 BGII        | II        | II | I   | III | II   |        |
| Core 102             | IV        | II | I   | II  | II   |        |
| KCH 9225 BGII        | II        | II | I   | II  | II   |        |
| NBC 21 BGII          | I         | II | I   | I   | I    |        |
| DC 5105 BGII         | III       | II | I   | II  | II   |        |
| KCH 9222 BGII        | II        | II | I   | II  | II   |        |
| C 9339 BGII          | II        | II | I   | III | II   |        |
| VSCH 369 BGII (ZC 2) | IV        | II | I   | II  | II   |        |
| KCH 9223 BGII        | III       | II | I   | II  | II   |        |
| SS 459 BG II         | III       | II | I   | II  | II   |        |
| VSCH 372 BGII        | III       | II | I   | II  | II   |        |
| US 717 BGII          | II        | II | I   | II  | II   |        |
| RCH 1016 BGII        | I         | II | I   | I   | I    |        |
| RCH 1026 BG II       | II        | II | I   | I   | II   |        |
| DLCH-9 Bt II         | III       | II | I   | II  | II   |        |
| NBC 1821 BGII (ZC 1) | IV        | II | I   | II  | II   |        |
| 25D181 BGII          | III       | II | I   | II  | II   |        |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark |
|----------------------|------------------------------------|------|------|-------|-------------|--------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |        |
| KCH 9221 BGII        | 7.80                               | 7.58 | 2.08 | 13.07 | <b>7.63</b> | BETL   |
| Core 102             | 8.70                               | 4.58 | 2.52 | 13.47 | <b>7.32</b> | BETL   |
| KCH 9225 BGII        | 6.60                               | 5.79 | 2.90 | 11.40 | <b>6.67</b> | BETL   |
| NBC 21 BGII          | 7.47                               | 6.37 | 3.44 | 13.80 | <b>7.77</b> | BETL   |
| DC 5105 BGII         | 8.13                               | 7.32 | 2.94 | 12.27 | <b>7.66</b> | BETL   |
| KCH 9222 BGII        | 7.27                               | 4.97 | 1.67 | 13.27 | <b>6.79</b> | BETL   |
| C 9339 BGII          | 8.20                               | 8.35 | 1.77 | 12.73 | <b>7.76</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 7.43                               | 6.92 | 4.20 | 10.27 | <b>7.21</b> | BETL   |
| KCH 9223 BGII        | 9.53                               | 5.86 | 2.91 | 9.53  | <b>6.96</b> | BETL   |
| SS 459 BG II         | 7.93                               | 6.33 | 2.63 | 9.27  | <b>6.54</b> | BETL   |
| VSCH 372 BGII        | 8.23                               | 7.83 | 2.97 | 10.67 | <b>7.42</b> | BETL   |
| US 717 BGII          | 8.00                               | 6.46 | 3.28 | 11.60 | <b>7.33</b> | BETL   |
| RCH 1016 BGII        | 6.90                               | 5.20 | 2.02 | 14.53 | <b>7.16</b> | BETL   |
| RCH 1026 BG II       | 8.23                               | 3.79 | 2.77 | 13.60 | <b>7.10</b> | BETL   |
| DLCH-9 Bt II         | 7.53                               | 6.57 | 3.08 | 10.53 | <b>6.93</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 7.90                               | 7.01 | 3.03 | 10.13 | <b>7.02</b> | BETL   |
| 25D181 BGII          | 6.87                               | 8.06 | 4.00 | 9.93  | <b>7.21</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.83                                 | 1.43 | 1.63 | 0.80 | <b>1.17</b> | BETL   |
| Core 102             | 1.20                                 | 0.93 | 1.97 | 0.87 | <b>1.24</b> | BETL   |
| KCH 9225 BGII        | 0.43                                 | 1.17 | 1.30 | 0.60 | <b>0.88</b> | BETL   |
| NBC 21 BGII          | 0.67                                 | 0.90 | 1.97 | 0.93 | <b>1.12</b> | BETL   |
| DC 5105 BGII         | 1.10                                 | 0.95 | 1.00 | 1.20 | <b>1.06</b> | BETL   |
| KCH 9222 BGII        | 0.80                                 | 0.66 | 1.73 | 1.60 | <b>1.20</b> | BETL   |
| C 9339 BGII          | 0.23                                 | 1.32 | 1.57 | 1.27 | <b>1.10</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 1.10                                 | 1.65 | 1.23 | 0.80 | <b>1.20</b> | BETL   |
| KCH 9223 BGII        | 0.20                                 | 1.94 | 1.53 | 1.07 | <b>1.19</b> | BETL   |
| SS 459 BG II         | 1.50                                 | 0.73 | 1.07 | 1.07 | <b>1.09</b> | BETL   |
| VSCH 372 BGII        | 0.30                                 | 0.50 | 1.37 | 0.27 | <b>0.61</b> | BETL   |
| US 717 BGII          | 1.26                                 | 1.10 | 1.47 | 0.73 | <b>1.14</b> | BETL   |
| RCH 1016 BGII        | 0.50                                 | 1.31 | 1.47 | 1.13 | <b>1.10</b> | BETL   |
| RCH 1026 BG II       | 0.73                                 | 1.39 | 1.07 | 0.80 | <b>1.00</b> | BETL   |
| DLCH-9 Bt II         | 1.40                                 | 1.53 | 1.30 | 0.73 | <b>1.24</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 1.20                                 | 0.97 | 1.60 | 1.07 | <b>1.21</b> | BETL   |
| 25D181 BGII          | 0.33                                 | 0.98 | 1.73 | 0.73 | <b>0.95</b> | BETL   |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.23                        | 1.90 | 0.13 | 0.07 | <b>0.58</b> |        |
| Core 102             | 0.10                        | 0.90 | 0.13 | 0.13 | <b>0.32</b> |        |
| KCH 9225 BGII        | 0.17                        | 0.78 | 0.00 | 0.40 | <b>0.34</b> |        |
| NBC 21 BGII          | 0.33                        | 1.22 | 0.13 | 0.07 | <b>0.44</b> |        |
| DC 5105 BGII         | 0.07                        | 0.68 | 0.00 | 0.13 | <b>0.22</b> |        |
| KCH 9222 BGII        | 0.42                        | 1.00 | 0.27 | 0.20 | <b>0.47</b> |        |
| C 9339 BGII          | 0.10                        | 1.90 | 0.07 | 0.13 | <b>0.55</b> |        |
| VSCH 369 BGII (ZC 2) | 0.20                        | 2.07 | 0.07 | 0.27 | <b>0.65</b> |        |
| KCH 9223 BGII        | 0.23                        | 2.12 | 0.07 | 0.07 | <b>0.62</b> |        |
| SS 459 BG II         | 0.10                        | 0.67 | 0.20 | 0.00 | <b>0.24</b> |        |
| VSCH 372 BGII        | 0.37                        | 1.22 | 0.07 | 0.07 | <b>0.43</b> |        |
| US 717 BGII          | 0.23                        | 1.79 | 0.00 | 0.27 | <b>0.57</b> |        |
| RCH 1016 BGII        | 0.30                        | 0.89 | 0.07 | 0.20 | <b>0.36</b> |        |
| RCH 1026 BG II       | 0.23                        | 1.40 | 0.00 | 0.27 | <b>0.47</b> |        |
| DLCH-9 Bt II         | 0.40                        | 0.60 | 0.00 | 0.07 | <b>0.27</b> |        |
| NBC 1821 BGII (ZC 1) | 0.13                        | 2.40 | 0.00 | 0.27 | <b>0.70</b> |        |
| 25D181 BGII          | 0.23                        | 1.79 | 0.00 | 0.13 | <b>0.54</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions –*Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| Core 102             | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| KCH 9225 BGII        | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| NBC 21 BGII          | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| DC 5105 BGII         | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| KCH 9222 BGII        | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| C 9339 BGII          | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| KCH 9223 BGII        | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| SS 459 BG II         | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| VSCH 372 BGII        | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| US 717 BGII          | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| RCH 1016 BGII        | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| RCH 1026 BG II       | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| DLCH-9 Bt II         | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| 25D181 BGII          | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Spotted/ Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|----------------------|----------------------------------|------|------|------|-------------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 102             | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9225 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 21 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DC 5105 BGII         | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9222 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C 9339 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9223 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| SS 459 BG II         | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 372 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 717 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1016 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1026 BG II       | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DLCH-9 Bt II         | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| 25D181 BGII          | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.20                                    | 0.44 | 0.00 | 0.00 | <b>0.16</b> | BETL   |
| Core 102             | 0.43                                    | 0.22 | 0.00 | 0.00 | <b>0.16</b> | BETL   |
| KCH 9225 BGII        | 0.30                                    | 0.33 | 0.00 | 0.00 | <b>0.16</b> | BETL   |
| NBC 21 BGII          | 0.70                                    | 0.56 | 0.00 | 0.00 | <b>0.31</b> | BETL   |
| DC 5105 BGII         | 0.53                                    | 0.89 | 0.00 | 0.00 | <b>0.36</b> | BETL   |
| KCH 9222 BGII        | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| C 9339 BGII          | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.57                                    | 0.56 | 0.00 | 0.00 | <b>0.28</b> | BETL   |
| KCH 9223 BGII        | 0.13                                    | 0.67 | 0.00 | 0.00 | <b>0.20</b> | BETL   |
| SS 459 BG II         | 0.53                                    | 0.56 | 0.00 | 0.00 | <b>0.27</b> | BETL   |
| VSCH 372 BGII        | 0.50                                    | 0.56 | 0.00 | 0.00 | <b>0.26</b> | BETL   |
| US 717 BGII          | 0.60                                    | 0.56 | 0.00 | 0.00 | <b>0.29</b> | BETL   |
| RCH 1016 BGII        | 0.60                                    | 0.78 | 0.00 | 0.00 | <b>0.34</b> | BETL   |
| RCH 1026 BG II       | 0.27                                    | 0.56 | 0.00 | 0.00 | <b>0.21</b> | BETL   |
| DLCH-9 Bt II         | 0.53                                    | 0.44 | 0.00 | 0.00 | <b>0.24</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.17                                    | 0.78 | 0.00 | 0.00 | <b>0.24</b> | BETL   |
| 25D181 BGII          | 0.30                                    | 0.44 | 0.00 | 0.00 | <b>0.19</b> | BETL   |

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |       |             | Remark |
|----------------------|---------------------------------------------------------|------|------|-------|-------------|--------|
|                      | GU                                                      | RA   | CBE  | WR    | Mean        |        |
| KCH 9221 BGII        | 4.00                                                    | 2.19 | 1.00 | 8.67  | <b>3.96</b> | AETL   |
| Core 102             | 3.50                                                    | 2.44 | 1.00 | 7.67  | <b>3.65</b> | AETL   |
| KCH 9225 BGII        | 3.83                                                    | 1.66 | 0.33 | 8.67  | <b>3.62</b> | AETL   |
| NBC 21 BGII          | 4.33                                                    | 2.02 | 1.33 | 11.67 | <b>4.84</b> | AETL   |
| DC 5105 BGII         | 5.50                                                    | 1.75 | 0.67 | 9.33  | <b>4.31</b> | AETL   |
| KCH 9222 BGII        | 5.00                                                    | 1.83 | 1.00 | 9.00  | <b>4.21</b> | AETL   |
| C 9339 BGII          | 3.67                                                    | 2.14 | 0.67 | 9.33  | <b>3.95</b> | AETL   |
| VSCH 369 BGII (ZC 2) | 6.33                                                    | 1.94 | 1.33 | 7.67  | <b>4.32</b> | AETL   |
| KCH 9223 BGII        | 3.83                                                    | 1.77 | 1.00 | 6.67  | <b>3.32</b> | AETL   |
| SS 459 BG II         | 6.00                                                    | 1.70 | 1.00 | 8.33  | <b>4.26</b> | AETL   |
| VSCH 372 BGII        | 3.50                                                    | 1.94 | 0.67 | 12.00 | <b>4.53</b> | AETL   |
| US 717 BGII          | 4.33                                                    | 2.50 | 0.67 | 9.00  | <b>4.12</b> | AETL   |
| RCH 1016 BGII        | 5.33                                                    | 1.52 | 1.00 | 5.33  | <b>3.30</b> | AETL   |
| RCH 1026 BG II       | 4.67                                                    | 2.05 | 0.67 | 5.67  | <b>3.26</b> | AETL   |
| DLCH-9 Bt II         | 5.00                                                    | 1.91 | 0.67 | 11.33 | <b>4.73</b> | AETL   |
| NBC 1821 BGII (ZC 1) | 3.67                                                    | 2.25 | 1.00 | 9.67  | <b>4.15</b> | AETL   |
| 25D181 BGII          | 4.67                                                    | 1.58 | 0.67 | 9.33  | <b>4.06</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| KCH 9221 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Core 102             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9225 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 21 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DC 5105 BGII         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9222 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| C 9339 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| KCH 9223 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| SS 459 BG II         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 372 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| US 717 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1016 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RCH 1026 BG II       | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| DLCH-9 Bt II         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| 25D181 BGII          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|--------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |        |
| KCH 9221 BGII        | 33.33                                                 | 7.54 | 0.00  | 56.67 | <b>24.39</b> | AETL   |
| Core 102             | 25.00                                                 | 9.88 | 10.00 | 46.67 | <b>22.89</b> | AETL   |
| KCH 9225 BGII        | 33.33                                                 | 7.35 | 10.00 | 53.33 | <b>26.00</b> | AETL   |
| NBC 21 BGII          | 30.00                                                 | 6.82 | 25.00 | 60.00 | <b>30.46</b> | AETL   |
| DC 5105 BGII         | 46.67                                                 | 7.46 | 10.00 | 50.00 | <b>28.53</b> | AETL   |
| KCH 9222 BGII        | 40.00                                                 | 8.03 | 5.00  | 53.33 | <b>26.59</b> | AETL   |
| C 9339 BGII          | 30.00                                                 | 9.42 | 25.00 | 56.67 | <b>30.27</b> | AETL   |
| VSCH 369 BGII (ZC 2) | 33.33                                                 | 8.02 | 30.00 | 46.67 | <b>29.51</b> | AETL   |
| KCH 9223 BGII        | 36.67                                                 | 8.37 | 30.00 | 43.33 | <b>29.59</b> | AETL   |
| SS 459 BG II         | 36.67                                                 | 7.19 | 10.00 | 43.33 | <b>24.30</b> | AETL   |
| VSCH 372 BGII        | 23.33                                                 | 9.43 | 5.00  | 53.33 | <b>22.77</b> | AETL   |
| US 717 BGII          | 35.00                                                 | 7.85 | 10.00 | 53.33 | <b>26.55</b> | AETL   |
| RCH 1016 BGII        | 31.67                                                 | 7.73 | 20.00 | 36.67 | <b>24.02</b> | AETL   |
| RCH 1026 BG II       | 35.00                                                 | 8.37 | 10.00 | 36.67 | <b>22.51</b> | AETL   |
| DLCH-9 Bt II         | 35.00                                                 | 6.59 | 20.00 | 60.00 | <b>30.40</b> | AETL   |
| NBC 1821 BGII (ZC 1) | 33.33                                                 | 7.19 | 15.00 | 53.33 | <b>27.21</b> | AETL   |
| 25D181 BGII          | 30.00                                                 | 5.88 | 15.00 | 53.33 | <b>26.05</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | RA    | CBE   | WR    | Mean         |        |
| KCH 9221 BGII        | 55.62                | 10.98 | 8.19  | 55.00 | <b>32.45</b> |        |
| Core 102             | 41.61                | 14.40 | 9.08  | 40.00 | <b>26.27</b> |        |
| KCH 9225 BGII        | 50.31                | 10.49 | 12.10 | 30.00 | <b>25.73</b> |        |
| NBC 21 BGII          | 49.61                | 9.36  | 19.91 | 40.00 | <b>29.72</b> |        |
| DC 5105 BGII         | 62.14                | 10.43 | 7.02  | 45.00 | <b>31.15</b> |        |
| KCH 9222 BGII        | 58.11                | 11.36 | 20.66 | 30.00 | <b>30.03</b> |        |
| C 9339 BGII          | 40.65                | 11.75 | 10.24 | 60.00 | <b>30.66</b> |        |
| VSCH 369 BGII (ZC 2) | 41.64                | 11.98 | 11.20 | 45.00 | <b>27.46</b> |        |
| KCH 9223 BGII        | 38.96                | 11.86 | 14.77 | 55.00 | <b>30.15</b> |        |
| SS 459 BG II         | 54.21                | 10.66 | 10.38 | 30.00 | <b>26.31</b> |        |
| VSCH 372 BGII        | 33.64                | 13.43 | 7.67  | 40.00 | <b>23.69</b> |        |
| US 717 BGII          | 42.19                | 12.57 | 12.19 | 45.00 | <b>27.99</b> |        |
| RCH 1016 BGII        | 38.75                | 10.49 | 12.35 | 45.00 | <b>26.65</b> |        |
| RCH 1026 BG II       | 41.78                | 12.54 | 10.17 | 50.00 | <b>28.62</b> |        |
| DLCH-9 Bt II         | 50.26                | 10.01 | 7.72  | 45.00 | <b>28.25</b> |        |
| NBC 1821 BGII (ZC 1) | 39.74                | 11.28 | 9.80  | 25.00 | <b>21.46</b> |        |
| 25D181 BGII          | 41.22                | 10.38 | 14.22 | 65.00 | <b>32.70</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |       |      |       |              | Remark |
|----------------------|-------------------|-------|------|-------|--------------|--------|
|                      | GU                | RA    | CBE  | WR    | Mean         |        |
| KCH 9221 BGII        | 26.75             | 8.67  | 3.71 | 15.42 | <b>13.64</b> |        |
| Core 102             | 23.74             | 12.09 | 4.48 | 13.00 | <b>13.33</b> |        |
| KCH 9225 BGII        | 31.25             | 8.18  | 6.15 | 10.61 | <b>14.05</b> |        |
| NBC 21 BGII          | 29.14             | 7.05  | 9.45 | 12.06 | <b>14.42</b> |        |
| DC 5105 BGII         | 38.95             | 8.12  | 1.93 | 17.26 | <b>16.57</b> |        |
| KCH 9222 BGII        | 29.11             | 9.05  | 6.17 | 13.30 | <b>14.41</b> |        |
| C 9339 BGII          | 22.67             | 9.44  | 4.05 | 21.29 | <b>14.36</b> |        |
| VSCH 369 BGII (ZC 2) | 23.78             | 9.67  | 5.44 | 14.15 | <b>13.26</b> |        |
| KCH 9223 BGII        | 22.56             | 9.55  | 5.63 | 20.75 | <b>14.62</b> |        |
| SS 459 BG II         | 30.26             | 8.35  | 4.52 | 10.34 | <b>13.37</b> |        |
| VSCH 372 BGII        | 21.56             | 11.12 | 3.54 | 11.17 | <b>11.85</b> |        |
| US 717 BGII          | 23.87             | 10.26 | 5.43 | 17.54 | <b>14.27</b> |        |
| RCH 1016 BGII        | 20.77             | 8.18  | 5.91 | 10.19 | <b>11.26</b> |        |
| RCH 1026 BG II       | 23.56             | 10.23 | 3.99 | 16.50 | <b>13.57</b> |        |
| DLCH-9 Bt II         | 30.31             | 7.70  | 3.27 | 20.71 | <b>15.50</b> |        |
| NBC 1821 BGII (ZC 1) | 27.56             | 8.97  | 4.05 | 11.39 | <b>12.99</b> |        |
| 25D181 BGII          | 19.55             | 8.07  | 5.77 | 15.53 | <b>12.23</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



## Reaction to Diseases

**Table 3 (c) Advanced Evaluation Trial –II of Intra-hirsutum Hybrids – Irrigated (AET-II Hybrids IRR) under unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                                 |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                        |    | GM   |    | Rust |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 9      | 55061   | KCH 9221 BGII        | 29.5                                                        | MR | 15.0 | R  | 26.3 | MR | 4.5                 | R  | 0.0      | DF | 0.0 | DF | 1.4 | R  | 8.5  | R  |
| 16     | 55062   | Core 102             | 27.5                                                        | MR | 30.3 | MR | 32.5 | MR | 7.5                 | R  | 0.0      | DF | 1.0 | R  | 0.0 | DF | 6.0  | R  |
| 1      | 55063   | KCH 9225 BGII        | 4.5                                                         | R  | 30.4 | MR | 28.3 | MR | 5.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 7.0  | R  |
| 7      | 55064   | NBC 21 BGII          | 4.97                                                        | R  | 28.5 | MR | 26.8 | MR | 4.0                 | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 6.5  | R  |
| 17     | 55065   | DC 5105 BGII         | 27.5                                                        | MR | 9.2  | R  | 31.5 | MR | 6.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 10.0 | R  |
| 4      | 55066   | KCH 9222 BGII        | 31.0                                                        | MR | 27.5 | MR | 15.8 | R  | 5.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 6.0  | R  |
| 11     | 55067   | C 9339 BGII          | 19.8                                                        | R  | 26.3 | MR | 27.5 | MR | 6.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.0  | R  |
| 15     | 55068   | VSCH 369 BGII (ZC 2) | 28.5                                                        | MR | 20.0 | R  | 13.0 | R  | 6.0                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.0  | R  |
| 2      | 55069   | KCH 9223 BGII        | 26.5                                                        | MR | 33.8 | MR | 31.3 | MR | 5.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.0  | R  |
| 14     | 55070   | SS 459 BG II         | 29.0                                                        | MR | 22.0 | R  | 41.0 | MR | 5.0                 | R  | 0.0      | DF | 0.3 | R  | 0.0 | DF | 5.0  | R  |
| 6      | 55071   | VSCH 372 BGII        | 24.5                                                        | R  | 26.0 | MR | 28.5 | MR | 3.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | R  |
| 13     | 55072   | US 717 BGII          | 24.0                                                        | R  | 22.5 | R  | 32.0 | MR | 4.5                 | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 0.0  | R  |
| 3      | 55073   | RCH 1016 BGII        | 22.0                                                        | R  | 25.5 | MR | 17.2 | R  | 0.0                 | DF | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.5  | R  |
| 10     | 55074   | RCH 1026 BG II       | 20.0                                                        | R  | 21.5 | R  | 29.5 | MR | 5.0                 | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 0.0  | R  |
| 5      | 55075   | DLCH-9 Bt II         | 20.4                                                        | R  | 16.5 | R  | 12.3 | R  | 6.0                 | R  | 0.0      | DF | 3.5 | R  | 0.0 | DF | 0.0  | R  |
| 8      | 55076   | NBC 1821 BGII (ZC 1) | 29.5                                                        | MR | 27.3 | MR | 28.5 | MR | 7.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.0  | R  |
| 12     | 55077   | 25D181 BGII          | 31.5                                                        | MR | 28.0 | MR | 33.3 | MR | 6.5                 | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 0.0  | R  |

Table 3 (d) Advanced Evaluation Trial –II of Intra-hirsutum Hybrids – Irrigated (AET-II Hybrids IRR) under Unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|------|----|
|        |         |                      | RARS, Warangal                                              |    |      |    |      |    |      |    |      |    |
|        |         |                      | ALS                                                         |    | CoLS |    | GM   |    | Rust |    | TSV  |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 9      | 55061   | KCH 9221 BGII        | 7.0                                                         | R  | 10.5 | R  | 16.0 | R  | 33.0 | MR | 11.3 | R  |
| 16     | 55062   | Core 102             | 7.0                                                         | R  | 7.0  | R  | 21.0 | R  | 43.5 | MR | 8.8  | R  |
| 1      | 55063   | KCH 9225 BGII        | 12.0                                                        | R  | 9.5  | R  | 21.0 | R  | 50.5 | MS | 7.5  | R  |
| 7      | 55064   | NBC 21 BGII          | 7.0                                                         | R  | 8.0  | R  | 12.0 | R  | 18.0 | R  | 12.5 | R  |
| 17     | 55065   | DC 5105 BGII         | 6.5                                                         | R  | 8.0  | R  | 21.5 | R  | 46.5 | MR | 8.8  | R  |
| 4      | 55066   | KCH 9222 BGII        | 9.0                                                         | R  | 12.5 | R  | 20.5 | R  | 46.5 | MR | 6.3  | R  |
| 11     | 55067   | C 9339 BGII          | 7.0                                                         | R  | 7.0  | R  | 20.0 | R  | 53.0 | MS | 5.0  | R  |
| 15     | 55068   | VSCH 369 BGII (ZC 2) | 7.0                                                         | R  | 9.0  | R  | 23.5 | R  | 39.5 | MR | 10.0 | R  |
| 2      | 55069   | KCH 9223 BGII        | 4.5                                                         | R  | 4.5  | R  | 17.0 | R  | 38.5 | MR | 6.3  | R  |
| 14     | 55070   | SS 459 BG II         | 7.5                                                         | R  | 16.5 | R  | 18.0 | R  | 26.5 | MR | 11.3 | R  |
| 6      | 55071   | VSCH 372 BGII        | 12.0                                                        | R  | 13.0 | R  | 22.5 | R  | 47.0 | MR | 13.8 | R  |
| 13     | 55072   | US 717 BGII          | 7.0                                                         | R  | 7.5  | R  | 18.0 | R  | 29.0 | MR | 6.3  | R  |
| 3      | 55073   | RCH 1016 BGII        | 8.0                                                         | R  | 5.5  | R  | 24.0 | R  | 39.0 | MR | 7.5  | R  |
| 10     | 55074   | RCH 1026 BG II       | 6.5                                                         | R  | 12.5 | R  | 25.0 | R  | 38.0 | MR | 5.0  | R  |
| 5      | 55075   | DLCH-9 Bt II         | 7.0                                                         | R  | 7.0  | R  | 24.0 | R  | 45.5 | MR | 10.0 | R  |
| 8      | 55076   | NBC 1821 BGII (ZC 1) | 6.5                                                         | R  | 7.0  | R  | 22.0 | R  | 46.5 | MR | 12.5 | R  |
| 12     | 55077   | 25D181 BGII          | 6.5                                                         | R  | 10.0 | R  | 20.0 | R  | 48.5 | MR | 10.0 | R  |

**Table 3 (e) Advanced Evaluation Trial –II of Intra-hirsutum Hybrids – Irrigated (AET-II Hybrids IRR) under Protected conditions and unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |     |    |     |    | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |     |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|-----|----|-----|----|-------------------------------------------------------------|----|------|----|------|----|-----|----|
|        |         |                      | Kaveri, Hyderabad                                         |    |      |    |     |    |     |    | Kaveri, Hyderabad                                           |    |      |    |      |    |     |    |
|        |         |                      | GM                                                        |    | ALS  |    | BLB |    | TSV |    | GM                                                          |    | ALS  |    | BLB  |    | TSV |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI | DR | PDI | DR | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 9      | 55061   | KCH 9221 BGII        | 4.1                                                       | R  | 3.7  | R  | 2.9 | R  | 0.6 | R  | 10.5                                                        | R  | 12.1 | R  | 8.9  | R  | 2.9 | R  |
| 16     | 55062   | Core 102             | 6.6                                                       | R  | 4.7  | R  | 4.1 | R  | 1.2 | R  | 14.0                                                        | R  | 14.4 | R  | 10.0 | R  | 3.4 | R  |
| 1      | 55063   | KCH 9225 BGII        | 4.2                                                       | R  | 3.8  | R  | 3.0 | R  | 0.8 | R  | 11.3                                                        | R  | 12.3 | R  | 8.7  | R  | 2.7 | R  |
| 7      | 55064   | NBC 21 BGII          | 7.1                                                       | R  | 9.3  | R  | 5.9 | R  | 1.4 | R  | 14.0                                                        | R  | 17.9 | R  | 11.3 | R  | 3.6 | R  |
| 17     | 55065   | DC 5105 BGII         | 10.4                                                      | R  | 8.8  | R  | 4.6 | R  | 2.2 | R  | 18.5                                                        | R  | 17.0 | R  | 10.8 | R  | 4.1 | R  |
| 4      | 55066   | KCH 9222 BGII        | 4.4                                                       | R  | 3.9  | R  | 3.1 | R  | 0.8 | R  | 12.0                                                        | R  | 12.0 | R  | 9.0  | R  | 3.0 | R  |
| 11     | 55067   | C 9339 BGII          | 7.2                                                       | R  | 4.4  | R  | 5.0 | R  | 2.3 | R  | 11.8                                                        | R  | 13.0 | R  | 10.8 | R  | 4.4 | R  |
| 15     | 55068   | VSCH 369 BGII (ZC 2) | 9.4                                                       | R  | 7.9  | R  | 4.0 | R  | 1.4 | R  | 17.8                                                        | R  | 17.8 | R  | 10.0 | R  | 3.5 | R  |
| 2      | 55069   | KCH 9223 BGII        | 4.8                                                       | R  | 3.9  | R  | 3.5 | R  | 0.8 | R  | 11.8                                                        | R  | 11.3 | R  | 9.3  | R  | 3.3 | R  |
| 14     | 55070   | SS 459 BG II         | 5.5                                                       | R  | 9.7  | R  | 5.3 | R  | 1.5 | R  | 13.8                                                        | R  | 17.9 | R  | 11.6 | R  | 3.4 | R  |
| 6      | 55071   | VSCH 372 BGII        | 5.4                                                       | R  | 5.0  | R  | 4.7 | R  | 2.5 | R  | 15.3                                                        | R  | 14.5 | R  | 10.3 | R  | 4.1 | R  |
| 13     | 55072   | US 717 BGII          | 6.3                                                       | R  | 10.5 | R  | 4.6 | R  | 2.0 | R  | 15.8                                                        | R  | 18.4 | R  | 10.4 | R  | 4.5 | R  |
| 3      | 55073   | RCH 1016 BGII        | 6.8                                                       | R  | 4.2  | R  | 3.1 | R  | 2.2 | R  | 11.8                                                        | R  | 11.5 | R  | 11.3 | R  | 4.7 | R  |
| 10     | 55074   | RCH 1026 BG II       | 4.8                                                       | R  | 3.8  | R  | 5.0 | R  | 1.5 | R  | 16.8                                                        | R  | 11.3 | R  | 9.5  | R  | 3.9 | R  |
| 5      | 55075   | DLCH-9 Bt II         | 9.2                                                       | R  | 9.1  | R  | 6.4 | R  | 1.9 | R  | 17.8                                                        | R  | 18.0 | R  | 11.5 | R  | 3.8 | R  |
| 8      | 55076   | NBC 1821 BGII (ZC 1) | 5.7                                                       | R  | 8.5  | R  | 6.6 | R  | 1.4 | R  | 13.8                                                        | R  | 17.0 | R  | 12.0 | R  | 3.4 | R  |
| 12     | 55077   | 25D181 BGII          | 11.2                                                      | R  | 8.5  | R  | 6.2 | R  | 2.0 | R  | 20.6                                                        | R  | 16.5 | R  | 11.7 | R  | 3.6 | R  |

Table 3 (f) Advanced Evaluation Trial –II of Intra-hirsutum Hybrids – Irrigated (AET-II Hybrids IRR) under Protected conditions and unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction :Protected conditions |    |      |    |     |    | Average PDI & Disease Reaction: Unprotected conditions |    |      |    |      |    |
|--------|---------|----------------------|------------------------------------------------------|----|------|----|-----|----|--------------------------------------------------------|----|------|----|------|----|
|        |         |                      | Eldorado Agritech Ltd. Karimnagar                    |    |      |    |     |    | Eldorado Agritech Ltd. Karimnagar                      |    |      |    |      |    |
|        |         |                      | ALS                                                  |    | GM   |    | TSV |    | ALS                                                    |    | GM   |    | TSV  |    |
|        |         |                      | PDI                                                  | DR | PDI  | DR | PDI | DR | PDI                                                    | DR | PDI  | DR | PDI  | DR |
| 9      | 55061   | KCH 9221 BGII        | 13.7                                                 | R  | 14.3 | R  | 2.5 | R  | 19.0                                                   | R  | 21.5 | R  | 9.5  | R  |
| 16     | 55062   | Core 102             | 7.3                                                  | R  | 10.3 | R  | 2.5 | R  | 12.5                                                   | R  | 16.0 | R  | 7.5  | R  |
| 1      | 55063   | KCH 9225 BGII        | 10.3                                                 | R  | 24.7 | R  | 3.7 | R  | 20.5                                                   | R  | 28.5 | R  | 10.5 | R  |
| 7      | 55064   | NBC 21 BGII          | 9.3                                                  | R  | 15.7 | R  | 0.0 | DF | 18.5                                                   | R  | 24.0 | R  | 5.0  | R  |
| 17     | 55065   | DC 5105 BGII         | 10.3                                                 | R  | 12.0 | R  | 3.3 | R  | 12.0                                                   | R  | 14.5 | R  | 6.5  | R  |
| 4      | 55066   | KCH 9222 BGII        | 12.0                                                 | R  | 7.8  | R  | 2.5 | R  | 15.0                                                   | R  | 15.5 | R  | 5.5  | R  |
| 11     | 55067   | C 9339 BGII          | 12.8                                                 | R  | 20.2 | R  | 0.0 | DF | 11.0                                                   | R  | 18.0 | R  | 5.0  | R  |
| 15     | 55068   | VSCH 369 BGII (ZC 2) | 18.7                                                 | R  | 17.0 | R  | 3.8 | R  | 24.0                                                   | R  | 19.5 | R  | 8.5  | R  |
| 2      | 55069   | KCH 9223 BGII        | 12.7                                                 | R  | 16.8 | R  | 5.7 | R  | 15.0                                                   | R  | 25.0 | R  | 8.5  | R  |
| 14     | 55070   | SS 459 BG II         | 8.3                                                  | R  | 12.3 | R  | 2.0 | R  | 12.5                                                   | R  | 16.5 | R  | 5.0  | R  |
| 6      | 55071   | VSCH 372 BGII        | 27.7                                                 | MR | 20.3 | R  | 4.3 | R  | 38.0                                                   | MR | 25.0 | R  | 9.5  | R  |
| 13     | 55072   | US 717 BGII          | 17.7                                                 | R  | 15.3 | R  | 3.3 | R  | 22.5                                                   | R  | 18.0 | R  | 8.0  | R  |
| 3      | 55073   | RCH 1016 BGII        | 18.0                                                 | R  | 24.0 | R  | 2.2 | R  | 20.5                                                   | R  | 22.5 | R  | 5.5  | R  |
| 10     | 55074   | RCH 1026 BG II       | 29.3                                                 | MR | 22.6 | R  | 2.3 | R  | 37.5                                                   | MR | 22.5 | R  | 9.0  | R  |
| 5      | 55075   | DLCH-9 Bt II         | 18.5                                                 | R  | 25.7 | MR | 4.3 | R  | 24.0                                                   | R  | 36.5 | MR | 7.0  | R  |
| 8      | 55076   | NBC 1821 BGII (ZC 1) | 27.0                                                 | MR | 25.3 | MR | 0.0 | DF | 35.0                                                   | MR | 33.0 | MR | 4.0  | R  |
| 12     | 55077   | 25D181 BGII          | 23.3                                                 | R  | 23.5 | R  | 2.0 | R  | 28.5                                                   | MR | 28.0 | MR | 7.0  | R  |

## Agronomic Evaluation

### WARANGAL (SS459 BG-II)

The results of agronomic requirements of SS459 BG-II trial conducted at RARS, Warangal under irrigated conditions revealed that SS459 BG-II cotton hybrid produced a significantly higher seed cotton yield (2205 kg/ha) with a spacing of 90x30 cm (37,037 plants/ha) plant geometry and recorded 46.5 bolls/m<sup>2</sup> (Table 71). The low seed cotton yield (1574 kg/ha) realized in spacing of 90x60 cm with 18,518 plants/ha. Application of nitrogen 120 and 150 kg/ha recorded statistically on par seed cotton yield 1948 and 1951 kg/ha. The interaction among different plant geometries and nitrogen levels was found to be non-significant.

**Table 71. Seed cotton yield (kg/ha) of SS-459 BG-II as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                   | S <sub>1</sub> :<br>90x30<br>cm | S <sub>2</sub> :<br>90x45<br>cm | S <sub>3</sub> :<br>90x60<br>cm | Mean<br>(Nitrogen) | ANOVA    | SE d  | CD<br>(5%) |
|------------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------|----------|-------|------------|
| N <sub>1</sub> - 75 %RDN     | 2146                            | 1566                            | 1304                            | <b>1692</b>        | Spacing  | 167.9 | <b>356</b> |
| N <sub>2</sub> - 100<br>%RDN | 2220                            | 1944                            | 1681                            | <b>1948</b>        | Nitrogen | 167.9 | <b>356</b> |
| N <sub>3</sub> -125<br>%RDN  | 2250                            | 1864                            | 1738                            | <b>1951</b>        | S X N    | 290.8 | <b>NS</b>  |
| <b>Mean<br/>(spacing)</b>    | <b>2205</b>                     | <b>1791</b>                     | <b>1574</b>                     |                    |          |       |            |

Basic parameters: pH: 6.5–7.5, EC: 0.4 dS m<sup>-1</sup>, OC (%): 0.3, Available N: 120 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 56 kg/ha, Available K<sub>2</sub>O: 280 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: SS459 BG-II, Environment: Rainfed, Total rainfall during cropping period: 744.5 mm

### Bheemarayanagudi (RCH 1016 BG II)

The results of agronomic requirement studies conducted at Bheemarayanagudi under irrigated conditions revealed that significantly higher seed cotton yield was recorded with 90 x 45 cm spacing (2829 kg/ha) compared to other spacings.(Table 83).The increase in higher seed cotton yield was mainly due to increased number of bolls/sq. m. (200.1), Among fertilizer doses, higher seed cotton yield was obtained with 125% recommended N/ha (2688 kg/ha) followed by 100% recommended N/ha (2573 kg/ha) compared to 75% recommended N/ha (2431 kg/ha). This could be attributed to higher sympodia/plant, higher boll number/plant and boll weight. Interaction found non-significant.



**Table 83. Total Seed cotton yield (kg/ha) of RCH 1016 BG II (140 DAS + 160 DAS) as influenced by spacing levels and nutrient levels at Bheemarayanagudi**

| Treatments                | RCH 1016 BG II |                   |                    | Mean (N levels) |
|---------------------------|----------------|-------------------|--------------------|-----------------|
|                           | S1: 90 x 45 cm | S2: 90 cm X 60 cm | S3: 90 x 75 cm     |                 |
| N <sub>1</sub> - 75 %RDN  | 2690           | 2410              | 2192               | <b>2431</b>     |
| N <sub>2</sub> - 100 %RDN | 2823           | 2601              | 2295               | <b>2573</b>     |
| N <sub>3</sub> -125 %RDN  | 2974           | 2707              | 2382               | <b>2688</b>     |
| <b>Mean (spacing)</b>     | <b>2829</b>    | <b>2573</b>       | <b>2290</b>        |                 |
| <b>ANOVA</b>              | <b>Spacing</b> | <b>N levels</b>   | <b>Interaction</b> |                 |
| <b>SE d</b>               | <b>115</b>     | <b>115</b>        | <b>200</b>         |                 |
| <b>CD (5%)</b>            | <b>247</b>     | <b>NS</b>         | <b>NS</b>          |                 |

Basic parameters: pH: 8.06, OC (%): 0.42, Available N: 328 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 39 kg/ha, Available K<sub>2</sub>O: 358 kg/ha, Recommended nutrients: 180:90:90 kg NPK/ha, Genotype: RCH 1016 BG II, Environment: Irrigated

#### **Bheemarayanagudi (DC 5105 BG II)**

The results of agronomic requirement studies conducted at Bheemarayanagudi under irrigated conditions revealed that significantly higher seed cotton yield was recorded with 90 x 45 cm spacing (3122 kg/ha) compared to other spacings. (Table 82). The increase in higher seed cotton yield was mainly due to increased number of bolls/sq. m. (178.8), Among fertilizer doses, higher seed cotton yield was obtained with 125% recommended N/ha (2923 kg/ha) followed by 100% recommended N/ha (2799 kg/ha) compared to 75% recommended N/ha (2603 kg/ha). This could be attributed to higher sympodia/plant, higher boll number/plant and boll weight. Interaction found non-significant.

**Table 82. Total Seed cotton yield (kg/ha) of DC 5105 BG II (140 DAS + 160 DAS) as influenced by spacing levels and nutrient levels at Bheemarayanagudi**

| Treatments                | DC 5105 BG II  |                   |                    | Mean (N levels) |
|---------------------------|----------------|-------------------|--------------------|-----------------|
|                           | S1: 90 x 45 cm | S2: 90 cm X 60 cm | S3: 90 x 75 cm     |                 |
| N <sub>1</sub> - 75 %RDN  | 2938           | 2553              | 2317               | <b>2603</b>     |
| N <sub>2</sub> - 100 %RDN | 3141           | 2809              | 2445               | <b>2799</b>     |
| N <sub>3</sub> -125 %RDN  | 3256           | 2959              | 2554               | <b>2923</b>     |
| <b>Mean (spacing)</b>     | <b>3112</b>    | <b>2774</b>       | <b>2439</b>        |                 |
| <b>ANOVA</b>              | <b>Spacing</b> | <b>N levels</b>   | <b>Interaction</b> |                 |
| <b>SE d</b>               | <b>125</b>     | <b>125</b>        | <b>217</b>         |                 |
| <b>CD (5%)</b>            | <b>217</b>     | <b>NS</b>         | <b>NS</b>          |                 |

Basic parameters: pH: 8.04, OC (%): 0.42, Available N: 328 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 39 kg/ha, Available K<sub>2</sub>O: 358 kg/ha, Recommended nutrients: 180:90:90 kg NPK/ha, Genotype: DC 5105 BG II, Environment: Irrigated





**WARANGAL (CORE-102BG-II)**

The results of agronomic requirements of Core genes CORE-102BG-II trial conducted at RARS, Warangal under irrigated conditions revealed that CORE-102BG-II cotton hybrid produced a non significant seed cotton yield under the different spacing level (Table 72). Application of Nitrogen 120 and 150 kg/ha recorded statistically at par seed cotton yield 2615 and 2620 kg/ha. Nitrogen application of 90 kg/ha recorded the least seed cotton yield 2131 kg/ha. The interaction among different plant geometries and nitrogen levels was found to be non significant.

**Table 72. Seed cotton yield (kg/ha) of CORE-102BG-II as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                | S <sub>1</sub> :<br>90x30<br>cm | S <sub>2</sub> :<br>90x45<br>cm | S <sub>3</sub> :<br>90x60<br>cm | Mean<br>(Nitrogen) | ANOVA    | SE d         | CD<br>(5%) |
|---------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------|----------|--------------|------------|
| N <sub>1</sub> - 75 %RDN  | 2390                            | 2065                            | 1939                            | <b>2131</b>        | Spacing  | <b>134.9</b> | <b>NS</b>  |
| N <sub>2</sub> - 100 %RDN | 2875                            | 2611                            | 2371                            | <b>2615</b>        | Nitrogen | <b>134.9</b> | <b>286</b> |
| N <sub>3</sub> -125 %RDN  | 2832                            | 2592                            | 2437                            | <b>2620</b>        | S X N    | <b>233.6</b> | <b>NS</b>  |
| Mean (spacing)            | <b>2699</b>                     | <b>2423</b>                     | <b>2249</b>                     |                    |          |              |            |

Basic parameters: pH: 6.5–7.5, EC: 0.4 dS m<sup>-1</sup>, OC (%): 0.3, Available N: 120 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 56 kg/ha, Available K<sub>2</sub>O: 280 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: CORE-102 BG-II, Environment: Rainfed, Total rainfall during cropping period: 744.5 mm

**WARANGAL (DLCH-9 BG-II)**

The results of agronomic requirements of DLCH-9 BG-II trial conducted at RARS, Warangal under irrigated conditions revealed that DLCH-9BG-II cotton hybrid produced a significantly higher seed cotton yield (2661 kg/ha) with a spacing of 90x30 cm (37,037 plants/ha) and recorded 61.5 bolls/m<sup>2</sup> (Table 73). The seed cotton yield of 2170 kg/ha realized in spacing of 90x60 cm with 18,518 plants/ha and 90x45 cm spacing with 24,691 plants/ha recorded seed cotton yield 2126 kg/ha. Among the nitrogen fertilizer level seed cotton yield was found to be non-significant. The interaction among different plant geometries and nitrogen levels was found to be non-significant

**Table 73. DLCH-9 BG-II : Seed cotton yield (kg/ha) as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                | S <sub>1</sub> :<br>90x30<br>cm | S <sub>2</sub> :<br>90x45<br>cm | S <sub>3</sub> :<br>90x60<br>cm | Mean<br>(Nitrogen) | ANOVA    | SE d   | CD<br>(5%)   |
|---------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------|----------|--------|--------------|
| N <sub>1</sub> - 75 %RDN  | 2329                            | 1968                            | 2055                            | <b>2117</b>        | Spacing  | 133.78 | <b>283.6</b> |
| N <sub>2</sub> - 100 %RDN | 2788                            | 2320                            | 2335                            | <b>2481</b>        | Nitrogen | 133.78 | <b>NS</b>    |
| N <sub>3</sub> -125 %RDN  | 2865                            | 2091                            | 2119                            | <b>2358</b>        | S X N    | 231.71 | <b>NS</b>    |
| Mean (spacing)            | <b>2661</b>                     | <b>2126</b>                     | <b>2170</b>                     |                    |          |        |              |

Basic parameters: pH: 6.5–7.5, EC: 0.4 dS m<sup>-1</sup>, OC (%): 0.3, Available N: 120 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 56 kg/ha, Available K<sub>2</sub>O: 280 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: DLCH-9 BG-II, Environment: Rainfed, Total rainfall during cropping period: 744.5 mm



**WARANGAL (25D181 BG-II)**

The results of agronomic requirements of V.25D181 BG-II trial conducted at RARS, Warangal under irrigated conditions revealed that V.25D181 BG-II cotton hybrid produced a significantly higher seed cotton yield (1346 kg/ha) with a spacing of 90x30 cm (37,037 plants/ha) plant geometry and recorded 43.7 bolls/m<sup>2</sup> (Table 74). The lowest seed cotton yield (895 kg/ha) was realized in a spacing of 90x60 cm with 18,518 plants/ha. Application of nitrogen 120 and 150 kg/ha recorded statistically at par seed cotton yield 11282 and 1211 kg/ha. The least seed cotton yield 1692 kg/ha realised by nitrogen application of 90 kg/ha. The interaction among different plant geometries and nitrogen levels was found to be non-significant.

**Table 74. Seed cotton yield (kg/ha) of 25D181 BG-II as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                | S <sub>1</sub> :<br>90x30<br>cm | S <sub>2</sub> : 90x45<br>cm | S <sub>3</sub> :<br>90x60<br>cm | Mean<br>(Nitrogen) | ANOVA    | SE d   | CD<br>(5%)   |
|---------------------------|---------------------------------|------------------------------|---------------------------------|--------------------|----------|--------|--------------|
| N <sub>1</sub> - 75 %RDN  | 1053                            | 1000                         | 769                             | <b>941</b>         | Spacing  | 92.95  | <b>197.0</b> |
| N <sub>2</sub> - 100 %RDN | 1520                            | 1303                         | 1022                            | <b>1282</b>        | Nitrogen | 92.95  | <b>197.0</b> |
| N <sub>3</sub> -125 %RDN  | 1464                            | 1276                         | 894                             | <b>1211</b>        | S X N    | 161.00 | <b>NS</b>    |
| <b>Mean (spacing)</b>     | <b>1346</b>                     | <b>1193</b>                  | <b>895</b>                      |                    |          |        |              |

Basic parameters: pH: 6.5–7.5, EC: 0.5 dS m<sup>-1</sup>, OC (%): 0.2, Available N: 105 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 40 kg/ha, Available K<sub>2</sub>O: 240 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: V.25D181 BG-II, Environment: Rainfed, Total rainfall during cropping period: 744.5 mm

**WARANGAL (KCH-9221BG.II)**

The results of agronomic requirements of KCH-9221BG.II trial conducted at RARS, Warangal under irrigated conditions revealed that KCH-9221BG.II cotton hybrid produced a numerically higher seed cotton yield (2021 kg/ha) with a spacing of 90x30 cm (37,037 plants/ha) plant geometry and recorded 47.90 bolls/m<sup>2</sup>. (Table 75). The spacing 90 x 60 cm with 18,518 plants/ha registered the numerically least seed cotton yield (1865 kg/ha). Application of Nitrogen 120 and 150 kg/ha recorded statistically at par seed cotton yield 2036 and 2022 kg/ha and 90 kg/ha nitrogen application recorded Seed cotton yield 1582kg/ha. The interaction among different plant geometries and nitrogen levels was found to be non significant.

**Table 75. Seed cotton yield (kg/ha) of KCH-9221 BG.II as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                | S <sub>1</sub> :<br>90x30<br>cm | S <sub>2</sub> :<br>90x45<br>cm | S <sub>3</sub> :<br>90x60<br>cm | Mean<br>(Nitrogen) | ANOVA    | SE d         | CD<br>(5%)   |
|---------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------|----------|--------------|--------------|
| N <sub>1</sub> - 75 %RDN  | 1619                            | 1428                            | 1699                            | <b>1582</b>        | Spacing  | <b>133.5</b> | <b>NS</b>    |
| N <sub>2</sub> - 100 %RDN | 2343                            | 1852                            | 1913                            | <b>2036</b>        | Nitrogen | <b>133.5</b> | <b>283.0</b> |
| N <sub>3</sub> -125 %RDN  | 2102                            | 1980                            | 1983                            | <b>2022</b>        | S X N    | <b>231.3</b> | <b>NS</b>    |
| <b>Mean (spacing)</b>     | <b>2021</b>                     | <b>1753</b>                     | <b>1865</b>                     |                    |          |              |              |

Basic parameters: pH: 6.5–7.5, EC: 0.5 dS m<sup>-1</sup>, OC (%): 0.3, Available N: 105 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 48 kg/ha, Available K<sub>2</sub>O: 260 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: KCH-9221 BG.II, Environment: Rainfed, Total rainfall during cropping period: 744.5 mm



**WARANGAL KCH-9223BG.II**

The results of agronomic requirements of KCH-9223BG.II trial conducted at RARS, Warangal under irrigated conditions revealed that KCH-9223BG.II cotton hybrid produced significantly at par seed cotton yield 2494 kg/ha with a spacing of 90x30 cm (37,037 plants/ha) and of 90 x45 with 24,691 plants /ha (2375 kg/ha) and less seed cotton yield (2174 kg /ha ) recorded in 90x60 cm spacing with 18,518 plants/ha. (Table 76). Application of Nitrogen 120 and 150 kg/ha recorded seed cotton yield 2397 and 2371 kg/ha and 90 kg/ha Nitrogen application recorded 2274 kg/ha seed cotton yield. Among the Nitrogen fertilizer level seed cotton yield was found to be non significant. The interaction among different plant geometries and nitrogen levels was found to be non significant

**Table 76. Seed cotton yield (kg/ha) of KCH-9223BG.II as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                | S <sub>1</sub> :<br>90x30 cm | S <sub>2</sub> :<br>90x45 cm | S <sub>3</sub> :<br>90x60 cm | Mean<br>(Nitrogen) | ANOVA    | SE d         | CD<br>(5%) |
|---------------------------|------------------------------|------------------------------|------------------------------|--------------------|----------|--------------|------------|
| N <sub>1</sub> - 75 %RDN  | 2423                         | 2268                         | 2130                         | <b>2274</b>        | Spacing  | <b>58.5</b>  | <b>124</b> |
| N <sub>2</sub> - 100 %RDN | 2542                         | 2448                         | 2201                         | <b>2397</b>        | Nitrogen | <b>58.5</b>  | <b>NS</b>  |
| N <sub>3</sub> -125 %RDN  | 2516                         | 2408                         | 2189                         | <b>2371</b>        | S X N    | <b>101.3</b> | <b>NS</b>  |
| <b>Mean (spacing)</b>     | <b>2494</b>                  | <b>2375</b>                  | <b>2174</b>                  |                    |          |              |            |

Basic parameters: pH: 6.5–7.5, EC: 0.5 dS m<sup>-1</sup>, OC (%): 0.4, Available N: 105 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 48 kg/ha, Available K<sub>2</sub>O: 260 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: KCH-9223 BG.II, Environment: Rainfed, Total rainfall during cropping period: 744.5 mm

**WARANGAL**

The results of agronomic requirements of KCH-9225BG.II trial conducted at RARS, Warangal under irrigated conditions revealed that KCH-9225BG.II cotton hybrid produced significantly at par seed cotton yield 2054 kg/ha with a spacing of 90x30 cm (37,037 plants/ha) and of 90 x45 with 24,691 plants /ha (1824 kg/ha) and less seed cotton yield (1728 kg /ha) recorded in 90x60 cm spacing with 18,518 plants/ha (Table 77). Application of Nitrogen 120 and 150 kg/ha recorded a statistically at par seed cotton yield 2002 and 2056 kg/ha and 90 kg/ha nitrogen application recorded 1548kg/ha seed cotton yield. The interaction among different plant geometries and nitrogen levels was found to be non-significant.

**Table 77. Seed cotton yield (kg/ha) of KCH-9223BG.II as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                | S <sub>1</sub> :<br>90x30 cm | S <sub>2</sub> :<br>90x45 cm | S <sub>3</sub> :<br>90x60 cm | Mean<br>(Nitrogen) | ANOVA    | SE d         | CD<br>(5%) |
|---------------------------|------------------------------|------------------------------|------------------------------|--------------------|----------|--------------|------------|
| N <sub>1</sub> - 75 %RDN  | 1806                         | 1482                         | 1356                         | <b>1548</b>        | Spacing  | <b>111.3</b> | <b>236</b> |
| N <sub>2</sub> - 100 %RDN | 2255                         | 1883                         | 1867                         | <b>2002</b>        | Nitrogen | <b>111.3</b> | <b>236</b> |
| N <sub>3</sub> -125 %RDN  | 2100                         | 2107                         | 1960                         | <b>2056</b>        | S X N    | <b>192.8</b> | <b>NS</b>  |
| <b>Mean (spacing)</b>     | <b>2054</b>                  | <b>1824</b>                  | <b>1728</b>                  |                    |          |              |            |

Basic parameters: pH: 6.5–7.5, EC: 0.5 dS m<sup>-1</sup>, OC (%): 0.4, Available N: 105 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 48 kg/ha, Available K<sub>2</sub>O: 260 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: KCH-9225 BG.II, Environment: Rainfed, Total rainfall during cropping period: 744.5 mm



**WARANGAL**

The results of agronomic requirements of NCB 1821 BG-II trial conducted at RARS, Warangal under irrigated conditions revealed that NCB 1821 BG-II (**Check**) cotton hybrid produced significantly at par seed cotton yield 2147 kg/ha with a spacing of 90x30 cm (37,037 plants/ha) and of 90 x45 with 24,691 plants /ha (1963 kg/ha) and less seed cotton 1750kg /ha recorded in 90x60 cm spacing with 18,518 plants/ha . (Table 78). Application of Nitrogen 120 and 150 kg/ha recorded statistically at par seed cotton yield 2181 and 2066 kg/ha and 90 kg/ha nitrogen application recorded 1613kg/ha seed cotton yield. The interaction among different plant geometries and nitrogen levels was found to be non significant

**Table 78. Seed cotton yield (kg/ha) of NCB 1821 BG-II as influenced by spacing levels and nutrient levels at Warangal**

| Treatments                | S <sub>1</sub> :<br>90x30<br>cm | S <sub>2</sub> :<br>90x45<br>cm | S <sub>3</sub> :<br>90x60<br>cm | Mean<br>(Nitrogen) | ANOVA    | SE d         | CD (5%)    |
|---------------------------|---------------------------------|---------------------------------|---------------------------------|--------------------|----------|--------------|------------|
| N <sub>1</sub> - 75 %RDN  | 1852                            | 1652                            | 1336                            | <b>1613</b>        | Spacing  | <b>88.7</b>  | <b>188</b> |
| N <sub>2</sub> - 100 %RDN | 2378                            | 2135                            | 2029                            | <b>2181</b>        | Nitrogen | <b>88.7</b>  | <b>188</b> |
| N <sub>3</sub> -125 %RDN  | 2212                            | 2102                            | 1885                            | <b>2066</b>        | S X N    | <b>153.6</b> | <b>NS</b>  |
| <b>Mean (spacing)</b>     | <b>2147</b>                     | <b>1963</b>                     | <b>1750</b>                     |                    |          |              |            |

Basic parameters: pH: 6.5–7.5, EC: 0.5 dS m<sup>-1</sup>, OC (%): 0.3, Available N: 105 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 48 kg/ha, Available K<sub>2</sub>O: 260 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: NCB1821 BG.II (Check), Environment: Rainfed, Total rainfall during cropping period: 744.5 mm



## Initial Evaluation Trial of Compact Intra-Hirsutum Bt Hybrids - Irrigated

### *Constitution of Trial*

The trial was constituted with two Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids at closer spacing and one zonal check hybrid in normal spacing as furnished below.

| S. No. | Code-I | Code -II | Entries                              | Sponsored by                     |
|--------|--------|----------|--------------------------------------|----------------------------------|
| 1      | 3      | 55081    | VPCH-474 BG II                       | Vanapamula Seeds Pvt. Ltd.       |
| 2      | 1      | 55082    | <b>NBC 1821 BGII (ZC 1)</b>          |                                  |
| 3      | 4      | 55083    | <b>VSCH 369 BGII (ZC 2)</b>          |                                  |
| 4      | 2      | 55084    | ACH-31-2 BGII                        | Ajeet Seeds Pvt Ltd., Aurangabad |
| 5      |        |          | <b>NBC 1821 BGII (ZC 1) (normal)</b> |                                  |

The trial was conducted in five locations viz., Warangal, Lam, Raichur, B'Gudi\*\*, and Coimbatore.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** All the coded entries were given a spacing of 90 x 15 cm and one zonal check hybrid was given recommended spacing for the hybrid.

**Number of rows:** 6 rows of 6 meters per entry with three replications

### Data recorded:

#### Biometric evaluation

**Table: Plant height (cm) at harvest in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam   | Raichur | Coimbatore | Mean         |
|--------|--------------------------------------|----------|-------|---------|------------|--------------|
| 1      | VPCH-474 BG II                       | 108.8    | 89.9  | 99.1    | 71.9       | <b>92.4</b>  |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 101.8    | 115.7 | 92.7    | 71.7       | <b>95.5</b>  |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 109.5    | 103.8 | 96.9    | 75.1       | <b>96.3</b>  |
| 4      | ACH-31-2 BGII                        | 105.3    | 108.4 | 98.5    | 68.2       | <b>95.1</b>  |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 122.0    | 103.9 | 110.8   | 90.8       | <b>106.9</b> |
|        | CD @ 5%                              | 12.9     | NS    | 5.5     | 10.9       |              |
|        | CV %                                 | 7.6      | 11.6  | 7.1     | 9.4        |              |



**Table: Number of monopodia in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|------|---------|------------|------------|
| 1      | VPCH-474 BG II                       | 0.1      | 0.1  | 0.1     | 0.2        | <b>0.1</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 0.1      | 0.2  | 0.5     | 0.1        | <b>0.2</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 0.1      | 0.1  | 0.4     | 0.2        | <b>0.2</b> |
| 4      | ACH-31-2 BGII                        | 0.1      | 0.1  | 0.3     | 0.0        | <b>0.1</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 0.5      | 0.1  | 1.7     | 0.7        | <b>0.8</b> |
|        | CD @ 5%                              | 0.3      | 0.0  | 0.3     | 0.4        |            |
|        | CV %                                 | 119.9    | 12.1 | 20.0    | 98.1       |            |

**Table: Number of sympodia in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | VPCH-474 BG II                       | 11.6     | 11.8 | 10.4    | 10.1       | <b>11.0</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 11.5     | 14.0 | 11.9    | 10.5       | <b>12.0</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 10.7     | 10.6 | 10.1    | 9.8        | <b>10.3</b> |
| 4      | ACH-31-2 BGII                        | 12.6     | 12.1 | 10.7    | 10.3       | <b>11.4</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 16.5     | 9.1  | 14.7    | 14.2       | <b>13.6</b> |
|        | CD @ 5%                              | 2.8      | 2.5  | 1.0     | 1.5        |             |
|        | CV %                                 | 14.4     | 14.2 | 11.1    | 8.8        |             |

**Table: Boll weight (g) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|------|---------|------------|------------|
| 1      | VPCH-474 BG II                       | 5.6      | 5.5  | 8.3     | 6.9        | <b>6.6</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 4.9      | 5.6  | 7.8     | 6.2        | <b>6.1</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 5.1      | 4.9  | 6.2     | 5.4        | <b>5.4</b> |
| 4      | ACH-31-2 BGII                        | 4.9      | 5.0  | 7.6     | 5.6        | <b>5.8</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 5.1      | 4.8  | 6.8     | 5.9        | <b>5.7</b> |
|        | CD @ 5%                              | 0.5      | NS   | 0.4     | 0.6        |            |
|        | CV %                                 | 6.3      | 13.3 | 7.1     | 6.3        |            |



**Table: Number of bolls / plant in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | VPCH-474 BG II                       | 8.2      | 14.0 | 14.0    | 8.2        | <b>11.1</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 9.1      | 11.0 | 12.7    | 8.9        | <b>10.4</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 8.0      | 10.4 | 15.7    | 10.1       | <b>11.1</b> |
| 4      | ACH-31-2 BGII                        | 10.2     | 11.3 | 14.0    | 9.2        | <b>11.2</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 19.7     | 7.7  | 31.0    | 18.0       | <b>19.1</b> |
|        | CD @ 5%                              | 4.1      | 2.4  | 3.2     | 3.6        |             |
|        | CV %                                 | 23.7     | 14.3 | 19.6    | 21.4       |             |

**Table: Number of bolls / sq.m. in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|------------|-------------|
| 1      | VPCH-474 BG II                       | 56.3     | 84.0 | 60.7       | <b>67.0</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 63.8     | 66.0 | 65.9       | <b>65.2</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 55.2     | 62.4 | 74.8       | <b>64.1</b> |
| 4      | ACH-31-2 BGII                        | 69.0     | 67.5 | 68.1       | <b>68.2</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 42.9     | 45.9 | 44.7       | <b>44.5</b> |
|        | CD @ 5%                              | NS       | 14.1 | 15.2       |             |
|        | CV %                                 | 21.1     | 13.9 | 15.7       |             |

**Table: Lint Index (g) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|------|---------|------------|------------|
| 1      | VPCH-474 BG II                       | 6.1      | 6.0  | 7.4     | 7.4        | <b>6.7</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 5.4      | 6.5  | 6.0     | 7.1        | <b>6.3</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 6.6      | 6.5  | 6.8     | 7.9        | <b>7.0</b> |
| 4      | ACH-31-2 BGII                        | 5.2      | 7.0  | 6.3     | 6.7        | <b>6.3</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 5.4      | 7.5  | 6.0     | 7.2        | <b>6.5</b> |
|        | CD @ 5%                              | 0.8      | NS   | 3.2     | 0.3        |            |
|        | CV %                                 | 8.4      | 10.1 | 13.9    | 2.8        |            |

**Table: Seed Index (g) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | VPCH-474 BG II                       | 12.8     | 11.0 | 13.3    | 13.4       | <b>12.6</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 12.1     | 10.8 | 13.1    | 13.6       | <b>12.4</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 10.7     | 11.0 | 10.4    | 11.3       | <b>10.9</b> |
| 4      | ACH-31-2 BGII                        | 11.0     | 12.0 | 11.9    | 12.3       | <b>11.8</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 12.1     | 13.1 | 11.2    | 13.1       | <b>12.4</b> |
|        | CD @ 5%                              | 1.2      | NS   | 0.6     | 0.6        |             |
|        | CV %                                 | 6.5      | 10.7 | 6.5     | 2.9        |             |



Table: Ginning outturn (%) in H X H hybrids

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | VPCH-474 BG II                       | 32.4     | 34.9 | 35.7    | 35.5       | <b>34.6</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 31.0     | 37.4 | 31.3    | 34.4       | <b>33.5</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 38.2     | 36.5 | 39.8    | 41.2       | <b>38.9</b> |
| 4      | ACH-31-2 BGII                        | 32.2     | 35.7 | 34.6    | 35.2       | <b>34.4</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 30.9     | 35.5 | 34.8    | 35.3       | <b>34.1</b> |
|        | CD @ 5%                              | 2.4      | NS   | 1.4     | 1.3        |             |
|        | CV %                                 | 4.6      | 5.3  | 5.2     | 2.4        |             |

Table: Upper Half Mean Length (mm) in H X H hybrids

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | VPCH-474 BG II                       | 29.9     | 29.2 | 31.2    | 31.6       | <b>30.5</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 29.5     | 28.5 | 31.7    | 30.6       | <b>30.1</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 26.5     | 29.6 | 28.8    | 27.2       | <b>28.0</b> |
| 4      | ACH-31-2 BGII                        | 27.7     | 30.1 | 30.6    | 30.4       | <b>29.7</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 28.6     | 30.0 | 30.8    | 30.7       | <b>30.0</b> |

Table: Uniformity index under HVI Mode in H X H hybrids

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | VPCH-474 BG II                       | 85.0     | 86.0 | 87.0    | 85.5       | <b>85.9</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 84.0     | 82.0 | 87.0    | 85.9       | <b>84.7</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 83.0     | 85.0 | 86.0    | 85.3       | <b>84.8</b> |
| 4      | ACH-31-2 BGII                        | 84.0     | 85.0 | 87.0    | 86.2       | <b>85.6</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 85.0     | 85.0 | 86.0    | 85.0       | <b>85.3</b> |

Table: Micronaire under HVI Mode in H X H hybrids

| S. No. | Entries                              | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|-----|---------|------------|------------|
| 1      | VPCH-474 BG II                       | 4.4      | 5.1 | 4.7     | 4.6        | <b>4.7</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 4.2      | 5.3 | 4.3     | 4.3        | <b>4.5</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 5.1      | 5.5 | 5.4     | 5.5        | <b>5.4</b> |
| 4      | ACH-31-2 BGII                        | 4.5      | 5.0 | 4.5     | 4.3        | <b>4.6</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 4.2      | 4.9 | 4.4     | 4.5        | <b>4.5</b> |





**Table: Tenacity under HVI Mode in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | VPCH-474 BG II                       | 30.8     | 30.1 | 31.6    | 30.2       | <b>30.7</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 30.5     | 30.7 | 32.9    | 29.7       | <b>31.0</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 28.5     | 33.8 | 28.8    | 26.9       | <b>29.5</b> |
| 4      | ACH-31-2 BGII                        | 30.2     | 33.8 | 31.2    | 29.1       | <b>31.1</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 30.7     | 31.8 | 31.1    | 30.0       | <b>30.9</b> |

**Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam   | Coimbatore | Mean         |
|--------|--------------------------------------|----------|-------|------------|--------------|
| 1      | VPCH-474 BG II                       | 11.22    | 14.80 | 23.32      | <b>16.45</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 10.55    | 19.58 | 21.24      | <b>17.12</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 10.37    | 14.12 | 20.39      | <b>14.96</b> |
| 4      | ACH-31-2 BGII                        | 12.44    | 11.34 | 22.60      | <b>15.46</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 5.21     | 10.63 | 13.13      | <b>9.66</b>  |
|        | CD @ 5%                              | 2.55     | 2.29  | 3.80       |              |
|        | CV %                                 | 16.45    | 10.43 | 12.15      |              |

**Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam   | Coimbatore | Mean        |
|--------|--------------------------------------|----------|-------|------------|-------------|
| 1      | VPCH-474 BG II                       | 9.62     | 7.97  | 8.81       | <b>8.80</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 7.87     | 10.54 | 8.70       | <b>9.04</b> |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 7.84     | 7.61  | 12.35      | <b>9.27</b> |
| 4      | ACH-31-2 BGII                        | 6.31     | 6.11  | 3.29       | <b>5.24</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 5.87     | 5.72  | 10.93      | <b>7.51</b> |
|        | CD @ 5%                              | 2.04     | 1.21  | 3.20       |             |
|        | CV %                                 | 17.46    | 10.26 | 23.27      |             |

**Table: Total Seed Cotton Yield (q/ha) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam   | Raichur | Coimbatore | Mean         | R | %     |
|--------|--------------------------------------|----------|-------|---------|------------|--------------|---|-------|
| 1      | VPCH-474 BG II                       | 20.84    | 22.77 | 54.49   | 32.13      | <b>32.56</b> | 1 | 2.3   |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 18.42    | 30.12 | 45.31   | 29.95      | <b>30.95</b> | 3 | -2.7  |
| 3      | <b>VSCH 369 BGII (ZC 2)</b>          | 18.21    | 21.73 | 54.59   | 32.74      | <b>31.82</b> | 2 | 0.0   |
| 4      | ACH-31-2 BGII                        | 18.75    | 17.45 | 50.26   | 25.89      | <b>28.09</b> | 4 | -11.7 |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 11.08    | 16.35 | 32.43   | 24.06      | <b>20.98</b> | 5 | -34.1 |
|        | CD @ 5%                              | 3.13     | 3.53  | 4.58    | 4.10       |              |   |       |
|        | CV %                                 | 11.51    | 10.46 | 12.54   | 9.22       |              |   |       |



## Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions –Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|-----------------------------------|------|------|------|-------------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 1.13                              | 1.80 | 2.15 | 5.97 | <b>2.76</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 1.00                              | 1.66 | 1.44 | 6.80 | <b>2.73</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 1.23                              | 1.40 | 2.11 | 5.42 | <b>2.54</b> | BETL   |
| ACH-31-2 BGII        | 1.37                              | 1.37 | 2.10 | 5.63 | <b>2.62</b> | BETL   |
| CHECK                | 1.40                              | 1.33 | 2.21 | 7.27 | <b>3.05</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions –Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 2.03                                   | 0.38 | 1.44 | 1.73 | <b>1.40</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 2.63                                   | 0.13 | 1.87 | 1.87 | <b>1.63</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 2.57                                   | 0.11 | 2.19 | 1.40 | <b>1.57</b> | BETL   |
| ACH-31-2 BGII        | 2.47                                   | 0.20 | 1.97 | 1.38 | <b>1.51</b> | BETL   |
| CHECK                | 1.97                                   | 0.24 | 2.31 | 1.42 | <b>1.49</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |    |      | Remark |
|----------------------|-----------|----|-----|----|------|--------|
|                      | GU        | RA | CBE | WR | Mean |        |
| VPCH-474 BG II       | II        | I  | I   | II | II   |        |
| NBC 1821 BGII (ZC 1) | I         | I  | I   | I  | I    |        |
| VSCH 369 BGII (ZC 2) | I         | I  | I   | II | I    |        |
| ACH-31-2 BGII        | I         | I  | I   | I  | I    |        |
| CHECK                | I         | I  | I   | I  | I    |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|------------------------------------|------|------|------|-------------|--------|
|                      | GU                                 | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 4.30                               | 3.42 | 0.88 | 4.47 | <b>3.27</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 5.90                               | 4.61 | 0.92 | 4.40 | <b>3.96</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 4.50                               | 4.07 | 1.18 | 3.97 | <b>3.43</b> | BETL   |
| ACH-31-2 BGII        | 5.83                               | 4.37 | 1.92 | 4.82 | <b>4.23</b> | BETL   |
| CHECK                | 4.55                               | 4.24 | 1.35 | 5.70 | <b>3.96</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.17                                 | 0.13 | 0.50 | 2.13 | <b>0.73</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.13                                 | 0.06 | 0.00 | 1.67 | <b>0.46</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.03                                 | 0.00 | 0.68 | 1.15 | <b>0.47</b> | BETL   |
| ACH-31-2 BGII        | 0.07                                 | 0.13 | 0.63 | 1.15 | <b>0.50</b> | BETL   |
| CHECK                | 0.00                                 | 0.02 | 0.58 | 1.33 | <b>0.48</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.00                        | 0.90 | 0.07 | 0.07 | <b>0.26</b> |        |
| NBC 1821 BGII (ZC 1) | 0.20                        | 0.45 | 0.08 | 0.08 | <b>0.20</b> |        |
| VSCH 369 BGII (ZC 2) | 0.07                        | 0.78 | 0.08 | 0.08 | <b>0.25</b> |        |
| ACH-31-2 BGII        | 0.10                        | 2.13 | 0.08 | 0.13 | <b>0.61</b> |        |
| CHECK                | 0.17                        | 0.56 | 0.12 | 0.07 | <b>0.23</b> |        |

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**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ACH-31-2 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CHECK                | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

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**Table-407- Initial H X H (Compact) trial in South Zone under Protected Conditions-Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|----------------------|----------------------------------|------|------|------|-------------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ACH-31-2 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CHECK                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – *Spodoptera litura*

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |      | Remark |
|----------------------|-----------------------------------------|------|------|------|------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean |        |
| VPCH-474 BG II       | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| NBC 1821 BGII (ZC 1) | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| VSCH 369 BGII (ZC 2) | 0.07                                    | 0.00 | 0.00 | 0.00 | 0.02 | BETL   |
| ACH-31-2 BGII        | 0.20                                    | 0.00 | 0.00 | 0.00 | 0.05 | BETL   |
| CHECK                | 0.10                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Pink Bollworm

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |      | Remark |
|----------------------|---------------------------------------------------------|------|------|------|------|--------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean |        |
| VPCH-474 BG II       | 0.67                                                    | 0.42 | 0.00 | 1.83 | 0.73 | BETL   |
| NBC 1821 BGII (ZC 1) | 1.17                                                    | 0.34 | 0.00 | 1.25 | 0.69 | BETL   |
| VSCH 369 BGII (ZC 2) | 1.00                                                    | 0.25 | 0.25 | 1.08 | 0.65 | BETL   |
| ACH-31-2 BGII        | 0.50                                                    | 0.25 | 0.25 | 1.50 | 0.63 | BETL   |
| CHECK                | 0.67                                                    | 0.08 | 0.00 | 1.75 | 0.63 | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |      | Remark |
|----------------------|-----------------------------------------|------|------|------|------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean |        |
| VPCH-474 BG II       | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| ACH-31-2 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CHECK                | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |      |       |      | Remark |
|----------------------|-------------------------------------------------------|------|------|-------|------|--------|
|                      | GU                                                    | RA   | CBE  | WR    | Mean |        |
| VPCH-474 BG II       | 6.67                                                  | 2.35 | 5.00 | 10.00 | 6.00 | BETL   |
| NBC 1821 BGII (ZC 1) | 8.33                                                  | 2.02 | 1.25 | 9.17  | 5.19 | BETL   |
| VSCH 369 BGII (ZC 2) | 8.33                                                  | 1.83 | 5.00 | 7.50  | 5.66 | BETL   |
| ACH-31-2 BGII        | 6.67                                                  | 1.49 | 3.75 | 10.00 | 5.48 | BETL   |
| CHECK                | 6.67                                                  | 1.53 | 1.25 | 10.00 | 4.86 | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Open Boll Damage

| Name of Entry        | Open Boll Damage (%) |      |       |       |              | Remark |
|----------------------|----------------------|------|-------|-------|--------------|--------|
|                      | GU                   | RA   | CBE   | WR    | Mean         |        |
| VPCH-474 BG II       | 7.14                 | 4.23 | 4.88  | 13.75 | <b>7.50</b>  |        |
| NBC 1821 BGII (ZC 1) | 6.00                 | 4.04 | 10.64 | 20.00 | <b>10.17</b> |        |
| VSCH 369 BGII (ZC 2) | 5.89                 | 3.89 | 9.61  | 18.75 | <b>9.54</b>  |        |
| ACH-31-2 BGII        | 7.55                 | 3.79 | 6.99  | 17.50 | <b>8.96</b>  |        |
| CHECK                | 8.16                 | 4.25 | 4.61  | 35.00 | <b>13.01</b> |        |

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Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Locule Damage

| Name of Entry        | Locule Damage (%) |      |      |      |             | Remark |
|----------------------|-------------------|------|------|------|-------------|--------|
|                      | GU                | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 4.15              | 3.26 | 2.04 | 3.46 | <b>3.23</b> |        |
| NBC 1821 BGII (ZC 1) | 1.96              | 3.04 | 3.16 | 5.13 | <b>3.32</b> |        |
| VSCH 369 BGII (ZC 2) | 2.20              | 2.95 | 4.90 | 6.08 | <b>4.03</b> |        |
| ACH-31-2 BGII        | 2.56              | 2.96 | 1.92 | 5.29 | <b>3.18</b> |        |
| CHECK                | 4.08              | 3.65 | 2.52 | 6.80 | <b>4.26</b> |        |

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Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests

| Name of Entry        | Number of sprays for Insect-pests |      |      |      |             | Remark |
|----------------------|-----------------------------------|------|------|------|-------------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| NBC 1821 BGII (ZC 1) | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| VSCH 369 BGII (ZC 2) | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| ACH-31-2 BGII        | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| CHECK                | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |

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## Reaction to Diseases

**Table 4(a) Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Irrigated (IET-Compact IRR) under Protected conditions**

| Code-I | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |     |    |
|--------|----------------------|-----------------------------------------------------------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|-----|----|
|        |                      | LAM, Guntur                                               |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |     |    |
|        |                      | CoLS                                                      |    | GM   |    | Rust |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    | CLS |    |
|        |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR | PDI | DR |
| 3      | VPCH-474 BG II       | 26.2                                                      | MR | 30.8 | MR | 11.5 | R  | 5.9                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | DF | 2.3 | R  |
| 1      | NBC 1821 BGII (ZC 1) | 29.0                                                      | MR | 28.8 | MR | 31.5 | MR | 6.4                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | DF | 0.0 | DF |
| 4      | VSCH 369 BGII (ZC 2) | 28.3                                                      | MR | 29.7 | MR | 31.3 | MR | 6.8                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | DF | 0.9 | R  |
| 2      | ACH-31-2 BGII        | 22.8                                                      | R  | 27.8 | MR | 14.4 | R  | 6.1                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | DF | 1.5 | R  |

**Table 4 (b) Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Irrigated (IET-Compact IRR) under Protected conditions**

| Code-I | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |
|--------|----------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|
|        |                      | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    |
|        |                      | ALS                                                       |    | CoLS |    | GM   |    | Rust |    | TSV |    |
|        |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 3      | VPCH-474 BG II       | 2.4                                                       | R  | 4.4  | R  | 12.8 | R  | 26.8 | MR | 1.4 | R  |
| 1      | NBC 1821 BGII (ZC 1) | 2.3                                                       | R  | 4.0  | R  | 11.6 | R  | 26.8 | MR | 2.4 | R  |
| 4      | VSCH 369 BGII (ZC 2) | 3.8                                                       | R  | 3.6  | R  | 13.0 | R  | 27.8 | MR | 0.9 | R  |
| 2      | ACH-31-2 BGII        | 3.4                                                       | R  | 4.0  | R  | 13.3 | R  | 27.5 | MR | 1.5 | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
Aphid

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |       |             | Remark |
|----------------------|-----------------------------------|------|------|-------|-------------|--------|
|                      | GU                                | RA   | CBE  | WR    | Mean        |        |
| VPCH-474 BG II       | 5.57                              | 2.11 | 7.61 | 7.40  | <b>5.67</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 6.07                              | 2.61 | 5.86 | 9.80  | <b>6.08</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 5.23                              | 2.23 | 5.10 | 8.67  | <b>5.31</b> | BETL   |
| ACH-31-2 BGII        | 7.60                              | 2.09 | 4.80 | 10.60 | <b>6.27</b> | BETL   |
| CHECK                | 4.87                              | 2.13 | 4.34 | 9.93  | <b>5.32</b> | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –Leafhopper

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |       |             | Remark |
|----------------------|----------------------------------------|------|------|-------|-------------|--------|
|                      | GU                                     | RA   | CBE  | WR    | Mean        |        |
| VPCH-474 BG II       | 9.18                                   | 3.92 | 3.19 | 3.33  | <b>4.91</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 10.77                                  | 6.42 | 2.88 | 11.33 | <b>7.85</b> | AETL   |
| VSCH 369 BGII (ZC 2) | 8.00                                   | 4.16 | 2.01 | 11.80 | <b>6.49</b> | AETL   |
| ACH-31-2 BGII        | 7.98                                   | 6.38 | 2.36 | 3.20  | <b>4.98</b> | BETL   |
| CHECK                | 6.33                                   | 5.79 | 3.09 | 3.47  | <b>4.67</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
JIG

| Name of Entry        | JIG/plant |     |     |     |      | Remark |
|----------------------|-----------|-----|-----|-----|------|--------|
|                      | GU        | RA  | CBE | WR  | Mean |        |
| VPCH-474 BG II       | IV        | I   | I   | III | II   |        |
| NBC 1821 BGII (ZC 1) | IV        | I   | I   | III | II   |        |
| VSCH 369 BGII (ZC 2) | III       | I   | I   | II  | II   |        |
| ACH-31-2 BGII        | III       | I   | I   | II  | II   |        |
| CHECK                | II        | III | I   | II  | II   |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions -Thrips

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|------------------------------------|------|------|------|-------------|--------|
|                      | GU                                 | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 5.97                               | 4.76 | 2.87 | 8.47 | <b>5.52</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 6.50                               | 4.22 | 2.73 | 8.13 | <b>5.40</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 7.00                               | 3.59 | 2.16 | 8.13 | <b>5.22</b> | BETL   |
| ACH-31-2 BGII        | 5.87                               | 4.90 | 2.46 | 8.67 | <b>5.47</b> | BETL   |
| CHECK                | 6.73                               | 4.57 | 2.00 | 8.80 | <b>5.53</b> | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Whitefly

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 1.23                                 | 1.43 | 1.08 | 0.60 | <b>1.09</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.50                                 | 0.68 | 0.82 | 0.80 | <b>0.70</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.63                                 | 1.17 | 1.49 | 0.60 | <b>0.97</b> | BETL   |
| ACH-31-2 BGII        | 1.30                                 | 0.84 | 1.22 | 0.60 | <b>0.99</b> | BETL   |
| CHECK                | 0.73                                 | 1.06 | 1.11 | 0.73 | <b>0.91</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Natural Enemies

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.23                        | 1.12 | 0.00 | 0.27 | <b>0.41</b> |        |
| NBC 1821 BGII (ZC 1) | 0.10                        | 1.01 | 0.13 | 0.07 | <b>0.33</b> |        |
| VSCH 369 BGII (ZC 2) | 0.17                        | 1.11 | 0.27 | 0.03 | <b>0.39</b> |        |
| ACH-31-2 BGII        | 0.13                        | 1.44 | 0.13 | 0.07 | <b>0.44</b> |        |
| CHECK                | 0.20                        | 0.45 | 0.20 | 0.07 | <b>0.23</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – *Helicoverpa armigera*

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| ACH-31-2 BGII        | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| CHECK                | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|----------------------|----------------------------------|------|------|------|-------------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ACH-31-2 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CHECK                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

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Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
*Spodoptera litura*

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.00                                    | 0.44 | 1.80 | 0.00 | <b>0.56</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.63                                    | 0.22 | 0.00 | 0.00 | <b>0.21</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.40                                    | 0.33 | 0.00 | 0.00 | <b>0.18</b> | BETL   |
| ACH-31-2 BGII        | 0.23                                    | 0.56 | 0.00 | 0.00 | <b>0.20</b> | BETL   |
| CHECK                | 0.47                                    | 0.89 | 0.00 | 0.00 | <b>0.34</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
Pink Bollworm

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |       |             | Remark |
|----------------------|---------------------------------------------------------|------|------|-------|-------------|--------|
|                      | GU                                                      | RA   | CBE  | WR    | Mean        |        |
| VPCH-474 BG II       | 4.33                                                    | 1.98 | 0.07 | 11.67 | <b>4.51</b> | AETL   |
| NBC 1821 BGII (ZC 1) | 6.33                                                    | 2.25 | 0.33 | 9.67  | <b>4.65</b> | AETL   |
| VSCH 369 BGII (ZC 2) | 5.33                                                    | 1.50 | 1.00 | 8.67  | <b>4.12</b> | AETL   |
| ACH-31-2 BGII        | 4.33                                                    | 1.66 | 0.73 | 10.67 | <b>4.35</b> | AETL   |
| CHECK                | 3.67                                                    | 1.69 | 0.33 | 8.67  | <b>3.59</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
Green Boll Damage due to ABW/SBW/TC

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| VPCH-474 BG II       | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ACH-31-2 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CHECK                | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
Green Boll Damage (Pink Bollworm)

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|--------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |        |
| VPCH-474 BG II       | 33.33                                                 | 5.66 | 10.00 | 53.33 | <b>25.58</b> | AETL   |
| NBC 1821 BGII (ZC 1) | 40.00                                                 | 5.82 | 7.50  | 50.00 | <b>25.83</b> | AETL   |
| VSCH 369 BGII (ZC 2) | 41.67                                                 | 5.04 | 15.00 | 46.67 | <b>27.09</b> | AETL   |
| ACH-31-2 BGII        | 38.33                                                 | 4.94 | 12.50 | 56.67 | <b>28.11</b> | AETL   |
| CHECK                | 31.67                                                 | 4.50 | 4.00  | 46.67 | <b>21.71</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | RA    | CBE   | WR    | Mean         |        |
| VPCH-474 BG II       | 56.22                | 10.95 | 20.51 | 35.00 | <b>30.67</b> |        |
| NBC 1821 BGII (ZC 1) | 61.78                | 12.34 | 35.10 | 45.00 | <b>38.56</b> |        |
| VSCH 369 BGII (ZC 2) | 50.24                | 9.69  | 16.25 | 35.00 | <b>27.79</b> |        |
| ACH-31-2 BGII        | 46.22                | 9.05  | 19.90 | 45.00 | <b>30.04</b> |        |
| CHECK                | 48.12                | 9.55  | 15.56 | 60.00 | <b>33.31</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
Locule Damage**

| Name of Entry        | Locule Damage (%) |       |       |       |              | Remark |
|----------------------|-------------------|-------|-------|-------|--------------|--------|
|                      | GU                | RA    | CBE   | WR    | Mean         |        |
| VPCH-474 BG II       | 32.14             | 8.96  | 13.52 | 14.71 | <b>17.33</b> |        |
| NBC 1821 BGII (ZC 1) | 29.67             | 10.35 | 17.09 | 14.63 | <b>17.93</b> |        |
| VSCH 369 BGII (ZC 2) | 20.48             | 7.70  | 5.65  | 11.82 | <b>11.41</b> |        |
| ACH-31-2 BGII        | 27.92             | 7.06  | 9.36  | 12.32 | <b>14.17</b> |        |
| CHECK                | 18.16             | 7.56  | 5.43  | 19.90 | <b>12.76</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table 4(c) Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Irrigated (IET-Compact IRR) under Unprotected conditions**

| Code-I | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |     |    |                     |    |     |    |     |    |      |    |
|--------|----------------------|-------------------------------------------------------------|----|------|----|------|----|-----|----|---------------------|----|-----|----|-----|----|------|----|
|        |                      | LAM, Guntur                                                 |    |      |    |      |    |     |    | CICR RS, Coimbatore |    |     |    |     |    |      |    |
|        |                      | CoLS                                                        |    | GM   |    | Rust |    | ALS |    | Boll rot            |    | GM  |    | TSV |    | Rust |    |
|        |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI | DR | PDI                 | DR | PDI | DR | PDI | DR | PDI  | DR |
| 3      | VPCH-474 BG II       | 28.5                                                        | MR | 34.5 | MR | 18.5 | R  | 5.5 | DF | 0.0                 | DF | 2.5 | R  | 0.0 | DF | 4.0  | R  |
| 1      | NBC 1821 BGII (ZC 1) | 29.3                                                        | MR | 30.5 | MR | 26.5 | MR | 6.0 | DF | 0.0                 | DF | 2.0 | R  | 0.0 | DF | 0.0  | DF |
| 4      | VSCH 369 BGII (ZC 2) | 30.5                                                        | MR | 31.0 | MR | 32.0 | MR | 5.0 | DF | 0.0                 | DF | 2.5 | R  | 0.0 | DF | 4.0  | R  |
| 2      | ACH-31-2 BGII        | 26.5                                                        | MR | 28.3 | MR | 18.0 | R  | 5.5 | DF | 0.0                 | DF | 2.0 | R  | 0.0 | DF | 0.0  | DF |

**Table 4(d) Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Irrigated (IET-Compact IRR) under Unprotected conditions**

| Code-I | Entries              | Average PDI & Disease Reaction (DR):Unprotected conditions |    |      |    |      |    |      |    |      |    |
|--------|----------------------|------------------------------------------------------------|----|------|----|------|----|------|----|------|----|
|        |                      | RARS, Warangal                                             |    |      |    |      |    |      |    |      |    |
|        |                      | ALS                                                        |    | CoLS |    | GM   |    | Rust |    | TSV  |    |
|        |                      | PDI                                                        | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 3      | VPCH-474 BG II       | 7.0                                                        | R  | 6.0  | R  | 20.0 | R  | 55.0 | MS | 10.0 | R  |
| 1      | NBC 1821 BGII (ZC 1) | 6.0                                                        | R  | 6.0  | R  | 23.0 | R  | 51.5 | MS | 17.5 | R  |
| 4      | VSCH 369 BGII (ZC 2) | 6.0                                                        | R  | 5.5  | R  | 19.0 | R  | 49.0 | MR | 11.3 | R  |
| 2      | ACH-31-2 BGII        | 7.0                                                        | R  | 2.0  | R  | 13.0 | R  | 45.0 | MR | 22.5 | R  |

## Advanced Evaluation Trial – I of Compact Intra-Hirsutum Bt Hybrids - Irrigated

### *Constitution of Trial*

The trial was constituted with two Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids at closer spacing and one zonal check hybrid in normal spacing as furnished below.

| S. No. | Code-I | Code -II | Entries                       | Sponsored by  |
|--------|--------|----------|-------------------------------|---------------|
| 1      | 3      | 55091    | VSCH 369 BGII (ZC 2)          |               |
| 2      | 1      | 55092    | NBC 1821 BGII (ZC 1)          |               |
| 3      | 4      | 55093    | Indam 2412 BGII               | Indo-American |
| 4      | 2      | 55094    | ACH 41-2 BGII                 | Ajeet seeds   |
| 5      |        |          | NBC 1821 BGII (ZC 1) (normal) |               |

The trial was conducted in five locations viz., Warangal, Lam, Raichur, B'Gudi\*, and Coimbatore.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** All the coded entries were given a spacing of 90 x 15 cm and one zonal check hybrid was given recommended spacing for the hybrid.

**Number of rows:** 12 rows of 6 meters per entry with three replications

### Data recorded:

#### Biometric evaluation

**Table: Plant height (cm) at harvest in H X H hybrids**

| S. No. | Entries                       | Warangal | Lam   | Raichur | Coimbatore | Mean         |
|--------|-------------------------------|----------|-------|---------|------------|--------------|
| 1      | VSCH 369 BGII (ZC 2)          | 111.9    | 109.7 | 99.5    | 89.7       | <b>102.7</b> |
| 2      | NBC 1821 BGII (ZC 1)          | 109.6    | 114.2 | 114.3   | 90.1       | <b>107.1</b> |
| 3      | Indam 2412 BGII               | 96.4     | 121.5 | 111.8   | 85.2       | <b>103.7</b> |
| 4      | ACH 41-2 BGII                 | 80.3     | 123.4 | 98.0    | 90.3       | <b>98.0</b>  |
| 5      | NBC 1821 BGII (ZC 1) (normal) | 114.3    | 115.9 | 128.7   | 112.6      | <b>117.9</b> |
|        | CD @ 5%                       | NS       | NS    | 6.7     | 13.5       |              |
|        | CV %                          | 22.3     | 13.9  | 7.9     | 9.3        |              |



**Table: Number of monopodia in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|------|---------|------------|------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 0.1      | 0.1  | 0.5     | 0.2        | <b>0.2</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 0.2      | 0.3  | 0.6     | 0.2        | <b>0.3</b> |
| 3      | Indam 2412 BGII                      | 0.1      | 0.2  | 0.4     | 0.2        | <b>0.2</b> |
| 4      | ACH 41-2 BGII                        | 0.1      | 0.2  | 0.3     | 0.1        | <b>0.2</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 0.6      | 0.1  | 1.9     | 1.0        | <b>0.9</b> |
|        | CD @ 5%                              | 0.2      | 0.0  | 0.3     | NS         |            |
|        | CV %                                 | 55.5     | 16.1 | 16.9    | 0.0        |            |

**Table: Number of sympodia in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 12.1     | 15.0 | 13.0    | 10.3       | <b>12.6</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 13.9     | 10.7 | 14.5    | 9.5        | <b>12.2</b> |
| 3      | Indam 2412 BGII                      | 13.4     | 12.7 | 15.0    | 9.3        | <b>12.6</b> |
| 4      | ACH 41-2 BGII                        | 13.1     | 13.9 | 15.0    | 9.7        | <b>12.9</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 17.1     | 11.0 | 18.4    | 12.7       | <b>14.8</b> |
|        | CD @ 5%                              | 2.0      | 2.0  | 1.4     | 2.3        |             |
|        | CV %                                 | 9.1      | 10.0 | 11.9    | 14.6       |             |

**Table: Boll weight (g) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|-----|---------|------------|------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 5.2      | 5.6 | 7.1     | 5.6        | <b>5.9</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 5.2      | 4.5 | 7.6     | 6.1        | <b>5.9</b> |
| 3      | Indam 2412 BGII                      | 5.2      | 4.6 | 7.9     | 6.1        | <b>6.0</b> |
| 4      | ACH 41-2 BGII                        | 4.3      | 4.3 | 6.4     | 5.3        | <b>5.1</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 4.9      | 4.6 | 6.9     | 6.5        | <b>5.7</b> |
|        | CD @ 5%                              | 0.4      | 0.7 | 0.3     | 0.4        |            |
|        | CV %                                 | 4.5      | 9.0 | 4.9     | 4.9        |            |

**Table: Number of bolls / plant in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 13.3     | 15.8 | 16.3    | 14.2       | <b>14.9</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 12.8     | 12.8 | 15.3    | 13.1       | <b>13.5</b> |
| 3      | Indam 2412 BGII                      | 14.2     | 10.3 | 16.3    | 11.2       | <b>13.0</b> |
| 4      | ACH 41-2 BGII                        | 13.9     | 9.0  | 15.5    | 13.5       | <b>13.0</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 21.1     | 10.8 | 38.7    | 21.5       | <b>23.0</b> |
|        | CD @ 5%                              | 4.2      | 1.9  | 4.2     | 3.1        |             |
|        | CV %                                 | 18.0     | 10.6 | 20.0    | 13.7       |             |



**Table: Number of bolls / sq.m. in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 92.6     | 94.5 | 104.8      | <b>97.3</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 88.4     | 76.5 | 97.0       | <b>87.3</b> |
| 3      | Indam 2412 BGII                      | 98.1     | 61.5 | 83.0       | <b>80.9</b> |
| 4      | ACH 41-2 BGII                        | 94.1     | 54.0 | 100.0      | <b>82.7</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 27.1     | 64.3 | 53.0       | <b>48.1</b> |
|        | CD @ 5%                              | 25.5     | 11.5 | 20.1       |             |
|        | CV %                                 | 20.5     | 10.6 | 14.9       |             |

**Table: Lint Index (g) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|------|---------|------------|------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 6.4      | 5.5  | 6.8     | 8.0        | <b>6.7</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 5.2      | 5.6  | 6.3     | 6.9        | <b>6.0</b> |
| 3      | Indam 2412 BGII                      | 5.1      | 4.9  | 6.0     | 6.5        | <b>5.6</b> |
| 4      | ACH 41-2 BGII                        | 5.0      | 5.1  | 6.7     | 7.2        | <b>6.0</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 5.7      | 5.5  | 6.5     | 7.1        | <b>6.2</b> |
|        | CD @ 5%                              | 0.7      | NS   | 0.2     | 0.4        |            |
|        | CV %                                 | 7.7      | 13.4 | 4.3     | 3.2        |            |

**Table: Seed Index (g) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 10.3     | 10.8 | 10.2    | 11.1       | <b>10.6</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 11.9     | 11.2 | 12.8    | 13.3       | <b>12.3</b> |
| 3      | Indam 2412 BGII                      | 10.5     | 10.4 | 12.2    | 12.7       | <b>11.5</b> |
| 4      | ACH 41-2 BGII                        | 9.8      | 10.5 | 11.5    | 11.8       | <b>10.9</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 11.5     | 11.7 | 12.0    | 13.3       | <b>12.1</b> |
|        | CD @ 5%                              | 1.3      | NS   | 0.4     | 0.9        |             |
|        | CV %                                 | 7.7      | 12.7 | 4.5     | 4.5        |             |

**Table: Ginning outturn (%) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 38.4     | 33.7 | 39.8    | 41.9       | <b>38.5</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 30.6     | 33.6 | 33.1    | 34.4       | <b>32.9</b> |
| 3      | Indam 2412 BGII                      | 32.7     | 30.7 | 33.0    | 34.0       | <b>32.6</b> |
| 4      | ACH 41-2 BGII                        | 34.0     | 32.8 | 36.9    | 37.8       | <b>35.4</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 33.1     | 31.9 | 35.2    | 34.8       | <b>33.8</b> |
|        | CD @ 5%                              | 2.8      | NS   | 1.4     | 1.7        |             |
|        | CV %                                 | 5.4      | 12.7 | 4.9     | 2.9        |             |



**Table: Upper Half Mean Length (mm) in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 26.9     | 27.2 | 28.9    | 27.2       | <b>27.6</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 28.7     | 30.5 | 30.8    | 30.7       | <b>30.2</b> |
| 3      | Indam 2412 BGII                      | 29.4     | 29.3 | 31.8    | 30.1       | <b>30.2</b> |
| 4      | ACH 41-2 BGII                        | 27.4     | 27.1 | 29.9    | 29.4       | <b>28.5</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 28.3     | 28.9 | 30.5    | 30.1       | <b>29.5</b> |

**Table: Uniformity index under HVI Mode in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 84.0     | 84.0 | 85.0    | 85.1       | <b>84.5</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 82.0     | 84.0 | 86.0    | 85.2       | <b>84.3</b> |
| 3      | Indam 2412 BGII                      | 83.0     | 84.0 | 87.0    | 85.3       | <b>84.8</b> |
| 4      | ACH 41-2 BGII                        | 83.0     | 84.0 | 86.0    | 85.2       | <b>84.6</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 83.0     | 84.0 | 87.0    | 85.0       | <b>84.8</b> |

**Table: Micronaire under HVI Mode in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|--------------------------------------|----------|-----|---------|------------|------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 5.2      | 5.4 | 5.1     | 5.3        | <b>5.3</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 4.3      | 4.5 | 4.8     | 3.9        | <b>4.4</b> |
| 3      | Indam 2412 BGII                      | 4.7      | 5.0 | 4.6     | 4.5        | <b>4.7</b> |
| 4      | ACH 41-2 BGII                        | 4.6      | 5.4 | 4.7     | 4.4        | <b>4.8</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 4.5      | 4.7 | 4.6     | 4.2        | <b>4.5</b> |

**Table: Tenacity under HVI Mode in H X H hybrids**

| S. No. | Entries                              | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|--------------------------------------|----------|------|---------|------------|-------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 28.9     | 26.8 | 30.0    | 26.2       | <b>28.0</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 30.6     | 32.5 | 33.2    | 31.4       | <b>31.9</b> |
| 3      | Indam 2412 BGII                      | 31.3     | 32.4 | 32.5    | 31.3       | <b>31.9</b> |
| 4      | ACH 41-2 BGII                        | 29.8     | 29.1 | 29.7    | 29.4       | <b>29.5</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 29.7     | 32.6 | 31.8    | 31.2       | <b>31.3</b> |



Table: Seed Cotton Yield at 140 DAS (q/ha) at 140 DAS in H X H hybrids

| S. No. | Entries                              | Warangal | Lam   | Coimbatore | Mean         |
|--------|--------------------------------------|----------|-------|------------|--------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 15.43    | 20.09 | 27.53      | <b>21.02</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 11.69    | 18.43 | 25.35      | <b>18.49</b> |
| 3      | Indam 2412 BGII                      | 12.03    | 17.44 | 26.36      | <b>18.61</b> |
| 4      | ACH 41-2 BGII                        | 15.78    | 15.05 | 32.15      | <b>20.99</b> |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 7.17     | 14.22 | 20.34      | <b>13.91</b> |
|        | CD @ 5%                              | 4.08     | 3.25  | 4.30       |              |
|        | CV %                                 | 21.10    | 12.24 | 10.62      |              |

Table: Seed Cotton Yield at 165 DAS (q/ha) in H X H hybrids

| S. No. | Entries                              | Warangal | Lam   | Coimbatore | Mean         |
|--------|--------------------------------------|----------|-------|------------|--------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 9.72     | 10.82 | 14.56      | <b>11.70</b> |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 10.71    | 9.92  | 9.50       | <b>10.04</b> |
| 3      | Indam 2412 BGII                      | 9.21     | 9.39  | 5.76       | <b>8.12</b>  |
| 4      | ACH 41-2 BGII                        | 7.05     | 8.10  | 4.74       | <b>6.63</b>  |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 7.38     | 7.66  | 14.36      | <b>9.80</b>  |
|        | CD @ 5%                              | 1.03     | 1.74  | 3.90       |              |
|        | CV %                                 | 7.53     | 12.19 | 25.66      |              |

Table: Total Seed Cotton Yield (q/ha) in H X H hybrids

| S. No. | Entries                              | Warangal | Lam   | Raichur | Coimbatore | Mean         | Rank | % Inc over best check |
|--------|--------------------------------------|----------|-------|---------|------------|--------------|------|-----------------------|
| 1      | <b>VSCH 369 BGII (ZC 2)</b>          | 25.15    | 33.18 | 50.64   | 42.09      | <b>37.77</b> | 1    | 0.0                   |
| 2      | <b>NBC 1821 BGII (ZC 1)</b>          | 22.40    | 28.09 | 44.01   | 34.85      | <b>32.34</b> | 3    | -14.4                 |
| 3      | Indam 2412 BGII                      | 21.25    | 26.83 | 41.73   | 32.12      | <b>30.48</b> | 4    | -19.3                 |
| 4      | ACH 41-2 BGII                        | 22.83    | 23.46 | 46.66   | 36.90      | <b>32.46</b> | 2    | -14.1                 |
| 5      | <b>NBC 1821 BGII (ZC 1) (normal)</b> | 14.55    | 22.07 | 34.58   | 34.70      | <b>26.48</b> | 5    | -29.9                 |
|        | CD @ 5%                              | 4.44     | 4.94  | 3.66    | NS         |              |      |                       |
|        | CV %                                 | 13.42    | 12.10 | 10.93   | 13.84      |              |      |                       |





## Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions –Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 2.03                              | 0.98 | 1.46 | 4.07 | <b>2.13</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.97                              | 1.25 | 1.79 | 3.75 | <b>1.94</b> | <b>BETL</b> |
| Indam 2412 BGII      | 1.37                              | 1.29 | 1.66 | 3.67 | <b>2.00</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 1.60                              | 2.05 | 1.54 | 5.73 | <b>2.73</b> | <b>BETL</b> |
| <b>Check</b>         | 1.30                              | 1.04 | 1.81 | 4.40 | <b>2.14</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions –Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 2.40                                   | 0.15 | 2.27 | 1.68 | <b>1.63</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 2.37                                   | 0.23 | 2.67 | 1.13 | <b>1.60</b> | <b>BETL</b> |
| Indam 2412 BGII      | 2.53                                   | 0.17 | 2.50 | 1.40 | <b>1.65</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 2.57                                   | 0.40 | 2.58 | 1.43 | <b>1.75</b> | <b>BETL</b> |
| <b>Check</b>         | 2.17                                   | 0.32 | 2.08 | 1.62 | <b>1.55</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions -JIG**

| Name of Entry        | JIG/plant |    |     |    |      | Remark |
|----------------------|-----------|----|-----|----|------|--------|
|                      | GU        | RA | CBE | WR | Mean |        |
| VSCH 369 BGII (ZC 2) | I         | I  | I   | I  | I    |        |
| NBC 1821 BGII (ZC 1) | I         | I  | I   | II | I    |        |
| Indam 2412 BGII      | I         | I  | I   | I  | I    |        |
| ACH 41-2 BGII        | I         | I  | I   | II | I    |        |
| <b>Check</b>         | I         | I  | I   | II | I    |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 4.17                               | 3.38 | 1.57 | 3.97 | <b>3.27</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 4.73                               | 3.27 | 1.47 | 4.75 | <b>3.55</b> | <b>BETL</b> |
| Indam 2412 BGII      | 5.07                               | 4.12 | 1.60 | 4.02 | <b>3.70</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 4.20                               | 4.15 | 0.65 | 3.78 | <b>3.20</b> | <b>BETL</b> |
| <b>Check</b>         | 4.27                               | 3.75 | 1.60 | 4.67 | <b>3.57</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Whitefly

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 0.10                                 | 0.12 | 0.58 | 0.53 | <b>0.33</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.17                                 | 0.08 | 0.57 | 0.97 | <b>0.45</b> | <b>BETL</b> |
| Indam 2412 BGII      | 0.13                                 | 0.04 | 0.69 | 1.05 | <b>0.48</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 0.07                                 | 0.14 | 1.00 | 1.11 | <b>0.58</b> | <b>BETL</b> |
| <b>Check</b>         | 0.03                                 | 0.12 | 0.82 | 1.27 | <b>0.56</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Natural Enemies

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |      | Remark |
|----------------------|-----------------------------|------|------|------|------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean |        |
| VSCH 369 BGII (ZC 2) | 0.10                        | 0.90 | 0.23 | 0.03 | 0.32 |        |
| NBC 1821 BGII (ZC 1) | 0.13                        | 0.67 | 0.27 | 0.12 | 0.30 |        |
| Indam 2412 BGII      | 0.20                        | 0.56 | 0.25 | 0.02 | 0.26 |        |
| ACH 41-2 BGII        | 0.17                        | 0.56 | 0.20 | 0.02 | 0.24 |        |
| <b>Check</b>         | 0.13                        | 1.01 | 0.22 | 0.03 | 0.35 |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – *Helicoverpa armigera*

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |      | Remark      |
|----------------------|--------------------------------------------|------|------|------|------|-------------|
|                      | GU                                         | RA   | CBE  | WR   | Mean |             |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| Indam 2412 BGII      | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| ACH 41-2 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| <b>Check</b>         | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |

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Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |      | Remark      |
|----------------------|----------------------------------|------|------|------|------|-------------|
|                      | GU                               | RA   | CBE  | WR   | Mean |             |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| Indam 2412 BGII      | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| ACH 41-2 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |
| <b>Check</b>         | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | <b>BETL</b> |

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**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.10                                    | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| Indam 2412 BGII      | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 0.03                                    | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| <b>Check</b>         | 0.17                                    | 0.00 | 0.00 | 0.00 | <b>0.04</b> | <b>BETL</b> |

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**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 0.83                                                    | 0.59 | 0.17 | 1.42 | <b>0.75</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 1.00                                                    | 0.50 | 0.33 | 1.17 | <b>0.75</b> | <b>BETL</b> |
| Indam 2412 BGII      | 1.17                                                    | 0.67 | 0.17 | 1.25 | <b>0.81</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 1.00                                                    | 0.42 | 0.33 | 1.58 | <b>0.83</b> | <b>BETL</b> |
| <b>Check</b>         | 0.50                                                    | 0.42 | 0.00 | 1.42 | <b>0.58</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Indam 2412 BGII      | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| <b>Check</b>         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |

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**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%)/ 10 bolls destructive sampling |      |       |       |             | Remark      |
|----------------------|------------------------------------------------------|------|-------|-------|-------------|-------------|
|                      | GU                                                   | RA   | CBE   | WR    | Mean        |             |
| VSCH 369 BGII (ZC 2) | 8.33                                                 | 3.09 | 10.00 | 8.33  | <b>7.44</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 8.33                                                 | 2.57 | 7.50  | 9.17  | <b>6.89</b> | <b>BETL</b> |
| Indam 2412 BGII      | 6.67                                                 | 2.54 | 8.75  | 10.00 | <b>6.99</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 6.67                                                 | 2.46 | 7.50  | 7.50  | <b>6.03</b> | <b>BETL</b> |
| <b>Check</b>         | 8.33                                                 | 2.71 | 3.75  | 10.00 | <b>6.20</b> | <b>BETL</b> |

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**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions –Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |      |       |       |              | Remark |
|----------------------|----------------------|------|-------|-------|--------------|--------|
|                      | GU                   | RA   | CBE   | WR    | Mean         |        |
| VSCH 369 BGII (ZC 2) | 5.00                 | 4.35 | 10.37 | 16.25 | <b>8.99</b>  |        |
| NBC 1821 BGII (ZC 1) | 6.23                 | 3.69 | 14.37 | 22.50 | <b>11.70</b> |        |
| Indam 2412 BGII      | 7.54                 | 4.58 | 14.06 | 12.50 | <b>9.67</b>  |        |
| ACH 41-2 BGII        | 6.36                 | 3.96 | 8.70  | 18.75 | <b>9.44</b>  |        |
| <b>Check</b>         | 5.00                 | 4.38 | 8.56  | 23.75 | <b>10.42</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |      |      |             | Remark |
|----------------------|-------------------|------|------|------|-------------|--------|
|                      | GU                | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 2.68              | 2.69 | 3.43 | 5.91 | <b>3.68</b> |        |
| NBC 1821 BGII (ZC 1) | 2.71              | 2.61 | 5.95 | 5.45 | <b>4.18</b> |        |
| Indam 2412 BGII      | 3.43              | 3.12 | 4.39 | 3.08 | <b>3.51</b> |        |
| ACH 41-2 BGII        | 2.18              | 2.31 | 4.07 | 4.24 | <b>3.20</b> |        |
| <b>Check</b>         | 2.20              | 3.02 | 3.39 | 4.27 | <b>3.22</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect-pests |      |      |      |             | Remark |
|----------------------|-----------------------------------|------|------|------|-------------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| NBC 1821 BGII (ZC 1) | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| Indam 2412 BGII      | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| ACH 41-2 BGII        | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |
| <b>Check</b>         | 5.00                              | 5.00 | 4.00 | 5.00 | <b>4.75</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table 5(a) Advanced Evaluation Trial– I of Compact Intra-Hirsutum Hybrids – Irrigated (AET-I Compact IRR) under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |     |    |                     |    |     |    |     |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|-----|----|---------------------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                               |    |      |    |      |    |     |    | CICR RS, Coimbatore |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                      |    | GM   |    | Rust |    | ALS |    | Boll rot            |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI | DR | PDI                 | DR | PDI | DR | PDI | DR | PDI  | DR |
| 3      | 55091   | VSCH 369 BGII (ZC 2) | 28.2                                                      | MR | 6.9  | R  | 30.0 | MR | 7.3 | R  | 0.0                 | DF | 0.9 | R  | 0.5 | R  | 0.0  | DF |
| 1      | 55092   | NBC 1821 BGII (ZC 1) | 23.8                                                      | R  | 20.0 | R  | 40.5 | MR | 7.0 | R  | 0.0                 | DF | 0.0 | DF | 0.6 | R  | 0.0  | DF |
| 4      | 55093   | Indam 2412 BGII      | 30.7                                                      | MR | 24.5 | R  | 10.0 | R  | 7.5 | R  | 0.0                 | DF | 0.0 | DF | 1.0 | R  | 0.0  | DF |
| 2      | 55094   | ACH 41-2 BGII        | 26.8                                                      | MR | 28.2 | MR | 16.3 | R  | 5.3 | R  | 0.0                 | DF | 0.0 | DF | 0.4 | R  | 0.0  | DF |

**Table 5 (b) Advanced Evaluation Trial– I of Compact Intra-Hirsutum Hybrids – Irrigated (AET-I Compact IRR) under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|
|        |         |                      | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    |
|        |         |                      | ALS                                                       |    | CoLS |    | GM   |    | Rust |    | TSV |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 3      | 55091   | VSCH 369 BGII (ZC 2) | 2.4                                                       | R  | 2.1  | R  | 12.5 | R  | 26.5 | MR | 5.5 | R  |
| 1      | 55092   | NBC 1821 BGII (ZC 1) | 2.0                                                       | R  | 3.0  | R  | 12.6 | R  | 27.6 | MR | 6.7 | R  |
| 4      | 55093   | Indam 2412 BGII      | 3.3                                                       | R  | 1.9  | R  | 12.0 | R  | 28.3 | MR | 4.7 | R  |
| 2      | 55094   | ACH 41-2 BGII        | 2.5                                                       | R  | 2.1  | R  | 12.5 | R  | 28.6 | MR | 6.4 | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 5.27                              | 3.51 | 7.10 | 8.40 | <b>6.07</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 4.13                              | 3.04 | 7.82 | 8.13 | <b>5.78</b> | <b>BETL</b> |
| Indam 2412 BGII      | 5.30                              | 2.43 | 5.77 | 6.80 | <b>5.07</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 6.13                              | 2.49 | 7.95 | 8.60 | <b>6.29</b> | <b>BETL</b> |
| <b>CHECK</b>         | 5.47                              | 1.75 | 6.11 | 9.67 | <b>5.75</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| VSCH 369 BGII (ZC 2) | 8.77                                   | 6.52 | 4.47 | 4.13 | <b>5.97</b> | <b>AETL</b> |
| NBC 1821 BGII (ZC 1) | 9.57                                   | 7.03 | 2.49 | 5.27 | <b>6.09</b> | <b>AETL</b> |
| Indam 2412 BGII      | 9.60                                   | 6.25 | 2.56 | 2.80 | <b>5.30</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 8.10                                   | 7.51 | 4.11 | 3.27 | <b>5.75</b> | <b>BETL</b> |
| <b>CHECK</b>         | 7.30                                   | 5.79 | 2.98 | 4.27 | <b>5.08</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
JIG**

| Name of Entry        | JIG/plant |    |     |     |      | Remark |
|----------------------|-----------|----|-----|-----|------|--------|
|                      | GU        | RA | CBE | WR  | Mean |        |
| VSCH 369 BGII (ZC 2) | III       | I  | I   | II  | II   |        |
| NBC 1821 BGII (ZC 1) | III       | I  | I   | II  | II   |        |
| Indam 2412 BGII      | III       | I  | I   | III | II   |        |
| ACH 41-2 BGII        | II        | II | I   | II  | II   |        |
| <b>CHECK</b>         | II        | II | I   | II  | II   |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark      |
|----------------------|------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |             |
| VSCH 369 BGII (ZC 2) | 8.87                               | 5.26 | 2.91 | 12.27 | <b>7.33</b> | <b>BETL</b> |
| NBC 1821 BGII (ZC 1) | 7.27                               | 4.96 | 2.38 | 11.87 | <b>6.62</b> | <b>BETL</b> |
| Indam 2412 BGII      | 8.57                               | 4.19 | 2.38 | 10.13 | <b>6.32</b> | <b>BETL</b> |
| ACH 41-2 BGII        | 7.23                               | 4.53 | 2.46 | 9.60  | <b>5.95</b> | <b>BETL</b> |
| <b>CHECK</b>         | 8.23                               | 5.23 | 1.72 | 10.07 | <b>6.31</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Whitefly

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 0.60                                 | 1.54 | 0.81 | 0.67 | <b>0.91</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 1.03                                 | 1.22 | 1.13 | 0.87 | <b>1.06</b> | BETL   |
| Indam 2412 BGII      | 1.17                                 | 1.28 | 1.12 | 0.60 | <b>1.04</b> | BETL   |
| ACH 41-2 BGII        | 0.63                                 | 0.86 | 1.72 | 0.47 | <b>0.92</b> | BETL   |
| CHECK                | 1.20                                 | 0.97 | 1.20 | 0.67 | <b>1.01</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Natural Enemies

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 0.20                        | 0.90 | 0.20 | 0.07 | <b>0.34</b> |        |
| NBC 1821 BGII (ZC 1) | 0.17                        | 1.12 | 0.20 | 0.13 | <b>0.41</b> |        |
| Indam 2412 BGII      | 0.10                        | 1.00 | 0.00 | 0.20 | <b>0.33</b> |        |
| ACH 41-2 BGII        | 0.23                        | 1.89 | 0.13 | 0.13 | <b>0.60</b> |        |
| CHECK                | 0.13                        | 1.34 | 0.20 | 0.20 | <b>0.47</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – *Helicoverpa armigera*

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| Indam 2412 BGII      | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| ACH 41-2 BGII        | 0.00                                       | 0.22 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| CHECK                | 0.00                                       | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|----------------------|----------------------------------|------|------|------|-------------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Indam 2412 BGII      | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ACH 41-2 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CHECK                | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – *Spodoptera litura*

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 0.37                                    | 0.22 | 0.00 | 0.00 | <b>0.15</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.11 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| Indam 2412 BGII      | 0.73                                    | 0.11 | 0.00 | 0.00 | <b>0.21</b> | BETL   |
| ACH 41-2 BGII        | 0.00                                    | 0.33 | 0.00 | 0.00 | <b>0.08</b> | BETL   |
| <b>CHECK</b>         | 0.50                                    | 0.67 | 0.00 | 0.00 | <b>0.29</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
Pink Bollworm

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |       |             | Remark |
|----------------------|---------------------------------------------------------|------|------|-------|-------------|--------|
|                      | GU                                                      | RA   | CBE  | WR    | Mean        |        |
| VSCH 369 BGII (ZC 2) | 4.83                                                    | 2.19 | 0.33 | 8.00  | <b>3.84</b> | AETL   |
| NBC 1821 BGII (ZC 1) | 5.00                                                    | 2.30 | 0.47 | 9.00  | <b>4.19</b> | AETL   |
| Indam 2412 BGII      | 4.17                                                    | 1.41 | 0.67 | 9.00  | <b>3.81</b> | AETL   |
| ACH 41-2 BGII        | 4.83                                                    | 2.08 | 0.07 | 10.33 | <b>4.33</b> | AETL   |
| <b>CHECK</b>         | 4.50                                                    | 1.64 | 0.33 | 8.00  | <b>3.62</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
Green Boll Damage due to ABW/SBW/TC

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| VSCH 369 BGII (ZC 2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NBC 1821 BGII (ZC 1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Indam 2412 BGII      | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ACH 41-2 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| <b>CHECK</b>         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
Green Boll Damage (Pink Bollworm)

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|--------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |        |
| VSCH 369 BGII (ZC 2) | 25.00                                                 | 5.59 | 10.00 | 50.00 | <b>22.65</b> | AETL   |
| NBC 1821 BGII (ZC 1) | 28.33                                                 | 5.80 | 22.50 | 50.00 | <b>26.66</b> | AETL   |
| Indam 2412 BGII      | 21.67                                                 | 5.52 | 10.00 | 50.00 | <b>21.80</b> | AETL   |
| ACH 41-2 BGII        | 26.67                                                 | 5.69 | 16.50 | 50.00 | <b>24.72</b> | AETL   |
| <b>CHECK</b>         | 30.00                                                 | 5.03 | 15.00 | 46.67 | <b>24.17</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | RA    | CBE   | WR    | Mean         |        |
| VSCH 369 BGII (ZC 2) | 46.25                | 10.73 | 20.50 | 40.00 | <b>29.37</b> |        |
| NBC 1821 BGII (ZC 1) | 32.14                | 11.91 | 26.27 | 40.00 | <b>27.58</b> |        |
| Indam 2412 BGII      | 30.75                | 9.23  | 14.62 | 45.00 | <b>24.90</b> |        |
| ACH 41-2 BGII        | 41.36                | 9.89  | 26.49 | 30.00 | <b>26.94</b> |        |
| <b>CHECK</b>         | 46.78                | 9.78  | 14.87 | 45.00 | <b>29.11</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions –  
Locule Damage**

| Name of Entry        | Locule Damage (%) |      |       |       |              | Remark |
|----------------------|-------------------|------|-------|-------|--------------|--------|
|                      | GU                | RA   | CBE   | WR    | Mean         |        |
| VSCH 369 BGII (ZC 2) | 30.25             | 8.71 | 10.42 | 14.03 | <b>15.85</b> |        |
| NBC 1821 BGII (ZC 1) | 19.84             | 9.89 | 11.83 | 12.92 | <b>13.62</b> |        |
| Indam 2412 BGII      | 21.34             | 7.22 | 6.13  | 14.29 | <b>12.25</b> |        |
| ACH 41-2 BGII        | 25.62             | 7.88 | 12.46 | 12.25 | <b>14.55</b> |        |
| <b>CHECK</b>         | 21.33             | 7.77 | 4.93  | 14.91 | <b>12.23</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table 5(c) Advanced Evaluation Trial– I of Compact Intra-Hirsutum Hybrids – Irrigated (AET-I Compact IRR) under Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                                 |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                        |    | GM   |    | Rust |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 3      | 55091   | VSCH 369 BGII (ZC 2) | 36.0                                                        | MR | 11.0 | R  | 33.0 | MR | 5.0                 | R  | 0.0      | DF | 2.5 | R  | 2.8 | R  | 6.0  | R  |
| 1      | 55092   | NBC 1821 BGII (ZC 1) | 26.5                                                        | MR | 27.8 | MR | 42.5 | MR | 5.0                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.5  | R  |
| 4      | 55093   | Indam 2412 BGII      | 33.5                                                        | MR | 26.5 | MR | 11.0 | R  | 4.0                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 2.5  | R  |
| 2      | 55094   | ACH 41-2 BGII        | 29.0                                                        | MR | 30.2 | MR | 20.5 | R  | 4.0                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 4.0  | R  |

**Table 5(d) Advanced Evaluation Trial– I of Compact Intra-Hirsutum Hybrids – Irrigated (AET-I Compact IRR) under Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|------|----|
|        |         |                      | RARS, Warangal                                              |    |      |    |      |    |      |    |      |    |
|        |         |                      | ALS                                                         |    | CoLS |    | GM   |    | Rust |    | TSV  |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 3      | 55091   | VSCH 369 BGII (ZC 2) | 7.5                                                         | R  | 8.5  | R  | 17.0 | R  | 38.5 | MR | 8.8  | R  |
| 1      | 55092   | NBC 1821 BGII (ZC 1) | 5.0                                                         | R  | 7.0  | R  | 15.0 | R  | 35.0 | MR | 17.5 | R  |
| 4      | 55093   | Indam 2412 BGII      | 6.5                                                         | R  | 6.5  | R  | 12.0 | R  | 22.0 | R  | 15.0 | R  |
| 2      | 55094   | ACH 41-2 BGII        | 6.5                                                         | R  | 6.0  | R  | 12.5 | R  | 41.0 | MR | 12.5 | R  |

## Agronomic Evaluation

### RAICHUR (INDAM 2412 BG II)

Significantly higher seed cotton yield was recorded with 90 x 45 cm spacing (2956 kg/ha) compared to other spacings (Table 48). The increase in higher seed cotton yield was mainly due to increased number of bolls/sqm(192.0). Among nitrogen levels, higher seed cotton yield was obtained with 125% recommended N/ha (2808 kg/ha) followed by 100% recommended N/ha (2689 kg/ha) compared to 75% recommended N/ha (2540 kg/ha). This could be attributed to higher sympodia/plant, higher boll number/plant and boll weight. The interaction effect was found to be non significant.

**Table 48. Total Seed cotton yield (kg/ha) of INDAM 2412 BG II as influenced by spacing levels and nutrient levels at Raichur**

| Treatments       | INDAM 2412 BG II |                 |                    | Mean (N levels) |
|------------------|------------------|-----------------|--------------------|-----------------|
|                  | S1: 90 X 45 cm   | S2: 90 X 60 cm  | S3: 90 X 75 cm     |                 |
| N1- 75% of RDN   | 2810             | 2518            | 2290               | <b>2540</b>     |
| N2- 100 % of RDN | 2950             | 2718            | 2398               | <b>2689</b>     |
| N3- 125% of RDN  | 3108             | 2828            | 2489               | <b>2808</b>     |
| Mean (spacing)   | <b>2956</b>      | <b>2688</b>     | <b>2392</b>        |                 |
| <b>ANOVA</b>     | <b>Spacing</b>   | <b>N levels</b> | <b>Interaction</b> |                 |
| <b>SE d</b>      | <b>121</b>       | <b>121</b>      | <b>209</b>         |                 |
| <b>CD (5%)</b>   | <b>209</b>       | <b>NS</b>       | <b>NS</b>          |                 |

Basic parameters: pH: 8.06, OC (%): 0.42, Available N: 328 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 39 kg/ha, Available K<sub>2</sub>O: 358 kg/ha, Recommended nutrients: 180:90:90 kg NPK/ha, Genotype: INDAM 2412 BG II, Environment: Irrigated

### DHARWAD (BIO6910 BGII)

The results of one season trial reveals that number of bolls per sq mtr recorded significantly highest (197.9) with planting geometry (90X15 cm) with higher N level (125% RDN). None of the interactions of S X N with respect to growth and yield parameters were significant. Among the planting geometry 90 X 15 cm (S<sub>2</sub>) recorded significantly higher seed cotton yield (1465 kg/ha) as compared to other level. The control Bt hybrid SP7679 BGII out yielded (1811 kg/ha) than the test Bt hybrid. Increased N levels from 75% to 125% numerically increased seed cotton yield (from 1123 kg/ha to 1307 kg/ha). Thus, BIO 6910 BGII performed better with planting geometry of 90 X 15 cm with 125% N levels to produce higher no of bolls per sq mtr and seed cotton yield per hectare (Table 54).

**Table 54. Seed cotton yield (kg/ha) of BIO6910 BGII as influenced by spacing levels and nutrient levels at Dharwad**

| Treatments                | S <sub>1</sub> : 90x15 cm | S <sub>2</sub> : 90x30 cm | S <sub>3</sub> : 90x45 cm | Mean | ANOVA    | SE d   | CD (5%) | CV    |
|---------------------------|---------------------------|---------------------------|---------------------------|------|----------|--------|---------|-------|
| N <sub>1</sub> : 75% RDN  | 1356                      | 1085                      | 929                       | 1123 | Spacing  | 115.18 | 246.27  | 20.37 |
| N <sub>2</sub> : 100% RDN | 1492                      | 1094                      | 1093                      | 1226 | Nitrogen | 115.18 | NS      |       |
| N <sub>3</sub> : 125% RDN | 1547                      | 1148                      | 1224                      | 1307 | S X N    | 199.49 | NS      |       |
| Mean                      | 1465                      | 1109                      | 1082                      |      |          |        |         |       |
| Control (CCH 666 BGII)    | 1811                      |                           |                           |      |          |        |         |       |

Basic parameters: pH: 6.9, OC (%): 0.68, Available N: 295 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 32.0 kg/ha, Available K<sub>2</sub>O: 510 kg/ha, Recommended nutrients: 100:50:50 kg NPK/ha, Genotype: BIO6910 BGII, Total rainfall during cropping period: 914.70 mm



## Combined Evaluation Trial of Hirsutum x Barbadense Hybrids

### *Constitution of Trial*

The trial was constituted with four Hirsutum x Barbadense Bt cotton Hybrids containing MON 15985 event sponsored by various Private organization along with two different check hybrids as furnished below.

| S. No. | Code-I | Code -II | Entries                     | Company               |
|--------|--------|----------|-----------------------------|-----------------------|
| 1      | 6      | 55101    | KSP 5253 (HXB) BGII         | Kalash Seeds Pvt. Ltd |
| 2      | 11     | 55102    | ACHB 2111 BGII              | Ankur seeds Pvt. Ltd  |
| 3      | 1      | 55103    | US 781 BGII                 | Seedworks             |
| 4      | 8      | 55104    | GBCH 2002 BGII              | Green Gold Seeds      |
| 5      | 3      | 55105    | CHB 1 BG II                 | CICR, Coimbatore      |
| 6      | 10     | 55106    | PGCHB 64 BGII               | Partech Seeds Pvt Ltd |
| 7      | 4      | 55107    | <b>MRC 7918 BG II (ZC1)</b> |                       |
| 8      | 9      | 55108    | DACHB 93S39 BGII            | Dharti                |
| 9      | 7      | 55109    | <b>MRC 6918 BG II (ZC2)</b> |                       |
| 10     | 2      | 55110    | NCHB 5799 Bt II             | Nuziveedu             |
| 11     | 5      | 55111    | SP 7710 BGII                | Crystal               |

The trial was conducted in four locations viz., Lam, Coimbatore, Dharwad and Chamrajnagar.

**Spacing:** Recommended spacing for the hybrid has been followed.

**Number of rows:** 4 rows of 6 meters per entry with four replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam   | Dharwad | Chamrajnagar | Coimbatore | Mean         |
|--------|-----------------------------|-------|---------|--------------|------------|--------------|
| 1      | KSP 5253 (HXB) BGII         | 180.0 | 143.7   | 131.1        | 137.7      | <b>148.1</b> |
| 2      | ACHB 2111 BGII              | 164.7 | 156.4   | 134.0        | 135.1      | <b>147.6</b> |
| 3      | US 781 BGII                 | 187.5 | 133.1   | 150.0        | 124.8      | <b>148.9</b> |
| 4      | GBCH 2002 BGII              | 214.2 | 159.3   | 147.8        | 145.5      | <b>166.7</b> |
| 5      | CHB 1 BG II                 | 185.0 | 161.1   | 139.6        | 152.8      | <b>159.6</b> |
| 6      | PGCHB 64 BGII               | 194.1 | 154.8   | 133.5        | 134.7      | <b>154.3</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 117.1 | 139.2   | 136.6        | 113.9      | <b>126.7</b> |
| 8      | DACHB 93S39 BGII            | 147.0 | 153.1   | 133.7        | 126.9      | <b>140.2</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 114.3 | 143.2   | 130.3        | 118.0      | <b>126.5</b> |
| 10     | NCHB 5799 Bt II             | 163.7 | 143.0   | 135.5        | 137.1      | <b>144.8</b> |
| 11     | SP 7710 BGII                | 147.7 | 115.8   | 142.9        | 130.1      | <b>134.1</b> |
|        | CD @ 5%                     | 29.8  | 18.6    | 12.2         | 17.7       |              |
|        | CV %                        | 10.5  | 7.5     | 5.2          | 7.8        |              |

**Number of monopodia in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean       |
|--------|-----------------------------|------|---------|--------------|------------|------------|
| 1      | KSP 5253 (HXB) BGII         | 2.1  | 1.6     | 2.3          | 0.5        | <b>1.6</b> |
| 2      | ACHB 2111 BGII              | 1.7  | 1.2     | 2.3          | 0.4        | <b>1.4</b> |
| 3      | US 781 BGII                 | 1.7  | 3.7     | 2.1          | 1.1        | <b>2.2</b> |
| 4      | GBCH 2002 BGII              | 2.2  | 2.3     | 2.4          | 0.2        | <b>1.8</b> |
| 5      | CHB 1 BG II                 | 1.3  | 3.3     | 2.5          | 0.7        | <b>2.0</b> |
| 6      | PGCHB 64 BGII               | 3.4  | 1.8     | 2.5          | 0.5        | <b>2.1</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 3.0  | 2.0     | 2.5          | 0.5        | <b>2.0</b> |
| 8      | DACHB 93S39 BGII            | 1.4  | 2.2     | 2.3          | 0.1        | <b>1.5</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 1.5  | 1.7     | 2.4          | 0.3        | <b>1.5</b> |
| 10     | NCHB 5799 Bt II             | 1.6  | 1.2     | 2.6          | 0.5        | <b>1.5</b> |
| 11     | SP 7710 BGII                | 2.2  | 1.8     | 2.3          | 0.5        | <b>1.7</b> |
|        | CD @ 5%                     | 0.5  | 0.7     | NS           | 0.7        |            |
|        | CV %                        | 13.5 | 18.3    | 6.9          | 52.5       |            |



**Number of sympodia in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 19.8 | 20.1    | 15.1         | 14.5       | <b>17.4</b> |
| 2      | ACHB 2111 BGII              | 26.1 | 21.1    | 15.3         | 15.3       | <b>19.5</b> |
| 3      | US 781 BGII                 | 23.6 | 16.9    | 16.2         | 13.9       | <b>17.7</b> |
| 4      | GBCH 2002 BGII              | 22.7 | 20.6    | 17.5         | 16.5       | <b>19.3</b> |
| 5      | CHB 1 BG II                 | 20.8 | 21.0    | 16.6         | 16.6       | <b>18.8</b> |
| 6      | PGCHB 64 BGII               | 20.3 | 19.3    | 16.8         | 15.3       | <b>17.9</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 21.6 | 19.7    | 17.7         | 13.7       | <b>18.2</b> |
| 8      | DACHB 93S39 BGII            | 18.6 | 21.2    | 17.0         | 14.0       | <b>17.7</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 18.5 | 20.6    | 17.7         | 14.9       | <b>17.9</b> |
| 10     | NCHB 5799 Bt II             | 21.8 | 19.7    | 18.0         | 15.5       | <b>18.8</b> |
| 11     | SP 7710 BGII                | 18.4 | 19.2    | 18.5         | 15.1       | <b>17.8</b> |
|        | CD @ 5%                     | 4.2  | 2.8     | 1.7          | NS         |             |
|        | CV %                        | 11.7 | 8.4     | 5.7          | 9.3        |             |

**Boll weight (g) in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam | Chamrajnagar | Coimbatore | Mean       |
|--------|-----------------------------|-----|--------------|------------|------------|
| 1      | KSP 5253 (HXB) BGII         | 5.2 | 4.3          | 5.8        | <b>5.1</b> |
| 2      | ACHB 2111 BGII              | 4.9 | 5.2          | 5.7        | <b>5.3</b> |
| 3      | US 781 BGII                 | 5.0 | 4.3          | 4.5        | <b>4.6</b> |
| 4      | GBCH 2002 BGII              | 5.1 | 4.0          | 5.2        | <b>4.8</b> |
| 5      | CHB 1 BG II                 | 4.8 | 4.8          | 5.1        | <b>4.9</b> |
| 6      | PGCHB 64 BGII               | 5.1 | 3.8          | 5.6        | <b>4.8</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 5.0 | 4.2          | 5.0        | <b>4.7</b> |
| 8      | DACHB 93S39 BGII            | 4.8 | 4.6          | 5.8        | <b>5.1</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 4.9 | 3.9          | 4.3        | <b>4.4</b> |
| 10     | NCHB 5799 Bt II             | 4.8 | 3.3          | 4.8        | <b>4.3</b> |
| 11     | SP 7710 BGII                | 4.8 | 4.3          | 5.0        | <b>4.7</b> |
|        | CD @ 5%                     | NS  | 0.6          | 0.4        |            |
|        | CV %                        | 8.6 | 8.7          | 5.0        |            |



**Number of bolls / plant in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 44.1 | 26.7    | 30.4         | 19.2       | <b>30.1</b> |
| 2      | ACHB 2111 BGII              | 46.9 | 24.3    | 27.8         | 23.1       | <b>30.5</b> |
| 3      | US 781 BGII                 | 46.5 | 25.1    | 47.6         | 23.0       | <b>35.6</b> |
| 4      | GBCH 2002 BGII              | 42.1 | 26.8    | 48.5         | 22.3       | <b>34.9</b> |
| 5      | CHB 1 BG II                 | 43.2 | 26.8    | 26.5         | 20.9       | <b>29.4</b> |
| 6      | PGCHB 64 BGII               | 26.3 | 23.6    | 45.7         | 17.5       | <b>28.3</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 47.6 | 26.8    | 43.6         | 20.0       | <b>34.5</b> |
| 8      | DACHB 93S39 BGII            | 51.7 | 21.9    | 35.9         | 19.5       | <b>32.3</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 44.6 | 26.7    | 40.0         | 22.8       | <b>33.5</b> |
| 10     | NCHB 5799 Bt II             | 49.3 | 27.2    | 44.8         | 20.3       | <b>35.4</b> |
| 11     | SP 7710 BGII                | 50.7 | 24.7    | 42.8         | 22.7       | <b>35.2</b> |
|        | CD @ 5%                     | 10.5 | 3.8     | 6.0          | NS         |             |
|        | CV %                        | 13.6 | 8.8     | 8.9          | 15.7       |             |

**Number of bolls /sq.m. in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam   | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|-------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 88.3  | 37.1    | 54.7         | 47.4       | <b>56.9</b> |
| 2      | ACHB 2111 BGII              | 93.7  | 33.8    | 50.0         | 57.1       | <b>58.7</b> |
| 3      | US 781 BGII                 | 92.9  | 34.9    | 85.6         | 56.8       | <b>67.6</b> |
| 4      | GBCH 2002 BGII              | 84.0  | 37.2    | 87.2         | 55.0       | <b>65.9</b> |
| 5      | CHB 1 BG II                 | 86.4  | 37.2    | 47.6         | 51.5       | <b>55.7</b> |
| 6      | PGCHB 64 BGII               | 52.7  | 32.7    | 82.3         | 43.1       | <b>52.7</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 95.4  | 37.2    | 78.5         | 49.4       | <b>65.1</b> |
| 8      | DACHB 93S39 BGII            | 103.7 | 30.4    | 64.6         | 48.2       | <b>61.7</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 89.3  | 37.1    | 72.0         | 56.3       | <b>63.7</b> |
| 10     | NCHB 5799 Bt II             | 98.1  | 37.8    | 80.6         | 50.2       | <b>66.7</b> |
| 11     | SP 7710 BGII                | 101.4 | 34.3    | 77.1         | 56.1       | <b>67.2</b> |
|        | CD @ 5%                     | 20.8  | 5.3     | 10.8         | NS         |             |
|        | CV %                        | 13.5  | 8.8     | 8.9          | 15.7       |             |



**Lint Index (g) in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean       |
|--------|-----------------------------|------|---------|--------------|------------|------------|
| 1      | KSP 5253 (HXB) BGII         | 5.9  | 7.0     | 4.5          | 7.7        | <b>6.3</b> |
| 2      | ACHB 2111 BGII              | 6.9  | 7.3     | 4.5          | 8.0        | <b>6.7</b> |
| 3      | US 781 BGII                 | 6.6  | 6.2     | 4.7          | 6.4        | <b>6.0</b> |
| 4      | GBCH 2002 BGII              | 5.8  | 5.7     | 4.4          | 6.5        | <b>5.6</b> |
| 5      | CHB 1 BG II                 | 6.8  | 5.7     | 4.4          | 6.5        | <b>5.9</b> |
| 6      | PGCHB 64 BGII               | 4.8  | 6.9     | 4.3          | 7.1        | <b>5.8</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 6.2  | 6.0     | 3.8          | 6.2        | <b>5.6</b> |
| 8      | DACHB 93S39 BGII            | 7.4  | 7.6     | 5.0          | 8.1        | <b>7.0</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 6.8  | 5.8     | 3.5          | 5.8        | <b>5.5</b> |
| 10     | NCHB 5799 Bt II             | 6.9  | 6.0     | 4.1          | 5.9        | <b>5.7</b> |
| 11     | SP 7710 BGII                | 7.8  | 6.7     | 4.1          | 7.6        | <b>6.6</b> |
|        | CD @ 5%                     | 1.3  |         | 0.4          | 0.5        |            |
|        | CV %                        | 11.4 |         | 5.5          | 4.5        |            |

**Seed Index (g) in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 10.9 | 15.1    | 9.9          | 14.3       | <b>12.6</b> |
| 2      | ACHB 2111 BGII              | 12.7 | 15.3    | 10.2         | 16.3       | <b>13.6</b> |
| 3      | US 781 BGII                 | 11.4 | 13.2    | 9.5          | 12.6       | <b>11.7</b> |
| 4      | GBCH 2002 BGII              | 10.3 | 14.1    | 10.2         | 14.5       | <b>12.3</b> |
| 5      | CHB 1 BG II                 | 10.7 | 14.8    | 9.7          | 13.2       | <b>12.1</b> |
| 6      | PGCHB 64 BGII               | 10.2 | 16.2    | 10.0         | 15.6       | <b>13.0</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 9.9  | 15.0    | 9.4          | 14.9       | <b>12.3</b> |
| 8      | DACHB 93S39 BGII            | 11.7 | 16.1    | 10.6         | 15.9       | <b>13.6</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 11.7 | 14.1    | 8.7          | 13.6       | <b>12.0</b> |
| 10     | NCHB 5799 Bt II             | 10.4 | 15.0    | 9.8          | 14.1       | <b>12.3</b> |
| 11     | SP 7710 BGII                | 11.9 | 15.1    | 9.2          | 14.6       | <b>12.7</b> |
|        | CD @ 5%                     | NS   |         | 0.6          | 1.2        |             |
|        | CV %                        | 13.1 |         | 3.4          | 4.7        |             |





**Ginning outturn (%) in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 35.5 | 31.7    | 31.1         | 35.0       | <b>33.3</b> |
| 2      | ACHB 2111 BGII              | 35.3 | 32.3    | 30.7         | 32.9       | <b>32.8</b> |
| 3      | US 781 BGII                 | 36.6 | 32.0    | 33.1         | 33.6       | <b>33.8</b> |
| 4      | GBCH 2002 BGII              | 36.0 | 29.0    | 30.3         | 31.1       | <b>31.6</b> |
| 5      | CHB 1 BG II                 | 39.1 | 27.9    | 31.3         | 33.0       | <b>32.8</b> |
| 6      | PGCHB 64 BGII               | 32.9 | 30.0    | 29.9         | 31.3       | <b>31.0</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 38.3 | 28.7    | 28.9         | 29.6       | <b>31.4</b> |
| 8      | DACHB 93S39 BGII            | 38.8 | 32.2    | 32.1         | 33.8       | <b>34.2</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 36.5 | 29.0    | 28.7         | 29.8       | <b>31.0</b> |
| 10     | NCHB 5799 Bt II             | 39.8 | 28.7    | 29.8         | 29.4       | <b>31.9</b> |
| 11     | SP 7710 BGII                | 39.4 | 30.7    | 30.6         | 34.2       | <b>33.7</b> |
|        | CD @ 5%                     | NS   |         | 1.1          | 2.7        |             |
|        | CV %                        | 13.1 |         | 2.2          | 4.9        |             |

**Upper Half Mean Length (mm) under HVI Mode in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 36.4 | 35.9    | 32.4         | 37.5       | <b>35.5</b> |
| 2      | ACHB 2111 BGII              | 36.9 | 39.0    | 32.9         | 38.9       | <b>36.9</b> |
| 3      | US 781 BGII                 | 36.7 | 33.6    | 32.7         | 36.5       | <b>34.9</b> |
| 4      | GBCH 2002 BGII              | 37.2 | 37.3    | 33.8         | 38.2       | <b>36.6</b> |
| 5      | CHB 1 BG II                 | 37.8 | 39.2    | 33.4         | 36.6       | <b>36.8</b> |
| 6      | PGCHB 64 BGII               | 36.1 | 38.6    | 33.1         | 38.6       | <b>36.6</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 38.1 | 38.8    | 30.7         | 39.1       | <b>36.7</b> |
| 8      | DACHB 93S39 BGII            | 36.5 | 39.1    | 33.1         | 38.3       | <b>36.7</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 36.6 | 37.2    | 31.8         | 39.1       | <b>36.2</b> |
| 10     | NCHB 5799 Bt II             | 34.4 | 39.2    | 34.1         | 39.2       | <b>36.7</b> |
| 11     | SP 7710 BGII                | 35.4 | 37.8    | 33.5         | 38.6       | <b>36.3</b> |



**Uniformity index under HVI Mode in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 87.0 | 87.0    | 81.7         | 89.0       | <b>86.2</b> |
| 2      | ACHB 2111 BGII              | 86.0 | 88.0    | 82.7         | 90.0       | <b>86.7</b> |
| 3      | US 781 BGII                 | 87.0 | 89.0    | 83.0         | 89.0       | <b>87.0</b> |
| 4      | GBCH 2002 BGII              | 86.0 | 87.0    | 82.3         | 89.0       | <b>86.1</b> |
| 5      | CHB 1 BG II                 | 87.0 | 88.0    | 83.3         | 87.0       | <b>86.3</b> |
| 6      | PGCHB 64 BGII               | 87.0 | 89.0    | 82.7         | 90.0       | <b>87.2</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 88.0 | 86.0    | 83.0         | 90.0       | <b>86.8</b> |
| 8      | DACHB 93S39 BGII            | 86.0 | 88.0    | 83.3         | 90.0       | <b>86.8</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 86.0 | 88.0    | 81.3         | 91.0       | <b>86.6</b> |
| 10     | NCHB 5799 Bt II             | 88.0 | 87.0    | 83.0         | 90.0       | <b>87.0</b> |
| 11     | SP 7710 BGII                | 86.0 | 89.0    | 83.7         | 90.0       | <b>87.2</b> |

**Micronaire under HVI Mode in I Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam | Dharwad | Chamrajnagar | Coimbatore | Mean       |
|--------|-----------------------------|-----|---------|--------------|------------|------------|
| 1      | KSP 5253 (HXB) BGII         | 3.9 | 3.5     | 2.4          | 3.7        | <b>3.4</b> |
| 2      | ACHB 2111 BGII              | 3.7 | 3.7     | 2.6          | 3.9        | <b>3.5</b> |
| 3      | US 781 BGII                 | 3.6 | 4.1     | 2.8          | 3.9        | <b>3.6</b> |
| 4      | GBCH 2002 BGII              | 3.8 | 3.7     | 2.5          | 3.7        | <b>3.4</b> |
| 5      | CHB 1 BG II                 | 3.6 | 3.4     | 2.3          | 3.3        | <b>3.1</b> |
| 6      | PGCHB 64 BGII               | 4.0 | 3.3     | 2.4          | 3.6        | <b>3.3</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 3.3 | 2.8     | 2.3          | 2.9        | <b>2.8</b> |
| 8      | DACHB 93S39 BGII            | 3.7 | 3.7     | 2.5          | 4.0        | <b>3.5</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 3.0 | 3.2     | 2.2          | 3.4        | <b>2.9</b> |
| 10     | NCHB 5799 Bt II             | 4.0 | 3.5     | 2.3          | 3.5        | <b>3.3</b> |
| 11     | SP 7710 BGII                | 3.9 | 4.2     | 2.3          | 3.8        | <b>3.6</b> |



**Tenacity under HVI Mode in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam  | Dharwad | Chamrajnagar | Coimbatore | Mean        |
|--------|-----------------------------|------|---------|--------------|------------|-------------|
| 1      | KSP 5253 (HXB) BGII         | 38.6 | 33.6    | 29.3         | 34.9       | <b>34.1</b> |
| 2      | ACHB 2111 BGII              | 34.4 | 34.3    | 31.1         | 34.3       | <b>33.5</b> |
| 3      | US 781 BGII                 | 38.9 | 36.2    | 30.5         | 37.0       | <b>35.6</b> |
| 4      | GBCH 2002 BGII              | 35.7 | 36.8    | 29.9         | 33.8       | <b>34.1</b> |
| 5      | CHB 1 BG II                 | 39.9 | 37.3    | 29.4         | 36.1       | <b>35.7</b> |
| 6      | PGCHB 64 BGII               | 41.5 | 35.1    | 29.1         | 34.5       | <b>35.1</b> |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 35.6 | 37.1    | 29.3         | 33.5       | <b>33.9</b> |
| 8      | DACHB 93S39 BGII            | 37.8 | 34.4    | 30.1         | 34.7       | <b>34.3</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 38.6 | 36.1    | 30.6         | 36.8       | <b>35.5</b> |
| 10     | NCHB 5799 Bt II             | 37.7 | 40.3    | 31.3         | 36.6       | <b>36.5</b> |
| 11     | SP 7710 BGII                | 36.9 | 39.0    | 32.2         | 36.9       | <b>36.3</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Hirsutum x Barbadense Hybrids trial**

| S. No. | Entries                     | Lam   | Dharwad | Coimbatore | Mean         |
|--------|-----------------------------|-------|---------|------------|--------------|
| 1      | KSP 5253 (HXB) BGII         | 8.17  | 5.15    | 15.52      | <b>9.61</b>  |
| 2      | ACHB 2111 BGII              | 10.63 | 5.87    | 17.28      | <b>11.26</b> |
| 3      | US 781 BGII                 | 10.00 | 6.06    | 16.06      | <b>10.71</b> |
| 4      | GBCH 2002 BGII              | 8.25  | 4.33    | 14.02      | <b>8.87</b>  |
| 5      | CHB 1 BG II                 | 6.90  | 1.05    | 11.34      | <b>6.43</b>  |
| 6      | PGCHB 64 BGII               | 6.83  | 5.83    | 16.98      | <b>9.88</b>  |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 9.29  | 6.14    | 18.94      | <b>11.46</b> |
| 8      | DACHB 93S39 BGII            | 13.65 | 4.19    | 16.59      | <b>11.48</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 9.05  | 6.27    | 17.97      | <b>11.10</b> |
| 10     | NCHB 5799 Bt II             | 12.06 | 4.75    | 15.18      | <b>10.66</b> |
| 11     | SP 7710 BGII                | 13.10 | 5.63    | 14.29      | <b>11.01</b> |
|        | CD @ 5%                     | 2.00  | 11.03   | 3.50       |              |
|        | CV %                        | 11.90 | 13.00   | 13.02      |              |



## Seed Cotton Yield at 165 DAS (q/ha) in Hirsutum x Barbadense Hybrids trial

| S. No. | Entries                     | Lam   | Dharwad | Coimbatore | Mean         |
|--------|-----------------------------|-------|---------|------------|--------------|
| 1      | KSP 5253 (HXB) BGII         | 5.45  | 9.74    | 12.06      | <b>9.08</b>  |
| 2      | ACHB 2111 BGII              | 7.09  | 11.97   | 11.56      | <b>10.21</b> |
| 3      | US 781 BGII                 | 6.67  | 10.91   | 15.64      | <b>11.07</b> |
| 4      | GBCH 2002 BGII              | 5.50  | 9.30    | 14.20      | <b>9.67</b>  |
| 5      | CHB 1 BG II                 | 4.60  | 8.74    | 14.40      | <b>9.25</b>  |
| 6      | PGCHB 64 BGII               | 4.55  | 10.19   | 10.41      | <b>8.38</b>  |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 6.19  | 11.45   | 9.22       | <b>8.95</b>  |
| 8      | DACHB 93S39 BGII            | 9.10  | 11.96   | 11.32      | <b>10.79</b> |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 6.03  | 10.98   | 13.70      | <b>10.24</b> |
| 10     | NCHB 5799 Bt II             | 8.04  | 9.73    | 15.35      | <b>11.04</b> |
| 11     | SP 7710 BGII                | 8.73  | 10.79   | 14.49      | <b>11.34</b> |
|        | CD @ 5%                     | 1.35  | 1.99    | 4.10       |              |
|        | CV %                        | 12.01 | 11.10   | 18.47      |              |

## Total Seed Cotton Yield (q/ha) in Hirsutum x Barbadense Hybrids trial

| S. No. | Entries                     | Lam   | Dharwad | Chamrajnagar | Coimbatore | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|-------|---------|--------------|------------|--------------|------|-----------------------|
| 1      | KSP 5253 (HXB) BGII         | 13.62 | 14.90   | 14.61        | 27.58      | <b>17.68</b> | 10   | -13.1                 |
| 2      | ACHB 2111 BGII              | 17.72 | 17.84   | 15.89        | 28.84      | <b>20.07</b> | 7    | -1.4                  |
| 3      | US 781 BGII                 | 16.67 | 16.96   | 22.44        | 31.69      | <b>21.94</b> | 1    | 7.8                   |
| 4      | GBCH 2002 BGII              | 13.76 | 13.63   | 21.52        | 28.22      | <b>19.28</b> | 8    | -5.2                  |
| 5      | CHB 1 BG II                 | 11.51 | 9.78    | 14.15        | 25.74      | <b>15.30</b> | 11   | -24.8                 |
| 6      | PGCHB 64 BGII               | 11.38 | 16.02   | 18.81        | 27.39      | <b>18.40</b> | 9    | -9.6                  |
| 7      | <b>MRC 7918 BG II (ZC1)</b> | 15.48 | 17.59   | 20.17        | 28.16      | <b>20.35</b> | 5    | 0.0                   |
| 8      | DACHB 93S39 BGII            | 22.75 | 16.15   | 18.51        | 27.91      | <b>21.33</b> | 3    | 4.8                   |
| 9      | <b>MRC 6918 BG II (ZC2)</b> | 15.08 | 17.26   | 17.06        | 31.68      | <b>20.27</b> | 6    | -0.4                  |
| 10     | NCHB 5799 Bt II             | 20.11 | 14.48   | 16.49        | 30.53      | <b>20.40</b> | 4    | 0.3                   |
| 11     | SP 7710 BGII                | 21.83 | 16.42   | 20.41        | 28.78      | <b>21.86</b> | 2    | 7.4                   |
|        | CD @ 5%                     | 3.34  | 2.47    | 2.11         | NS         |              |      |                       |
|        | CV %                        | 11.92 | 9.30    | 6.78         | 10.49      |              |      |                       |



### Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Combined HXB trial in South Zone under Protected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |    |      |             | Remark      |
|----------------------|-----------------------------------|------|----|------|-------------|-------------|
|                      | GU                                | DH   | CH | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 1.13                              | 2.09 | -  | 2.84 | <b>2.02</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 1.07                              | 1.89 | -  | 2.54 | <b>1.83</b> | <b>BETL</b> |
| US 781 BGII          | 1.30                              | 2.36 | -  | 1.84 | <b>1.83</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 1.37                              | 2.13 | -  | 5.01 | <b>2.84</b> | <b>BETL</b> |
| CHB 1 BG II          | 1.67                              | 1.91 | -  | 3.92 | <b>2.50</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 1.00                              | 2.13 | -  | 2.62 | <b>1.92</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 1.33                              | 2.42 | -  | 3.74 | <b>2.50</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 0.93                              | 2.60 | -  | 3.64 | <b>2.39</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 1.43                              | 3.31 | -  | 2.66 | <b>2.47</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 0.93                              | 2.58 | -  | 2.50 | <b>2.00</b> | <b>BETL</b> |
| SP 7710 BGII         | 1.00                              | 2.00 | -  | 3.29 | <b>2.10</b> | <b>BETL</b> |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | DH   | CH   | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 3.57                                   | 1.44 | 2.77 | 3.65 | <b>2.86</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 2.83                                   | 1.51 | 2.43 | 3.70 | <b>2.62</b> | <b>BETL</b> |
| US 781 BGII          | 3.13                                   | 2.07 | 1.91 | 2.99 | <b>2.53</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 3.80                                   | 1.89 | 1.97 | 2.41 | <b>2.52</b> | <b>BETL</b> |
| CHB 1 BG II          | 3.40                                   | 2.16 | 1.47 | 3.39 | <b>2.60</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 3.03                                   | 1.56 | 3.90 | 3.54 | <b>3.01</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 3.00                                   | 1.33 | 2.28 | 2.86 | <b>2.37</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 3.00                                   | 1.49 | 1.67 | 3.39 | <b>2.39</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 2.53                                   | 1.73 | 4.00 | 3.73 | <b>3.00</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 3.70                                   | 1.40 | 1.75 | 3.27 | <b>2.53</b> | <b>BETL</b> |
| SP 7710 BGII         | 4.13                                   | 2.13 | 3.41 | 2.88 | <b>3.14</b> | <b>BETL</b> |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore



**Table: Combined HXB trial in South Zone under Protected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |     |      | Remark |
|----------------------|-----------|----|-----|-----|------|--------|
|                      | GU        | DH | CH  | CBE | Mean |        |
| KSP 5253 (HXB) BGII  | II        | I  | II  | II  | II   |        |
| ACHB 2111 BGII       | II        | I  | II  | I   | II   |        |
| US 781 BGII          | II        | I  | II  | I   | II   |        |
| GBCH 2002 BGII       | III       | I  | II  | II  | II   |        |
| CHB 1 BG II          | III       | I  | II  | II  | II   |        |
| PGCHB 64 BGII        | III       | I  | III | II  | II   |        |
| MRC 7918 BG II (ZC1) | II        | I  | II  | II  | II   |        |
| DACHB 93S39 BGII     | III       | I  | II  | I   | II   |        |
| MRC 6918 BG II (ZC2) | II        | I  | III | II  | II   |        |
| NCHB 5799 Bt II      | III       | I  | II  | II  | II   |        |
| SP 7710 BGII         | II        | I  | III | II  | II   |        |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                 | DH   | CH   | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 3.83                               | 3.85 | 0.00 | 1.49 | <b>2.29</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 4.00                               | 3.18 | 0.00 | 2.22 | <b>2.35</b> | <b>BETL</b> |
| US 781 BGII          | 4.17                               | 2.98 | 0.68 | 1.53 | <b>2.34</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 3.83                               | 3.59 | 0.00 | 1.56 | <b>2.24</b> | <b>BETL</b> |
| CHB 1 BG II          | 3.27                               | 3.41 | 0.00 | 1.56 | <b>2.06</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 4.90                               | 2.67 | 1.85 | 1.36 | <b>2.69</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 4.73                               | 3.49 | 0.00 | 1.02 | <b>2.31</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 4.47                               | 4.43 | 0.00 | 1.04 | <b>2.48</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 4.43                               | 2.85 | 2.48 | 1.42 | <b>2.80</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 4.43                               | 5.61 | 0.00 | 0.84 | <b>2.72</b> | <b>BETL</b> |
| SP 7710 BGII         | 4.27                               | 6.41 | 0.00 | 1.16 | <b>2.96</b> | <b>BETL</b> |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | DH   | CH   | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 0.00                                 | 0.13 | 1.78 | 1.50 | <b>0.85</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 0.07                                 | 0.20 | 2.84 | 1.56 | <b>1.17</b> | <b>BETL</b> |
| US 781 BGII          | 0.03                                 | 0.16 | 1.98 | 1.01 | <b>0.80</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 0.00                                 | 0.00 | 1.93 | 1.21 | <b>0.78</b> | <b>BETL</b> |
| CHB 1 BG II          | 0.03                                 | 0.03 | 1.17 | 1.33 | <b>0.64</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 0.10                                 | 0.00 | 0.98 | 1.12 | <b>0.55</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 0.07                                 | 0.02 | 1.17 | 1.19 | <b>0.61</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 0.00                                 | 0.16 | 1.37 | 1.95 | <b>0.87</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 0.07                                 | 0.22 | 2.02 | 1.34 | <b>0.91</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 0.03                                 | 0.01 | 1.00 | 1.09 | <b>0.53</b> | <b>BETL</b> |
| SP 7710 BGII         | 0.17                                 | 0.03 | 1.17 | 1.30 | <b>0.67</b> | <b>BETL</b> |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore



**Table: Combined HXB trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |    |      |             | Remark |
|----------------------|-----------------------------|------|----|------|-------------|--------|
|                      | GU                          | DH   | CH | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 0.10                        | 0.73 | -  | 0.22 | <b>0.35</b> |        |
| ACHB 2111 BGII       | 0.17                        | 0.26 | -  | 0.18 | <b>0.20</b> |        |
| US 781 BGII          | 0.03                        | 0.26 | -  | 0.13 | <b>0.14</b> |        |
| GBCH 2002 BGII       | 0.17                        | 0.22 | -  | 0.16 | <b>0.18</b> |        |
| CHB 1 BG II          | 0.07                        | 0.42 | -  | 0.27 | <b>0.25</b> |        |
| PGCHB 64 BGII        | 0.13                        | 0.27 | -  | 0.16 | <b>0.18</b> |        |
| MRC 7918 BG II (ZC1) | 0.10                        | 0.73 | -  | 0.18 | <b>0.34</b> |        |
| DACHB 93S39 BGII     | 0.10                        | 2.72 | -  | 0.11 | <b>0.98</b> |        |
| MRC 6918 BG II (ZC2) | 0.20                        | 0.73 | -  | 0.09 | <b>0.34</b> |        |
| NCHB 5799 Bt II      | 0.10                        | 0.42 | -  | 0.20 | <b>0.24</b> |        |
| SP 7710 BGII         | 0.23                        | 0.18 | -  | 0.16 | <b>0.19</b> |        |

GU- Lam Guntur,DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Protected Conditions – *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |    |      |             | Remark |
|----------------------|--------------------------------------------|------|----|------|-------------|--------|
|                      | GU                                         | DH   | CH | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| ACHB 2111 BGII       | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| US 781 BGII          | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| GBCH 2002 BGII       | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| CHB 1 BG II          | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| PGCHB 64 BGII        | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 7918 BG II (ZC1) | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| DACHB 93S39 BGII     | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 6918 BG II (ZC2) | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| NCHB 5799 Bt II      | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| SP 7710 BGII         | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur,DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |    |      |             | Remark |
|----------------------|----------------------------------|------|----|------|-------------|--------|
|                      | GU                               | DH   | CH | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| ACHB 2111 BGII       | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| US 781 BGII          | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| GBCH 2002 BGII       | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| CHB 1 BG II          | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| PGCHB 64 BGII        | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 7918 BG II (ZC1) | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| DACHB 93S39 BGII     | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 6918 BG II (ZC2) | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| NCHB 5799 Bt II      | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| SP 7710 BGII         | 0.00                             | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur,DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore



**Table: Combined HXB trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plant) |      |    |      |             | Remark      |
|----------------------|----------------------------------------|------|----|------|-------------|-------------|
|                      | GU                                     | DH   | CH | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 0.03                                   | 0.00 | -  | 0.00 | <b>0.01</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 0.13                                   | 0.00 | -  | 0.00 | <b>0.04</b> | <b>BETL</b> |
| US 781 BGII          | 0.00                                   | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 0.07                                   | 0.00 | -  | 0.00 | <b>0.02</b> | <b>BETL</b> |
| CHB 1 BG II          | 0.17                                   | 0.00 | -  | 0.00 | <b>0.06</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 0.00                                   | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 0.03                                   | 0.00 | -  | 0.00 | <b>0.01</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 0.10                                   | 0.00 | -  | 0.00 | <b>0.03</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 0.07                                   | 0.00 | -  | 0.00 | <b>0.02</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 0.00                                   | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| SP 7710 BGII         | 0.10                                   | 0.00 | -  | 0.00 | <b>0.03</b> | <b>BETL</b> |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                                      | DH   | CH*  | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 1.00                                                    | 0.33 | 5.00 | 0.33 | <b>1.67</b> | <b>AETL</b> |
| ACHB 2111 BGII       | 0.33                                                    | 0.33 | 4.33 | 0.56 | <b>1.39</b> | <b>AETL</b> |
| US 781 BGII          | 0.67                                                    | 0.89 | 1.33 | 0.78 | <b>0.92</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 0.50                                                    | 0.89 | 1.67 | 0.11 | <b>0.79</b> | <b>BETL</b> |
| CHB 1 BG II          | 1.00                                                    | 0.78 | 5.67 | 0.44 | <b>1.97</b> | <b>AETL</b> |
| PGCHB 64 BGII        | 0.83                                                    | 0.89 | 2.67 | 0.56 | <b>1.24</b> | <b>AETL</b> |
| MRC 7918 BG II (ZC1) | 1.17                                                    | 0.33 | 2.33 | 0.00 | <b>0.96</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 1.17                                                    | 1.00 | 3.00 | 0.11 | <b>1.32</b> | <b>AETL</b> |
| MRC 6918 BG II (ZC2) | 0.33                                                    | 0.33 | 3.67 | 0.33 | <b>1.17</b> | <b>AETL</b> |
| NCHB 5799 Bt II      | 1.17                                                    | 0.56 | 4.00 | 0.33 | <b>1.51</b> | <b>AETL</b> |
| SP 7710 BGII         | 0.83                                                    | 0.11 | 2.00 | 0.67 | <b>0.90</b> | <b>BETL</b> |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore, \* -No. of PBW/20 Bolls,





**Table: Combined HXB trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |             | Remark      |
|----------------------|-----------------------------------------|------|----|------|-------------|-------------|
|                      | GU                                      | DH   | CH | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| US 781 BGII          | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| CHB 1 BG II          | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 0.00                                    | 0.00 | -  | 0.93 | <b>0.31</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |
| SP 7710 BGII         | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | <b>BETL</b> |

**GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore**

**Table: Combined HXB trial in South Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |       |       |       |              | Remark      |
|----------------------|-------------------------------------------------------|-------|-------|-------|--------------|-------------|
|                      | GU                                                    | DH    | CH    | CBE   | Mean         |             |
| KSP 5253 (HXB) BGII  | 6.67                                                  | 6.67  | 17.27 | 16.67 | <b>11.82</b> | <b>AETL</b> |
| ACHB 2111 BGII       | 3.33                                                  | 7.78  | 16.61 | 15.00 | <b>10.68</b> | <b>AETL</b> |
| US 781 BGII          | 6.67                                                  | 12.22 | 4.58  | 15.00 | <b>9.62</b>  | <b>BETL</b> |
| GBCH 2002 BGII       | 3.33                                                  | 11.11 | 5.83  | 15.00 | <b>8.82</b>  | <b>BETL</b> |
| CHB 1 BG II          | 6.67                                                  | 12.22 | 17.77 | 10.00 | <b>11.66</b> | <b>AETL</b> |
| PGCHB 64 BGII        | 6.67                                                  | 7.78  | 10.73 | 15.00 | <b>10.04</b> | <b>AETL</b> |
| MRC 7918 BG II (ZC1) | 6.67                                                  | 5.56  | 6.99  | 11.67 | <b>7.72</b>  | <b>BETL</b> |
| DACHB 93S39 BGII     | 8.33                                                  | 10.00 | 12.79 | 8.33  | <b>9.86</b>  | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 3.33                                                  | 6.67  | 14.32 | 5.00  | <b>7.33</b>  | <b>BETL</b> |
| NCHB 5799 Bt II      | 10.00                                                 | 8.89  | 15.78 | 10.00 | <b>11.17</b> | <b>AETL</b> |
| SP 7710 BGII         | 8.33                                                  | 6.67  | 6.12  | 15.00 | <b>9.03</b>  | <b>BETL</b> |

**GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore**



**Table: Combined HXB trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |      |       |       |              | Remark |
|----------------------|----------------------|------|-------|-------|--------------|--------|
|                      | GU                   | DH   | CH    | CBE   | Mean         |        |
| KSP 5253 (HXB) BGII  | 8.94                 | 2.74 | 19.23 | 7.03  | <b>9.49</b>  |        |
| ACHB 2111 BGII       | 7.35                 | 4.76 | 18.52 | 2.84  | <b>8.37</b>  |        |
| US 781 BGII          | 9.16                 | 7.54 | 5.67  | 11.94 | <b>8.58</b>  |        |
| GBCH 2002 BGII       | 6.52                 | 7.51 | 6.47  | 7.13  | <b>6.91</b>  |        |
| CHB 1 BG II          | 8.19                 | 6.68 | 19.78 | 6.24  | <b>10.22</b> |        |
| PGCHB 64 BGII        | 7.62                 | 4.82 | 12.44 | 6.71  | <b>7.90</b>  |        |
| MRC 7918 BG II (ZC1) | 9.00                 | 4.18 | 8.52  | 6.63  | <b>7.08</b>  |        |
| DACHB 93S39 BGII     | 9.62                 | 4.23 | 14.63 | 8.83  | <b>9.33</b>  |        |
| MRC 6918 BG II (ZC2) | 6.21                 | 4.90 | 16.27 | 6.62  | <b>8.50</b>  |        |
| NCHB 5799 Bt II      | 5.65                 | 5.15 | 17.61 | 6.12  | <b>8.63</b>  |        |
| SP 7710 BGII         | 7.69                 | 2.56 | 7.11  | 8.53  | <b>6.47</b>  |        |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Protected Conditions –Locule Damage**

| Name of Entry        | Locule Damage (%) |       |       |      |              | Remark |
|----------------------|-------------------|-------|-------|------|--------------|--------|
|                      | GU                | DH    | CH    | CBE  | Mean         |        |
| KSP 5253 (HXB) BGII  | 4.54              | 6.83  | 22.37 | 2.81 | <b>9.14</b>  |        |
| ACHB 2111 BGII       | 2.61              | 8.17  | 21.07 | 1.22 | <b>8.27</b>  |        |
| US 781 BGII          | 4.16              | 9.94  | 8.82  | 4.04 | <b>6.74</b>  |        |
| GBCH 2002 BGII       | 3.04              | 10.55 | 9.51  | 2.66 | <b>6.44</b>  |        |
| CHB 1 BG II          | 2.97              | 12.94 | 22.69 | 2.65 | <b>10.31</b> |        |
| PGCHB 64 BGII        | 2.33              | 7.89  | 15.63 | 2.81 | <b>7.16</b>  |        |
| MRC 7918 BG II (ZC1) | 5.00              | 7.94  | 11.79 | 2.92 | <b>6.91</b>  |        |
| DACHB 93S39 BGII     | 3.85              | 12.72 | 17.89 | 4.70 | <b>9.79</b>  |        |
| MRC 6918 BG II (ZC2) | 2.62              | 5.89  | 19.97 | 3.09 | <b>7.89</b>  |        |
| NCHB 5799 Bt II      | 2.15              | 7.39  | 20.76 | 2.83 | <b>8.28</b>  |        |
| SP 7710 BGII         | 2.79              | 5.72  | 10.23 | 3.68 | <b>5.60</b>  |        |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore



**Table: Combined HXB trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect-pests |      |    |      |             | Remark |
|----------------------|-----------------------------------|------|----|------|-------------|--------|
|                      | GU                                | DH   | CH | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| ACHB 2111 BGII       | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| US 781 BGII          | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| GBCH 2002 BGII       | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| CHB 1 BG II          | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| PGCHB 64 BGII        | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| MRC 7918 BG II (ZC1) | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| DACHB 93S39 BGII     | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| MRC 6918 BG II (ZC2) | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| NCHB 5799 Bt II      | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |
| SP 7710 BGII         | 5.00                              | 5.00 | -  | 4.00 | <b>4.67</b> |        |

GU- Lam Guntur, DH-Dharwad, CH-Chamarajanagar, CBE- Coimbatore



## Reaction to Diseases

Table 6(a): Combined Evaluation trial of Interspecific H X B Hybrids-Irrigated (CET- Hybrids IRR) under Protected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |             |    |      |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-------------|----|------|----|------|----|
|        |         |                      | UAS, Dharwad                                              |    |      |    |      |    |      |    | LAM, Guntur |    |      |    |      |    |
|        |         |                      | ALB                                                       |    | BLB  |    | GM   |    | Rust |    | CoLS        |    | GM   |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI         | DR | PDI  | DR | PDI  | DR |
| 6      | 55101   | KSP 5253 (HXB) BGII  | 17.9                                                      | R  | 10.8 | R  | 18.3 | R  | 18.3 | R  | 24.8        | R  | 10.5 | R  | 13.0 | R  |
| 11     | 55102   | ACHB 2111 BGII       | 17.7                                                      | R  | 10.4 | R  | 17.6 | R  | 18.4 | R  | 26.3        | MR | 12.0 | R  | 25.8 | MR |
| 1      | 55103   | US 781 BGII          | 20.1                                                      | R  | 10.1 | R  | 17.3 | R  | 18.2 | R  | 34.0        | MR | 9.3  | R  | 16.5 | R  |
| 8      | 55104   | GBCH 2002 BGII       | 18.6                                                      | R  | 10.1 | R  | 17.6 | R  | 18.2 | R  | 30.3        | MR | 10.8 | R  | 12.0 | R  |
| 3      | 55105   | CHB 1 BG II          | 18.6                                                      | R  | 9.2  | R  | 17.5 | R  | 18.7 | R  | 27.8        | MR | 14.2 | R  | 29.5 | MR |
| 10     | 55106   | PGCHB 64 BGII        | 18.5                                                      | R  | 9.7  | R  | 17.3 | R  | 18.4 | R  | 28.2        | MR | 18.5 | R  | 10.8 | R  |
| 4      | 55107   | MRC 7918 BG II (ZC1) | 13.3                                                      | R  | 9.8  | R  | 18.0 | R  | 17.9 | R  | 29.5        | MR | 13.1 | R  | 16.2 | R  |
| 9      | 55108   | DACHB 93S39 BGII     | 17.0                                                      | R  | 8.6  | R  | 10.5 | R  | 19.2 | R  | 22.8        | R  | 10.3 | R  | 13.5 | R  |
| 7      | 55109   | MRC 6918 BG II (ZC2) | 16.4                                                      | R  | 9.8  | R  | 17.3 | R  | 17.6 | R  | 30.5        | MR | 9.5  | R  | 30.8 | MR |
| 2      | 55110   | NCHB 5799 Bt II      | 18.0                                                      | R  | 9.2  | R  | 15.4 | R  | 18.6 | R  | 27.8        | MR | 10.8 | R  | 26.0 | MR |
| 5      | 55111   | SP 7710 BGII         | 17.3                                                      | R  | 9.0  | R  | 18.3 | R  | 17.9 | R  | 20.3        | R  | 16.3 | R  | 10.0 | MR |

Table 6(b): Combined Evaluation trial of Interspecific H X B Hybrids-Irrigated (CET- Hybrids IRR) under Protected

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | CICR RS, Coimbatore                                       |    |          |    |     |    |     |    |      |    |
|        |         |                      | ALS                                                       |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 6      | 55101   | KSP 5253 (HXB) BGII  | 5.3                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 6.8  | R  |
| 11     | 55102   | ACHB 2111 BGII       | 5.8                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.2  | R  |
| 1      | 55103   | US 781 BGII          | 5.2                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 5.3  | R  |
| 8      | 55104   | GBCH 2002 BGII       | 5.8                                                       | R  | 0.0      | DF | 0.0 | DF | 0.2 | R  | 10.5 | R  |
| 3      | 55105   | CHB 1 BG II          | 8.2                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 9.0  | R  |
| 10     | 55106   | PGCHB 64 BGII        | 7.2                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 9.5  | R  |
| 4      | 55107   | MRC 7918 BG II (ZC1) | 6.8                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 7.7  | R  |
| 9      | 55108   | DACHB 93S39 BGII     | 6.2                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 7.8  | R  |
| 7      | 55109   | MRC 6918 BG II (ZC2) | 6.0                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 7.3  | R  |
| 2      | 55110   | NCHB 5799 Bt II      | 4.0                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.5  | R  |
| 5      | 55111   | SP 7710 BGII         | 5.3                                                       | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 8.8  | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |       |       |             | Remark      |
|----------------------|-----------------------------------|------|-------|-------|-------------|-------------|
|                      | GU                                | DH   | CH    | CBE   | Mean        |             |
| KSP 5253 (HXB) BGII  | 4.77                              | 7.73 | 5.29  | 10.27 | <b>6.77</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 5.60                              | 6.82 | 4.49  | 7.33  | <b>7.56</b> | <b>BETL</b> |
| US 781 BGII          | 4.80                              | 7.09 | 4.33  | 6.60  | <b>7.10</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 6.43                              | 8.02 | 9.18  | 20.60 | <b>8.05</b> | <b>BETL</b> |
| CHB 1 BG II          | 5.43                              | 7.27 | 8.78  | 21.27 | <b>7.72</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 7.37                              | 6.67 | 9.89  | 17.67 | <b>8.34</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 5.17                              | 7.29 | 10.84 | 22.13 | <b>8.56</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 6.07                              | 7.40 | 7.44  | 15.80 | <b>8.46</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 7.37                              | 7.27 | 2.58  | 4.13  | <b>8.07</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 4.90                              | 7.24 | 6.42  | 11.40 | <b>7.25</b> | <b>BETL</b> |
| SP 7710 BGII         | 7.03                              | 6.78 | 10.44 | 18.40 | <b>9.75</b> | <b>BETL</b> |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | DH   | CH   | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 10.27                                  | 3.49 | 2.78 | 6.11 | <b>5.66</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 11.23                                  | 3.47 | 2.43 | 5.24 | <b>5.59</b> | <b>BETL</b> |
| US 781 BGII          | 10.07                                  | 3.27 | 1.88 | 3.42 | <b>4.66</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 10.57                                  | 2.62 | 1.95 | 4.64 | <b>4.95</b> | <b>BETL</b> |
| CHB 1 BG II          | 11.77                                  | 2.80 | 1.50 | 4.69 | <b>5.19</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 10.43                                  | 3.04 | 3.92 | 5.78 | <b>5.79</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 11.03                                  | 3.56 | 2.42 | 2.09 | <b>4.77</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 10.17                                  | 3.24 | 1.65 | 5.22 | <b>5.07</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 10.13                                  | 2.51 | 4.00 | 2.56 | <b>4.80</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 10.90                                  | 3.56 | 1.79 | 4.91 | <b>5.29</b> | <b>BETL</b> |
| SP 7710 BGII         | 9.83                                   | 2.93 | 3.31 | 4.27 | <b>5.09</b> | <b>BETL</b> |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore



**Table: Combined HXB trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |     |      | Remark |
|----------------------|-----------|----|-----|-----|------|--------|
|                      | GU        | DH | CH  | CBE | Mean |        |
| KSP 5253 (HXB) BGII  | III       | II | II  | III | III  |        |
| ACHB 2111 BGII       | III       | II | II  | III | III  |        |
| US 781 BGII          | III       | II | II  | II  | II   |        |
| GBCH 2002 BGII       | III       | II | II  | II  | II   |        |
| CHB 1 BG II          | IV        | II | II  | II  | III  |        |
| PGCHB 64 BGII        | III       | II | III | III | III  |        |
| MRC 7918 BG II (ZC1) | III       | II | II  | II  | II   |        |
| DACHB 93S39 BGII     | IV        | II | II  | III | III  |        |
| MRC 6918 BG II (ZC2) | IV        | II | III | III | III  |        |
| NCHB 5799 Bt II      | IV        | II | II  | II  | III  |        |
| SP 7710 BGII         | III       | II | III | II  | III  |        |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |       |      |      |             | Remark      |
|----------------------|------------------------------------|-------|------|------|-------------|-------------|
|                      | GU                                 | DH    | CH   | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 7.97                               | 15.31 | 0.00 | 1.67 | <b>6.24</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 8.37                               | 13.89 | 0.00 | 2.33 | <b>6.15</b> | <b>BETL</b> |
| US 781 BGII          | 6.37                               | 14.09 | 0.63 | 1.40 | <b>5.62</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 8.27                               | 13.42 | 0.00 | 3.87 | <b>6.39</b> | <b>BETL</b> |
| CHB 1 BG II          | 6.17                               | 16.07 | 0.00 | 2.67 | <b>6.23</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 7.37                               | 16.98 | 2.15 | 1.47 | <b>6.99</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 8.53                               | 16.67 | 0.00 | 3.20 | <b>7.10</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 5.97                               | 15.62 | 0.00 | 2.40 | <b>6.00</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 7.60                               | 13.64 | 2.48 | 1.37 | <b>6.27</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 8.20                               | 13.84 | 0.00 | 1.40 | <b>5.86</b> | <b>BETL</b> |
| SP 7710 BGII         | 8.13                               | 16.27 | 0.00 | 2.93 | <b>6.83</b> | <b>BETL</b> |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | DH   | CH   | CBE  | Mean        |             |
| KSP 5253 (HXB) BGII  | 1.03                                 | 1.09 | 1.80 | 2.60 | <b>1.63</b> | <b>BETL</b> |
| ACHB 2111 BGII       | 1.23                                 | 1.08 | 2.88 | 2.87 | <b>2.01</b> | <b>BETL</b> |
| US 781 BGII          | 0.10                                 | 1.06 | 1.98 | 2.07 | <b>1.30</b> | <b>BETL</b> |
| GBCH 2002 BGII       | 1.37                                 | 0.92 | 2.00 | 2.07 | <b>1.59</b> | <b>BETL</b> |
| CHB 1 BG II          | 0.63                                 | 0.73 | 1.00 | 2.27 | <b>1.16</b> | <b>BETL</b> |
| PGCHB 64 BGII        | 0.23                                 | 1.24 | 0.98 | 2.00 | <b>1.11</b> | <b>BETL</b> |
| MRC 7918 BG II (ZC1) | 1.07                                 | 1.43 | 1.09 | 3.27 | <b>1.71</b> | <b>BETL</b> |
| DACHB 93S39 BGII     | 0.67                                 | 0.96 | 1.35 | 2.53 | <b>1.38</b> | <b>BETL</b> |
| MRC 6918 BG II (ZC2) | 1.13                                 | 0.92 | 2.03 | 2.53 | <b>1.65</b> | <b>BETL</b> |
| NCHB 5799 Bt II      | 0.97                                 | 1.30 | 1.00 | 2.40 | <b>1.42</b> | <b>BETL</b> |
| SP 7710 BGII         | 1.20                                 | 1.43 | 1.08 | 2.53 | <b>1.56</b> | <b>BETL</b> |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore



**Table: Combined HXB trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | DH   | CH   | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 0.17                        | 1.04 | 1.93 | 0.00 | <b>0.78</b> |        |
| ACHB 2111 BGII       | 0.33                        | 0.51 | 1.53 | 0.13 | <b>0.63</b> |        |
| US 781 BGII          | 0.20                        | 0.82 | 1.61 | 0.27 | <b>0.72</b> |        |
| GBCH 2002 BGII       | 0.23                        | 1.02 | 0.93 | 0.20 | <b>0.60</b> |        |
| CHB 1 BG II          | 0.10                        | 0.53 | 1.93 | 0.40 | <b>0.74</b> |        |
| PGCHB 64 BGII        | 0.20                        | 0.64 | 2.37 | 0.40 | <b>0.90</b> |        |
| MRC 7918 BG II (ZC1) | 0.10                        | 0.44 | 1.95 | 0.47 | <b>0.74</b> |        |
| DACHB 93S39 BGII     | 0.13                        | 0.69 | 1.97 | 0.13 | <b>0.73</b> |        |
| MRC 6918 BG II (ZC2) | 0.20                        | 1.07 | 2.05 | 0.13 | <b>0.86</b> |        |
| NCHB 5799 Bt II      | 0.13                        | 0.91 | 1.19 | 0.40 | <b>0.66</b> |        |
| SP 7710 BGII         | 0.27                        | 0.98 | 2.49 | 0.20 | <b>0.98</b> |        |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |    |      |             | Remark |
|----------------------|--------------------------------------------|------|----|------|-------------|--------|
|                      | GU                                         | DH   | CH | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| ACHB 2111 BGII       | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| US 781 BGII          | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| GBCH 2002 BGII       | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| CHB 1 BG II          | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| PGCHB 64 BGII        | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 7918 BG II (ZC1) | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| DACHB 93S39 BGII     | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 6918 BG II (ZC2) | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| NCHB 5799 Bt II      | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| SP 7710 BGII         | 0.00                                       | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |    |      |      | Remark |
|----------------------|----------------------------------|------|----|------|------|--------|
|                      | GU                               | DH   | CH | CBE  | Mean |        |
| KSP 5253 (HXB) BGII  | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| ACHB 2111 BGII       | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| US 781 BGII          | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| GBCH 2002 BGII       | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| CHB 1 BG II          | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| PGCHB 64 BGII        | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| MRC 7918 BG II (ZC1) | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| DACHB 93S39 BGII     | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| MRC 6918 BG II (ZC2) | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| NCHB 5799 Bt II      | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |
| SP 7710 BGII         | 0.00                             | 0.00 | -  | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore





**Table: Combined HXB trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plant) |      |    |      |             | Remark |
|----------------------|----------------------------------------|------|----|------|-------------|--------|
|                      | GU                                     | DH   | CH | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 0.67                                   | 0.00 | -  | 0.00 | <b>0.22</b> | BETL   |
| ACHB 2111 BGII       | 0.50                                   | 0.00 | -  | 0.00 | <b>0.17</b> | BETL   |
| US 781 BGII          | 0.00                                   | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| GBCH 2002 BGII       | 0.53                                   | 0.00 | -  | 0.00 | <b>0.18</b> | BETL   |
| CHB 1 BG II          | 0.40                                   | 0.00 | -  | 0.00 | <b>0.13</b> | BETL   |
| PGCHB 64 BGII        | 0.43                                   | 0.00 | -  | 0.00 | <b>0.14</b> | BETL   |
| MRC 7918 BG II (ZC1) | 0.60                                   | 0.00 | -  | 0.00 | <b>0.20</b> | BETL   |
| DACHB 93S39 BGII     | 0.53                                   | 0.00 | -  | 0.00 | <b>0.18</b> | BETL   |
| MRC 6918 BG II (ZC2) | 0.77                                   | 0.00 | -  | 0.00 | <b>0.26</b> | BETL   |
| NCHB 5799 Bt II      | 0.57                                   | 0.00 | -  | 0.00 | <b>0.19</b> | BETL   |
| SP 7710 BGII         | 0.53                                   | 0.00 | -  | 0.00 | <b>0.18</b> | BETL   |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions-Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark |
|----------------------|---------------------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                                      | DH   | CH*  | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 4.33                                                    | 1.33 | 5.50 | 0.00 | <b>2.79</b> | AETL   |
| ACHB 2111 BGII       | 4.67                                                    | 1.56 | 5.00 | 0.00 | <b>2.81</b> | AETL   |
| US 781 BGII          | 5.67                                                    | 3.11 | 2.00 | 0.00 | <b>2.69</b> | AETL   |
| GBCH 2002 BGII       | 3.83                                                    | 3.11 | 2.50 | 0.67 | <b>2.53</b> | AETL   |
| CHB 1 BG II          | 5.17                                                    | 1.56 | 6.50 | 0.00 | <b>3.31</b> | AETL   |
| PGCHB 64 BGII        | 5.17                                                    | 1.89 | 3.50 | 1.33 | <b>2.97</b> | AETL   |
| MRC 7918 BG II (ZC1) | 5.33                                                    | 1.33 | 3.00 | 0.67 | <b>2.58</b> | AETL   |
| DACHB 93S39 BGII     | 3.33                                                    | 2.56 | 3.50 | 1.00 | <b>2.60</b> | AETL   |
| MRC 6918 BG II (ZC2) | 6.00                                                    | 1.67 | 4.50 | 1.00 | <b>3.29</b> | AETL   |
| NCHB 5799 Bt II      | 4.83                                                    | 1.44 | 5.00 | 1.33 | <b>3.15</b> | AETL   |
| SP 7710 BGII         | 4.67                                                    | 0.89 | 2.50 | 1.00 | <b>2.26</b> | AETL   |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore , \*20 Green Bolls

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |             | Remark |
|----------------------|-----------------------------------------|------|----|------|-------------|--------|
|                      | GU                                      | DH   | CH | CBE  | Mean        |        |
| KSP 5253 (HXB) BGII  | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| ACHB 2111 BGII       | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| US 781 BGII          | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| GBCH 2002 BGII       | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| CHB 1 BG II          | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| PGCHB 64 BGII        | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 7918 BG II (ZC1) | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| DACHB 93S39 BGII     | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| MRC 6918 BG II (ZC2) | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| NCHB 5799 Bt II      | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |
| SP 7710 BGII         | 0.00                                    | 0.00 | -  | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore



**Table: Combined HXB trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |       |       |       |              | Remark |
|----------------------|-------------------------------------------------------|-------|-------|-------|--------------|--------|
|                      | GU                                                    | DH    | CH    | CBE   | Mean         |        |
| KSP 5253 (HXB) BGII  | 28.33                                                 | 13.33 | 18.28 | 15.00 | <b>18.74</b> | AETL   |
| ACHB 2111 BGII       | 33.33                                                 | 13.33 | 15.41 | 15.00 | <b>19.27</b> | AETL   |
| US 781 BGII          | 41.67                                                 | 20.00 | 4.88  | 20.00 | <b>21.64</b> | AETL   |
| GBCH 2002 BGII       | 30.00                                                 | 21.11 | 5.13  | 15.00 | <b>17.81</b> | AETL   |
| CHB 1 BG II          | 31.67                                                 | 18.89 | 19.05 | 20.00 | <b>22.40</b> | AETL   |
| PGCHB 64 BGII        | 33.33                                                 | 16.67 | 11.84 | 45.00 | <b>26.71</b> | AETL   |
| MRC 7918 BG II (ZC1) | 33.33                                                 | 10.00 | 6.26  | 20.00 | <b>17.40</b> | AETL   |
| DACHB 93S39 BGII     | 28.33                                                 | 14.44 | 14.01 | 35.00 | <b>22.95</b> | AETL   |
| MRC 6918 BG II (ZC2) | 41.67                                                 | 10.00 | 13.21 | 15.00 | <b>19.97</b> | AETL   |
| NCHB 5799 Bt II      | 28.33                                                 | 15.56 | 16.86 | 25.00 | <b>21.44</b> | AETL   |
| SP 7710 BGII         | 30.00                                                 | 12.22 | 6.69  | 15.00 | <b>15.98</b> | AETL   |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | DH    | CH    | CBE   | Mean         |        |
| KSP 5253 (HXB) BGII  | 54.61                | 8.76  | 19.41 | 31.21 | <b>28.50</b> |        |
| ACHB 2111 BGII       | 62.14                | 12.64 | 16.54 | 22.77 | <b>28.52</b> |        |
| US 781 BGII          | 50.67                | 17.41 | 6.01  | 25.89 | <b>24.99</b> |        |
| GBCH 2002 BGII       | 46.85                | 13.52 | 6.26  | 30.48 | <b>24.27</b> |        |
| CHB 1 BG II          | 55.23                | 14.04 | 20.18 | 26.59 | <b>29.01</b> |        |
| PGCHB 64 BGII        | 41.62                | 10.23 | 12.97 | 57.93 | <b>30.69</b> |        |
| MRC 7918 BG II (ZC1) | 43.57                | 10.62 | 7.39  | 39.83 | <b>25.35</b> |        |
| DACHB 93S39 BGII     | 39.67                | 17.20 | 15.14 | 36.56 | <b>27.14</b> |        |
| MRC 6918 BG II (ZC2) | 48.72                | 9.41  | 14.34 | 38.60 | <b>27.77</b> |        |
| NCHB 5799 Bt II      | 36.10                | 11.40 | 17.99 | 33.96 | <b>24.86</b> |        |
| SP 7710 BGII         | 41.28                | 8.94  | 7.82  | 39.98 | <b>24.50</b> |        |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore

**Table: Combined HXB trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |       |       |       |              | Remark |
|----------------------|-------------------|-------|-------|-------|--------------|--------|
|                      | GU                | DH    | CH    | CBE   | Mean         |        |
| KSP 5253 (HXB) BGII  | 30.15             | 10.83 | 20.88 | 14.67 | <b>19.13</b> |        |
| ACHB 2111 BGII       | 29.64             | 12.17 | 18.01 | 8.82  | <b>17.16</b> |        |
| US 781 BGII          | 27.82             | 16.67 | 7.48  | 10.92 | <b>15.72</b> |        |
| GBCH 2002 BGII       | 24.17             | 14.33 | 7.73  | 11.88 | <b>14.53</b> |        |
| CHB 1 BG II          | 26.69             | 18.00 | 21.65 | 12.48 | <b>19.71</b> |        |
| PGCHB 64 BGII        | 22.97             | 10.16 | 14.44 | 35.26 | <b>20.71</b> |        |
| MRC 7918 BG II (ZC1) | 25.37             | 10.61 | 8.86  | 24.34 | <b>17.29</b> |        |
| DACHB 93S39 BGII     | 19.37             | 18.83 | 16.61 | 24.39 | <b>19.80</b> |        |
| MRC 6918 BG II (ZC2) | 22.78             | 8.83  | 15.81 | 21.57 | <b>17.25</b> |        |
| NCHB 5799 Bt II      | 18.59             | 10.11 | 19.46 | 19.00 | <b>16.79</b> |        |
| SP 7710 BGII         | 23.58             | 9.17  | 9.29  | 18.80 | <b>15.21</b> |        |

GU- Lam Guntur, DH- Dharwad, CH-Chamarajanagar, CBE- Coimbatore



## Reaction to Diseases

**Table 6(c): Combined Evaluation trial of Interspecific H X B Hybrids-Irrigated (CET- Hybrids IRR) under Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |             |    |      |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|-------------|----|------|----|------|----|
|        |         |                      | UAS Dharwad                                                 |    |      |    |      |    |      |    | LAM, Guntur |    |      |    |      |    |
|        |         |                      | ALB                                                         |    | BLB  |    | GM   |    | Rust |    | CoLS        |    | GM   |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI         | DR | PDI  | DR | PDI  | DR |
| 6      | 55101   | KSP 5253 (HXB) BGII  | 27.1                                                        | MR | 11.9 | R  | 18.2 | R  | 19.5 | R  | 26.8        | MR | 14.3 | R  | 15.3 | R  |
| 11     | 55102   | ACHB 2111 BGII       | 26.3                                                        | MR | 11.4 | R  | 18.2 | R  | 17.1 | R  | 30.0        | MR | 16.1 | R  | 26.0 | MR |
| 1      | 55103   | US 781 BGII          | 29.6                                                        | MR | 12.7 | R  | 18.0 | R  | 20.2 | R  | 44.3        | MR | 13.3 | R  | 19.3 | R  |
| 8      | 55104   | GBCH 2002 BGII       | 25.0                                                        | R  | 12.3 | R  | 18.0 | R  | 20.9 | R  | 32.5        | MR | 16.0 | R  | 16.0 | R  |
| 3      | 55105   | CHB 1 BG II          | 28.2                                                        | MR | 11.9 | R  | 18.2 | R  | 20.1 | R  | 29.0        | MR | 18.5 | R  | 32.0 | MR |
| 10     | 55106   | PGCHB 64 BGII        | 27.7                                                        | MR | 11.4 | R  | 17.5 | R  | 19.6 | R  | 31.0        | MR | 29.0 | MR | 11.5 | R  |
| 4      | 55107   | MRC 7918 BG II (ZC1) | 22.6                                                        | R  | 10.9 | R  | 18.2 | R  | 19.2 | R  | 32.5        | MR | 17.5 | R  | 19.0 | R  |
| 9      | 55108   | DACHB 93S39 BGII     | 25.4                                                        | MR | 11.8 | R  | 10.5 | R  | 19.6 | R  | 27.0        | MR | 14.3 | R  | 26.0 | MR |
| 7      | 55109   | MRC 6918 BG II (ZC2) | 26.4                                                        | MR | 10.8 | R  | 17.9 | R  | 18.9 | R  | 40.3        | MR | 10.0 | R  | 33.0 | MR |
| 2      | 55110   | NCHB 5799 Bt II      | 28.5                                                        | MR | 11.3 | R  | 13.7 | R  | 19.6 | R  | 31.3        | MR | 12.3 | R  | 26.8 | MR |
| 5      | 55111   | SP 7710 BGII         | 24.3                                                        | MR | 11.8 | R  | 18.0 | R  | 19.1 | R  | 27.3        | MR | 18.5 | R  | 13.5 | MR |

**Table 6(d): Combined Evaluation trial of Interspecific H X B Hybrids-Irrigated (CET- Hybrids IRR) under Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | CICR RS, Coimbatore                                         |    |          |    |     |    |     |    |      |    |
|        |         |                      | ALS                                                         |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 6      | 55101   | KSP 5253 (HXB) BGII  | 6.0                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | DF |
| 11     | 55102   | ACHB 2111 BGII       | 5.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.0  | R  |
| 1      | 55103   | US 781 BGII          | 4.5                                                         | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 3.0  | R  |
| 8      | 55104   | GBCH 2002 BGII       | 3.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 5.0  | R  |
| 3      | 55105   | CHB 1 BG II          | 4.0                                                         | R  | 0.0      | DF | 1.0 | R  | 0.0 | DF | 4.5  | R  |
| 10     | 55106   | PGCHB 64 BGII        | 6.0                                                         | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 6.5  | R  |
| 4      | 55107   | MRC 7918 BG II (ZC1) | 4.5                                                         | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 0.0  | DF |
| 9      | 55108   | DACHB 93S39 BGII     | 3.5                                                         | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.5  | R  |
| 7      | 55109   | MRC 6918 BG II (ZC2) | 0.0                                                         | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 0.0  | DF |
| 2      | 55110   | NCHB 5799 Bt II      | 5.0                                                         | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 6.0  | R  |
| 5      | 55111   | SP 7710 BGII         | 4.5                                                         | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 5.5  | R  |

## Initial Evaluation Trial of Hirsutum Varieties-Irrigated

### *Constitution of Trial*

The trial was constituted with 19 Bt cotton varieties containing deregulated events along with two different check varieties as furnished below.

| S. No. | Code-I    | Code -II     | Entries                     | Sponsored by     |
|--------|-----------|--------------|-----------------------------|------------------|
| 1      | 12        | 55121        | MCU 5-VT Bt                 | CICR, Coimbatore |
| 2      | 18        | 55122        | Surabhi Bt                  | CICR, Coimbatore |
| 3      | 21        | 55123        | CCH 19-2 Bt                 | CICR, Coimbatore |
| 4      | 1         | 55124        | Sunantha Bt                 | CICR, Coimbatore |
| 5      | 15        | 55125        | WGCV Bt 139                 | Warangal         |
| 6      | 6         | 55126        | RAHBt 27                    | UAS, Raichur     |
| 7      | 9         | 55127        | Suraj Super Bt              | CICR, Coimbatore |
| 8      | <b>2</b>  | <b>55128</b> | <b>PKV 081 Bt (ZC Bt-2)</b> |                  |
| 9      | 20        | 55129        | WGCV Bt 134                 | Warangal         |
| 10     | 11        | 55130        | LH Bt 8                     | Guntur           |
| 11     | 13        | 55131        | NH 22072 Bt                 | CRS, Nanded      |
| 12     | 16        | 55132        | RAHBt 28                    | UAS, Raichur     |
| 13     | 3         | 55133        | LH Bt 6                     | Guntur           |
| 14     | 8         | 55134        | WGCV Bt 138                 | Warangal         |
| 15     | 14        | 55135        | RAHBt 29                    | UAS, Raichur     |
| 16     | 19        | 55136        | Supriya Bt                  | CICR, Coimbatore |
| 17     | 4         | 55137        | NH 22032 Bt                 | CRS, Nanded      |
| 18     | <b>10</b> | <b>55138</b> | <b>CICR 23 Bt (ZC Bt-1)</b> |                  |
| 19     | 17        | 55139        | LH Bt 9                     | Guntur           |
| 20     | 7         | 55140        | RAHBt 30                    | UAS, Raichur     |
| 21     | 5         | 55141        | LH Bt 15                    | Guntur           |

The zonal check variety **PKV 081 Bt (ZC Bt-2)** was not released for the south zone under irrigated conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

The trial was conducted in five locations viz., Warangal, Lam, Raichur, B'Gudi\*, and Coimbatore.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Recommended spacing for the variety has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|---------|------------|--------------|
| 1      | MCU 5-VT Bt                 | 109.1    | 138.7 | 142.3   | 109.3      | <b>124.9</b> |
| 2      | Surabhi Bt                  | 112.7    | 145.7 | 148.7   | 113.8      | <b>130.2</b> |
| 3      | CCH 19-2 Bt                 | 103.0    | 126.3 | 148.7   | 118.5      | <b>124.1</b> |
| 4      | Sunantha Bt                 | 106.1    | 138.5 | 143.3   | 120.6      | <b>127.1</b> |
| 5      | WGCV Bt 139                 | 92.5     | 131.9 | 126.0   | 94.9       | <b>111.3</b> |
| 6      | RAHBt 27                    | 107.6    | 133.3 | 125.0   | 103.1      | <b>117.3</b> |
| 7      | Suraj Super Bt              | 100.4    | 124.3 | 136.7   | 109.0      | <b>117.6</b> |
| 8      | WGCV Bt 134                 | 102.8    | 116.2 | 130.7   | 111.1      | <b>115.2</b> |
| 9      | LH Bt 8                     | 105.6    | 124.9 | 110.3   | 89.3       | <b>107.5</b> |
| 10     | NH 22072 Bt                 | 111.1    | 117.0 | 132.0   | 100.5      | <b>115.2</b> |
| 11     | RAHBt 28                    | 98.0     | 114.7 | 109.0   | 92.3       | <b>103.5</b> |
| 12     | LH Bt 6                     | 111.7    | 94.9  | 105.3   | 97.3       | <b>102.3</b> |
| 13     | WGCV Bt 138                 | 89.3     | 116.6 | 105.3   | 97.8       | <b>102.3</b> |
| 14     | RAHBt 29                    | 103.0    | 131.1 | 123.3   | 101.9      | <b>114.8</b> |
| 15     | Supriya Bt                  | 107.3    | 127.9 | 127.0   | 104.0      | <b>116.6</b> |
| 16     | NH 22032 Bt                 | 106.6    | 104.7 | 114.7   | 95.9       | <b>105.5</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 110.9    | 125.9 | 142.7   | 124.5      | <b>126.0</b> |
| 18     | LH Bt 9                     | 110.5    | 138.3 | 124.0   | 91.4       | <b>116.1</b> |
| 19     | RAHBt 30                    | 118.1    | 132.5 | 118.0   | 109.4      | <b>119.5</b> |
| 20     | LH Bt 15                    | 103.7    | 124.3 | 109.7   | 90.9       | <b>107.2</b> |
|        |                             | 14.0     | 11.4  | 13.6    | 20.2       |              |
|        |                             | 8.0      | 8.3   | 11.2    | 11.8       |              |



**Number of monopodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean |
|--------|-----------------------------|----------|------|---------|------------|------|
| 1      | MCU 5-VT Bt                 | 2.8      | 1.2  | 1.3     | 0.5        | 1.5  |
| 2      | Surabhi Bt                  | 2.6      | 1.3  | 1.4     | 1.2        | 1.6  |
| 3      | CCH 19-2 Bt                 | 2.4      | 1.5  | 1.1     | 0.9        | 1.5  |
| 4      | Sunantha Bt                 | 1.3      | 1.3  | 1.3     | 0.5        | 1.1  |
| 5      | WGCV Bt 139                 | 2.4      | 0.8  | 1.1     | 0.9        | 1.3  |
| 6      | RAHBt 27                    | 0.7      | 0.8  | 1.6     | 0.6        | 0.9  |
| 7      | Suraj Super Bt              | 1.3      | 0.7  | 1.7     | 0.5        | 1.1  |
| 8      | WGCV Bt 134                 | 2.6      | 1.2  | 1.4     | 1.5        | 1.7  |
| 9      | LH Bt 8                     | 1.3      | 0.7  | 1.5     | 0.3        | 1.0  |
| 10     | NH 22072 Bt                 | 0.5      | 1.2  | 1.3     | 0.3        | 0.8  |
| 11     | RAHBt 28                    | 1.5      | 0.8  | 1.9     | 0.6        | 1.2  |
| 12     | LH Bt 6                     | 1.3      | 1.3  | 0.9     | 0.5        | 1.0  |
| 13     | WGCV Bt 138                 | 2.6      | 1.0  | 1.5     | 0.7        | 1.5  |
| 14     | RAHBt 29                    | 0.7      | 0.5  | 1.4     | 0.6        | 0.8  |
| 15     | Supriya Bt                  | 1.2      | 1.2  | 1.1     | 0.1        | 0.9  |
| 16     | NH 22032 Bt                 | 1.6      | 1.2  | 1.0     | 0.5        | 1.1  |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 1.8      | 1.2  | 0.5     | 1.3        | 1.2  |
| 18     | LH Bt 9                     | 1.0      | 0.8  | 1.0     | 0.9        | 0.9  |
| 19     | RAHBt 30                    | 2.5      | 1.4  | 1.3     | 0.9        | 1.5  |
| 20     | LH Bt 15                    | 1.7      | 0.5  | 1.3     | 0.7        | 1.1  |
|        |                             | 1.3      | 12.8 | 0.3     | NS         |      |
|        |                             | 45.5     | 0.1  | 19.0    | 64.2       |      |

**Number of sympodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean |
|--------|-----------------------------|----------|------|---------|------------|------|
| 1      | MCU 5-VT Bt                 | 14.3     | 17.5 | 13.7    | 17.1       | 15.7 |
| 2      | Surabhi Bt                  | 14.9     | 20.5 | 16.0    | 16.8       | 17.1 |
| 3      | CCH 19-2 Bt                 | 13.7     | 19.1 | 16.7    | 15.2       | 16.2 |
| 4      | Sunantha Bt                 | 15.2     | 14.9 | 15.3    | 16.4       | 15.5 |
| 5      | WGCV Bt 139                 | 13.7     | 20.4 | 13.0    | 15.1       | 15.6 |
| 6      | RAHBt 27                    | 15.1     | 20.0 | 14.0    | 15.3       | 16.1 |
| 7      | Suraj Super Bt              | 12.9     | 22.8 | 14.0    | 26.0       | 18.9 |
| 8      | WGCV Bt 134                 | 14.4     | 22.9 | 13.7    | 15.8       | 16.7 |
| 9      | LH Bt 8                     | 14.7     | 24.6 | 13.0    | 13.3       | 16.4 |
| 10     | NH 22072 Bt                 | 14.3     | 20.3 | 16.3    | 16.2       | 16.8 |
| 11     | RAHBt 28                    | 14.4     | 14.1 | 13.3    | 14.3       | 14.0 |
| 12     | LH Bt 6                     | 16.4     | 16.7 | 12.7    | 13.3       | 14.8 |
| 13     | WGCV Bt 138                 | 13.9     | 18.5 | 11.0    | 14.5       | 14.5 |
| 14     | RAHBt 29                    | 12.9     | 23.6 | 12.0    | 14.2       | 15.7 |
| 15     | Supriya Bt                  | 12.5     | 17.0 | 17.7    | 14.2       | 15.4 |
| 16     | NH 22032 Bt                 | 15.3     | 23.0 | 14.7    | 15.5       | 17.1 |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 14.8     | 17.6 | 16.3    | 17.0       | 16.4 |
| 18     | LH Bt 9                     | 13.7     | 23.9 | 17.7    | 14.1       | 17.4 |
| 19     | RAHBt 30                    | 14.5     | 15.4 | 15.0    | 16.9       | 15.5 |
| 20     | LH Bt 15                    | 14.8     | 23.8 | 13.0    | 13.6       | 16.3 |
|        |                             | NS       | 9.7  | 1.6     | NS         |      |
|        |                             | 10.9     | 1.1  | 11.8    | 10.6       |      |



**Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean |
|--------|-----------------------------|----------|------|---------|------------|------|
| 1      | MCU 5-VT Bt                 | 4.2      | 4.8  | 5.9     | 5.3        | 5.1  |
| 2      | Surabhi Bt                  | 3.4      | 4.5  | 5.3     | 4.6        | 4.5  |
| 3      | CCH 19-2 Bt                 | 4.0      | 4.6  | 5.8     | 5.8        | 5.1  |
| 4      | Sunantha Bt                 | 3.8      | 4.4  | 5.2     | 5.6        | 4.8  |
| 5      | WGCV Bt 139                 | 3.9      | 5.3  | 5.6     | 5.4        | 5.1  |
| 6      | RAHBt 27                    | 3.9      | 4.4  | 5.7     | 4.9        | 4.7  |
| 7      | Suraj Super Bt              | 3.9      | 5.6  | 5.5     | 6.0        | 5.3  |
| 8      | WGCV Bt 134                 | 4.1      | 5.1  | 5.6     | 5.5        | 5.1  |
| 9      | LH Bt 8                     | 4.3      | 5.7  | 6.0     | 4.7        | 5.2  |
| 10     | NH 22072 Bt                 | 3.8      | 4.5  | 5.5     | 4.7        | 4.6  |
| 11     | RAHBt 28                    | 4.2      | 4.5  | 5.5     | 5.0        | 4.8  |
| 12     | LH Bt 6                     | 4.5      | 4.7  | 5.9     | 5.7        | 5.2  |
| 13     | WGCV Bt 138                 | 4.1      | 5.1  | 5.9     | 5.4        | 5.1  |
| 14     | RAHBt 29                    | 3.9      | 5.8  | 5.7     | 5.2        | 5.2  |
| 15     | Supriya Bt                  | 4.2      | 4.7  | 6.3     | 5.7        | 5.2  |
| 16     | NH 22032 Bt                 | 4.2      | 5.0  | 5.2     | 5.3        | 4.9  |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 2.9      | 4.3  | 4.9     | 3.8        | 4.0  |
| 18     | LH Bt 9                     | 4.4      | 5.9  | 5.5     | 5.1        | 5.2  |
| 19     | RAHBt 30                    | 4.1      | 4.3  | 5.5     | 4.7        | 4.7  |
| 20     | LH Bt 15                    | 4.3      | 5.2  | 5.7     | 5.7        | 5.2  |
|        |                             | 0.6      | 10.5 | 0.5     | 0.4        |      |
|        |                             | 8.7      | 0.3  | 8.6     | 5.2        |      |





**Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean |
|--------|-----------------------------|----------|------|---------|------------|------|
| 1      | MCU 5-VT Bt                 | 26.2     | 32.2 | 18.0    | 30.5       | 26.7 |
| 2      | Surabhi Bt                  | 26.2     | 33.5 | 21.7    | 33.5       | 28.7 |
| 3      | CCH 19-2 Bt                 | 17.5     | 39.9 | 15.0    | 31.1       | 25.9 |
| 4      | Sunantha Bt                 | 21.0     | 45.0 | 15.0    | 31.5       | 28.1 |
| 5      | WGCV Bt 139                 | 27.3     | 58.0 | 17.3    | 22.9       | 31.4 |
| 6      | RAHBt 27                    | 18.7     | 51.1 | 22.3    | 30.8       | 30.7 |
| 7      | Suraj Super Bt              | 15.3     | 61.7 | 22.7    | 31.0       | 32.7 |
| 8      | WGCV Bt 134                 | 26.7     | 54.7 | 17.7    | 29.9       | 32.3 |
| 9      | LH Bt 8                     | 19.7     | 63.0 | 18.3    | 20.9       | 30.5 |
| 10     | NH 22072 Bt                 | 22.7     | 53.4 | 19.7    | 25.0       | 30.2 |
| 11     | RAHBt 28                    | 18.0     | 42.6 | 22.0    | 28.2       | 27.7 |
| 12     | LH Bt 6                     | 18.3     | 44.0 | 20.7    | 18.8       | 25.5 |
| 13     | WGCV Bt 138                 | 27.8     | 57.0 | 21.0    | 28.9       | 33.7 |
| 14     | RAHBt 29                    | 12.0     | 66.3 | 20.3    | 22.7       | 30.3 |
| 15     | Supriya Bt                  | 12.3     | 28.1 | 17.7    | 30.4       | 22.1 |
| 16     | NH 22032 Bt                 | 21.8     | 53.0 | 21.7    | 24.1       | 30.2 |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 20.2     | 26.8 | 21.3    | 32.0       | 25.1 |
| 18     | LH Bt 9                     | 19.2     | 64.0 | 27.0    | 24.7       | 33.7 |
| 19     | RAHBt 30                    | 26.9     | 50.7 | 21.3    | 33.3       | 33.1 |
| 20     | LH Bt 15                    | 15.3     | 64.3 | 16.0    | 24.6       | 30.1 |
|        |                             | 9.8      | 8.1  | 2.8     | 6.6        |      |
|        |                             | 27.9     | 2.3  | 14.5    | 14.4       |      |

**Number of bolls / sq.m. in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Lam   | Coimbatore | Mean  |
|--------|-----------------------------|-------|------------|-------|
| 1      | MCU 5-VT Bt                 | 66.3  | 75.4       | 70.9  |
| 2      | Surabhi Bt                  | 69.9  | 82.6       | 76.3  |
| 3      | CCH 19-2 Bt                 | 81.6  | 76.9       | 79.3  |
| 4      | Sunantha Bt                 | 92.7  | 77.9       | 85.3  |
| 5      | WGCV Bt 139                 | 110.9 | 56.5       | 83.7  |
| 6      | RAHBt 27                    | 103.7 | 76.0       | 89.9  |
| 7      | Suraj Super Bt              | 127.5 | 76.6       | 102.1 |
| 8      | WGCV Bt 134                 | 113.4 | 73.7       | 93.6  |
| 9      | LH Bt 8                     | 130.1 | 51.7       | 90.9  |
| 10     | NH 22072 Bt                 | 110.5 | 61.7       | 86.1  |
| 11     | RAHBt 28                    | 87.7  | 69.6       | 78.7  |
| 12     | LH Bt 6                     | 90.5  | 46.4       | 68.5  |
| 13     | WGCV Bt 138                 | 117.2 | 71.4       | 94.3  |
| 14     | RAHBt 29                    | 136.9 | 56.0       | 96.5  |
| 15     | Supriya Bt                  | 58.4  | 75.1       | 66.8  |
| 16     | NH 22032 Bt                 | 109.4 | 59.6       | 84.5  |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 55.2  | 79.0       | 67.1  |
| 18     | LH Bt 9                     | 132.4 | 61.1       | 96.8  |
| 19     | RAHBt 30                    | 104.6 | 82.1       | 93.4  |
| 20     | LH Bt 15                    | 132.9 | 60.7       | 96.8  |
|        |                             | 9.3   | 16.3       |       |
|        |                             | 5.5   | 14.4       |       |



**Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean |
|--------|-----------------------------|----------|-----|---------|------------|------|
| 1      | MCU 5-VT Bt                 | 5.0      | 5.3 | 5.7     | 6.6        | 5.7  |
| 2      | Surabhi Bt                  | 4.5      | 5.3 | 4.8     | 5.5        | 5.0  |
| 3      | CCH 19-2 Bt                 | 4.9      | 6.1 | 5.3     | 5.7        | 5.5  |
| 4      | Sunantha Bt                 | 4.8      | 6.2 | 5.4     | 6.8        | 5.8  |
| 5      | WGCV Bt 139                 | 4.2      | 6.1 | 5.3     | 6.0        | 5.4  |
| 6      | RAHBt 27                    | 3.7      | 4.8 | 4.8     | 5.3        | 4.7  |
| 7      | Suraj Super Bt              | 4.9      | 5.4 | 6.4     | 6.9        | 5.9  |
| 8      | WGCV Bt 134                 | 5.0      | 5.2 | 5.4     | 6.2        | 5.5  |
| 9      | LH Bt 8                     | 4.9      | 5.7 | 4.6     | 5.3        | 5.1  |
| 10     | NH 22072 Bt                 | 5.0      | 5.1 | 4.7     | 6.2        | 5.3  |
| 11     | RAHBt 28                    | 4.4      | 4.9 | 4.4     | 5.2        | 4.7  |
| 12     | LH Bt 6                     | 4.6      | 5.8 | 5.2     | 5.9        | 5.4  |
| 13     | WGCV Bt 138                 | 4.5      | 5.8 | 5.0     | 6.1        | 5.4  |
| 14     | RAHBt 29                    | 4.9      | 5.0 | 5.6     | 6.3        | 5.5  |
| 15     | Supriya Bt                  | 5.1      | 5.6 | 6.6     | 6.8        | 6.0  |
| 16     | NH 22032 Bt                 | 5.8      | 5.2 | 5.8     | 7.5        | 6.1  |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.6      | 5.1 | 4.5     | 4.5        | 4.4  |
| 18     | LH Bt 9                     | 5.8      | 6.6 | 6.0     | 7.0        | 6.4  |
| 19     | RAHBt 30                    | 4.7      | 5.1 | 5.0     | 5.9        | 5.2  |
| 20     | LH Bt 15                    | 4.3      | 6.1 | 4.7     | 5.0        | 5.0  |
|        |                             | 0.8      | 9.1 | 0.3     | 0.7        |      |
|        |                             | 10.4     | 0.3 | 6.0     | 7.0        |      |

**Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean |
|--------|-----------------------------|----------|------|---------|------------|------|
| 1      | MCU 5-VT Bt                 | 10.1     | 11.4 | 11.8    | 12.4       | 11.4 |
| 2      | Surabhi Bt                  | 9.2      | 10.3 | 10.3    | 11.5       | 10.3 |
| 3      | CCH 19-2 Bt                 | 10.1     | 11.2 | 11.9    | 12.6       | 11.5 |
| 4      | Sunantha Bt                 | 9.7      | 11.5 | 10.8    | 12.3       | 11.1 |
| 5      | WGCV Bt 139                 | 9.4      | 11.0 | 12.0    | 13.5       | 11.5 |
| 6      | RAHBt 27                    | 9.8      | 9.0  | 10.1    | 11.1       | 10.0 |
| 7      | Suraj Super Bt              | 10.3     | 9.4  | 11.7    | 12.6       | 11.0 |
| 8      | WGCV Bt 134                 | 9.8      | 9.6  | 11.0    | 12.5       | 10.7 |
| 9      | LH Bt 8                     | 10.9     | 10.2 | 11.0    | 11.9       | 11.0 |
| 10     | NH 22072 Bt                 | 9.4      | 9.4  | 9.0     | 10.4       | 9.6  |
| 11     | RAHBt 28                    | 9.8      | 9.4  | 9.9     | 11.3       | 10.1 |
| 12     | LH Bt 6                     | 11.7     | 11.0 | 11.2    | 11.9       | 11.5 |
| 13     | WGCV Bt 138                 | 10.2     | 10.6 | 11.8    | 13.2       | 11.5 |
| 14     | RAHBt 29                    | 9.7      | 9.3  | 9.7     | 10.8       | 9.9  |
| 15     | Supriya Bt                  | 10.6     | 10.8 | 12.3    | 12.4       | 11.5 |
| 16     | NH 22032 Bt                 | 10.0     | 9.6  | 9.1     | 10.9       | 9.9  |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 8.0      | 10.6 | 8.8     | 9.5        | 9.2  |
| 18     | LH Bt 9                     | 10.2     | 11.5 | 10.3    | 11.1       | 10.8 |
| 19     | RAHBt 30                    | 9.1      | 9.3  | 10.3    | 10.9       | 9.9  |
| 20     | LH Bt 15                    | 9.8      | 11.6 | 10.2    | 12.7       | 11.1 |
|        |                             | NS       | 9.9  | 0.4     | 1.0        |      |
|        |                             | 11.4     | 0.6  | 3.4     | 5.3        |      |



**Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | MCU 5-VT Bt                 | 33.0     | 31.9 | 32.8    | 34.5       | <b>33.1</b> |
| 2      | Surabhi Bt                  | 32.7     | 34.5 | 31.8    | 32.3       | <b>32.8</b> |
| 3      | CCH 19-2 Bt                 | 32.7     | 35.5 | 30.7    | 31.2       | <b>32.5</b> |
| 4      | Sunantha Bt                 | 33.0     | 35.4 | 33.4    | 35.4       | <b>34.3</b> |
| 5      | WGCV Bt 139                 | 30.9     | 35.5 | 30.6    | 30.8       | <b>32.0</b> |
| 6      | RAHBt 27                    | 27.3     | 34.8 | 32.2    | 32.3       | <b>31.7</b> |
| 7      | Suraj Super Bt              | 32.3     | 36.5 | 35.3    | 35.4       | <b>34.9</b> |
| 8      | WGCV Bt 134                 | 34.0     | 35.4 | 32.7    | 33.3       | <b>33.9</b> |
| 9      | LH Bt 8                     | 30.8     | 35.7 | 29.6    | 30.8       | <b>31.7</b> |
| 10     | NH 22072 Bt                 | 34.8     | 35.2 | 34.6    | 37.3       | <b>35.5</b> |
| 11     | RAHBt 28                    | 30.8     | 34.3 | 30.6    | 31.5       | <b>31.8</b> |
| 12     | LH Bt 6                     | 28.2     | 34.3 | 31.7    | 33.0       | <b>31.8</b> |
| 13     | WGCV Bt 138                 | 30.8     | 35.2 | 29.9    | 31.7       | <b>31.9</b> |
| 14     | RAHBt 29                    | 33.5     | 35.0 | 36.7    | 36.6       | <b>35.5</b> |
| 15     | Supriya Bt                  | 32.6     | 34.2 | 35.0    | 35.3       | <b>34.3</b> |
| 16     | NH 22032 Bt                 | 36.8     | 35.4 | 39.0    | 40.8       | <b>38.0</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 31.3     | 32.6 | 33.6    | 32.1       | <b>32.4</b> |
| 18     | LH Bt 9                     | 36.4     | 36.3 | 36.8    | 38.5       | <b>37.0</b> |
| 19     | RAHBt 30                    | 33.8     | 35.6 | 32.5    | 35.0       | <b>34.2</b> |
| 20     | LH Bt 15                    | 30.7     | 34.8 | 29.5    | 28.2       | <b>30.8</b> |
|        |                             | 2.9      | 7.3  | 1.0     | 2.4        |             |
|        |                             | 5.5      | 1.5  | 3.1     | 4.4        |             |

**Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | MCU 5-VT Bt                 | 30.1     | 31.9 | 32.6    | 33.1       | <b>31.9</b> |
| 2      | Surabhi Bt                  | 30.1     | 31.9 | 34.4    | 33.0       | <b>32.4</b> |
| 3      | CCH 19-2 Bt                 | 29.3     | 30.9 | 32.6    | 31.2       | <b>31.0</b> |
| 4      | Sunantha Bt                 | 28.4     | 32.5 | 32.3    | 32.0       | <b>31.3</b> |
| 5      | WGCV Bt 139                 | 26.9     | 27.9 | 27.2    | 28.5       | <b>27.6</b> |
| 6      | RAHBt 27                    | 27.9     | 30.6 | 31.2    | 30.3       | <b>30.0</b> |
| 7      | Suraj Super Bt              | 29.6     | 30.7 | 31.5    | 31.0       | <b>30.7</b> |
| 8      | WGCV Bt 134                 | 28.3     | 30.8 | 30.5    | 30.9       | <b>30.1</b> |
| 9      | LH Bt 8                     | 29.8     | 30.9 | 30.8    | 30.5       | <b>30.5</b> |
| 10     | NH 22072 Bt                 | 27.4     | 27.6 | 30.1    | 29.5       | <b>28.7</b> |
| 11     | RAHBt 28                    | 28.4     | 29.7 | 31.0    | 31.1       | <b>30.1</b> |
| 12     | LH Bt 6                     | 29.2     | 30.6 | 31.4    | 30.1       | <b>30.3</b> |
| 13     | WGCV Bt 138                 | 24.9     | 26.7 | 27.8    | 27.6       | <b>26.8</b> |
| 14     | RAHBt 29                    | 28.3     | 30.3 | 31.6    | 30.1       | <b>30.1</b> |
| 15     | Supriya Bt                  | 28.0     | 30.8 | 31.3    | 29.3       | <b>29.9</b> |
| 16     | NH 22032 Bt                 | 26.1     | 26.3 | 27.7    | 27.7       | <b>27.0</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 27.1     | 28.2 | 28.1    | 27.3       | <b>27.7</b> |
| 18     | LH Bt 9                     | 25.9     | 27.2 | 27.1    | 25.7       | <b>26.5</b> |
| 19     | RAHBt 30                    | 29.0     | 30.9 | 32.3    | 30.9       | <b>30.8</b> |
| 20     | LH Bt 15                    | 27.5     | 28.8 | 31.1    | 30.6       | <b>29.5</b> |



**Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | MCU 5-VT Bt                 | 81.0     | 83.0 | 83.0    | 86.0       | <b>83.3</b> |
| 2      | Surabhi Bt                  | 82.0     | 84.0 | 87.0    | 88.1       | <b>85.3</b> |
| 3      | CCH 19-2 Bt                 | 85.0     | 85.0 | 86.0    | 85.4       | <b>85.4</b> |
| 4      | Sunantha Bt                 | 82.0     | 84.0 | 87.0    | 86.8       | <b>85.0</b> |
| 5      | WGCV Bt 139                 | 83.0     | 84.0 | 85.0    | 85.5       | <b>84.4</b> |
| 6      | RAHBt 27                    | 82.0     | 85.0 | 86.0    | 85.8       | <b>84.7</b> |
| 7      | Suraj Super Bt              | 84.0     | 84.0 | 85.0    | 86.4       | <b>84.9</b> |
| 8      | WGCV Bt 134                 | 84.0     | 83.0 | 85.0    | 87.3       | <b>84.8</b> |
| 9      | LH Bt 8                     | 83.0     | 83.0 | 83.0    | 83.8       | <b>83.2</b> |
| 10     | NH 22072 Bt                 | 83.0     | 85.0 | 85.0    | 85.6       | <b>84.7</b> |
| 11     | RAHBt 28                    | 83.0     | 85.0 | 85.0    | 86.4       | <b>84.9</b> |
| 12     | LH Bt 6                     | 81.0     | 83.0 | 85.0    | 85.6       | <b>83.7</b> |
| 13     | WGCV Bt 138                 | 83.0     | 85.0 | 84.0    | 84.5       | <b>84.1</b> |
| 14     | RAHBt 29                    | 83.0     | 85.0 | 86.0    | 85.6       | <b>84.9</b> |
| 15     | Supriya Bt                  | 81.0     | 85.0 | 86.0    | 84.9       | <b>84.2</b> |
| 16     | NH 22032 Bt                 | 81.0     | 82.0 | 82.0    | 83.8       | <b>82.2</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 81.0     | 84.0 | 84.0    | 83.4       | <b>83.1</b> |
| 18     | LH Bt 9                     | 83.0     | 85.0 | 83.0    | 83.1       | <b>83.5</b> |
| 19     | RAHBt 30                    | 82.0     | 86.0 | 85.0    | 85.5       | <b>84.6</b> |
| 20     | LH Bt 15                    | 82.0     | 81.0 | 82.0    | 81.7       | <b>81.7</b> |

**Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|------------|
| 1      | MCU 5-VT Bt                 | 4.0      | 3.8 | 3.7     | 4.3        | <b>4.0</b> |
| 2      | Surabhi Bt                  | 4.2      | 3.9 | 3.9     | 4.2        | <b>4.1</b> |
| 3      | CCH 19-2 Bt                 | 3.6      | 4.2 | 4.0     | 4.5        | <b>4.1</b> |
| 4      | Sunantha Bt                 | 3.8      | 4.5 | 4.3     | 4.7        | <b>4.3</b> |
| 5      | WGCV Bt 139                 | 4.3      | 4.8 | 4.7     | 4.9        | <b>4.7</b> |
| 6      | RAHBt 27                    | 4.2      | 4.2 | 4.2     | 4.5        | <b>4.3</b> |
| 7      | Suraj Super Bt              | 4.2      | 4.6 | 4.6     | 4.7        | <b>4.5</b> |
| 8      | WGCV Bt 134                 | 4.4      | 4.7 | 4.2     | 4.6        | <b>4.5</b> |
| 9      | LH Bt 8                     | 3.8      | 4.0 | 3.7     | 3.8        | <b>3.8</b> |
| 10     | NH 22072 Bt                 | 4.1      | 4.5 | 4.5     | 4.9        | <b>4.5</b> |
| 11     | RAHBt 28                    | 4.0      | 3.9 | 3.3     | 3.8        | <b>3.8</b> |
| 12     | LH Bt 6                     | 3.8      | 4.1 | 4.0     | 4.4        | <b>4.1</b> |
| 13     | WGCV Bt 138                 | 5.0      | 4.8 | 4.9     | 5.1        | <b>5.0</b> |
| 14     | RAHBt 29                    | 5.1      | 5.2 | 5.1     | 5.4        | <b>5.2</b> |
| 15     | Supriya Bt                  | 5.0      | 4.6 | 5.1     | 4.8        | <b>4.9</b> |
| 16     | NH 22032 Bt                 | 4.3      | 4.4 | 4.2     | 4.5        | <b>4.4</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 4.7      | 4.7 | 4.3     | 4.4        | <b>4.5</b> |
| 18     | LH Bt 9                     | 5.1      | 5.7 | 5.3     | 5.9        | <b>5.5</b> |
| 19     | RAHBt 30                    | 4.0      | 4.1 | 4.4     | 4.3        | <b>4.2</b> |
| 20     | LH Bt 15                    | 4.6      | 4.5 | 4.5     | 4.5        | <b>4.5</b> |



**Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | MCU 5-VT Bt                 | 33.1     | 34.7 | 28.6    | 32.8       | <b>32.3</b> |
| 2      | Surabhi Bt                  | 33.7     | 32.2 | 31.2    | 31.4       | <b>32.1</b> |
| 3      | CCH 19-2 Bt                 | 32.0     | 34.0 | 32.1    | 31.1       | <b>32.3</b> |
| 4      | Sunantha Bt                 | 30.9     | 33.4 | 31.1    | 29.8       | <b>31.3</b> |
| 5      | WGCV Bt 139                 | 28.3     | 29.7 | 28.8    | 28.6       | <b>28.9</b> |
| 6      | RAHBt 27                    | 29.7     | 34.3 | 31.7    | 30.5       | <b>31.6</b> |
| 7      | Suraj Super Bt              | 32.1     | 33.3 | 31.4    | 30.8       | <b>31.9</b> |
| 8      | WGCV Bt 134                 | 30.5     | 31.4 | 29.4    | 29.2       | <b>30.1</b> |
| 9      | LH Bt 8                     | 31.1     | 32.5 | 28.7    | 31.1       | <b>30.9</b> |
| 10     | NH 22072 Bt                 | 29.7     | 29.6 | 27.9    | 27.7       | <b>28.7</b> |
| 11     | RAHBt 28                    | 30.5     | 33.3 | 30.3    | 30.8       | <b>31.2</b> |
| 12     | LH Bt 6                     | 32.5     | 33.9 | 29.9    | 30.0       | <b>31.6</b> |
| 13     | WGCV Bt 138                 | 26.0     | 28.8 | 29.5    | 28.0       | <b>28.1</b> |
| 14     | RAHBt 29                    | 30.1     | 33.2 | 32.1    | 28.1       | <b>30.9</b> |
| 15     | Supriya Bt                  | 29.8     | 34.4 | 33.2    | 28.6       | <b>31.5</b> |
| 16     | NH 22032 Bt                 | 28.2     | 28.3 | 27.3    | 26.6       | <b>27.6</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 29.2     | 28.4 | 28.1    | 26.8       | <b>28.1</b> |
| 18     | LH Bt 9                     | 26.9     | 28.8 | 27.6    | 25.6       | <b>27.2</b> |
| 19     | RAHBt 30                    | 30.7     | 34.3 | 31.4    | 30.1       | <b>31.6</b> |
| 20     | LH Bt 15                    | 29.9     | 31.2 | 31.1    | 30.8       | <b>30.8</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------|
| 1      | MCU 5-VT Bt                 | 8.26     | 14.08 | 23.00      | <b>15.11</b> |
| 2      | Surabhi Bt                  | 6.54     | 15.15 | 26.84      | <b>16.18</b> |
| 3      | CCH 19-2 Bt                 | 5.56     | 15.70 | 23.62      | <b>14.96</b> |
| 4      | Sunantha Bt                 | 5.58     | 15.70 | 21.71      | <b>14.33</b> |
| 5      | WGCV Bt 139                 | 7.86     | 17.73 | 13.66      | <b>13.08</b> |
| 6      | RAHBt 27                    | 5.35     | 15.07 | 18.73      | <b>13.05</b> |
| 7      | Suraj Super Bt              | 6.32     | 19.43 | 21.50      | <b>15.75</b> |
| 8      | WGCV Bt 134                 | 5.86     | 18.33 | 12.65      | <b>12.28</b> |
| 9      | LH Bt 8                     | 4.90     | 19.72 | 8.75       | <b>11.12</b> |
| 10     | NH 22072 Bt                 | 7.59     | 16.73 | 17.14      | <b>13.82</b> |
| 11     | RAHBt 28                    | 5.45     | 16.36 | 15.97      | <b>12.59</b> |
| 12     | LH Bt 6                     | 5.96     | 12.10 | 13.41      | <b>10.49</b> |
| 13     | WGCV Bt 138                 | 8.83     | 17.47 | 18.07      | <b>14.79</b> |
| 14     | RAHBt 29                    | 3.99     | 19.10 | 15.59      | <b>12.89</b> |
| 15     | Supriya Bt                  | 1.64     | 17.27 | 21.07      | <b>13.33</b> |
| 16     | NH 22032 Bt                 | 5.52     | 19.23 | 10.82      | <b>11.86</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 1.15     | 11.20 | 5.99       | <b>6.11</b>  |
| 18     | LH Bt 9                     | 6.29     | 22.07 | 15.37      | <b>14.58</b> |
| 19     | RAHBt 30                    | 5.12     | 15.33 | 12.62      | <b>11.02</b> |
| 20     | LH Bt 15                    | 3.35     | 22.09 | 14.93      | <b>13.46</b> |
|        |                             | 2.16     | 12.41 | 3.00       |              |
|        |                             | 22.99    | 1.22  | 11.12      |              |



**Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------|
| 1      | MCU 5-VT Bt                 | 7.08     | 9.70  | 15.49      | <b>10.76</b> |
| 2      | Surabhi Bt                  | 5.95     | 9.43  | 15.80      | <b>10.39</b> |
| 3      | CCH 19-2 Bt                 | 3.73     | 9.67  | 14.79      | <b>9.40</b>  |
| 4      | Sunantha Bt                 | 2.92     | 9.60  | 14.34      | <b>8.95</b>  |
| 5      | WGCV Bt 139                 | 8.14     | 11.91 | 13.25      | <b>11.10</b> |
| 6      | RAHBt 27                    | 4.31     | 11.54 | 13.62      | <b>9.82</b>  |
| 7      | Suraj Super Bt              | 2.31     | 12.67 | 14.79      | <b>9.92</b>  |
| 8      | WGCV Bt 134                 | 9.78     | 11.51 | 10.35      | <b>10.55</b> |
| 9      | LH Bt 8                     | 6.30     | 14.00 | 4.94       | <b>8.41</b>  |
| 10     | NH 22072 Bt                 | 5.12     | 11.61 | 6.30       | <b>7.68</b>  |
| 11     | RAHBt 28                    | 4.00     | 9.17  | 9.09       | <b>7.42</b>  |
| 12     | LH Bt 6                     | 6.30     | 9.13  | 6.54       | <b>7.32</b>  |
| 13     | WGCV Bt 138                 | 7.57     | 11.31 | 11.13      | <b>10.00</b> |
| 14     | RAHBt 29                    | 3.80     | 13.27 | 7.55       | <b>8.21</b>  |
| 15     | Supriya Bt                  | 3.16     | 11.43 | 14.30      | <b>9.63</b>  |
| 16     | NH 22032 Bt                 | 10.96    | 11.42 | 10.99      | <b>11.12</b> |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.07     | 11.00 | 12.26      | <b>8.78</b>  |
| 18     | LH Bt 9                     | 2.70     | 12.23 | 8.83       | <b>7.92</b>  |
| 19     | RAHBt 30                    | 5.87     | 11.62 | 12.59      | <b>10.03</b> |
| 20     | LH Bt 15                    | 4.75     | 11.75 | 10.21      | <b>8.90</b>  |
|        |                             | 2.20     | 12.52 | 2.60       |              |
|        |                             | 24.46    | 0.81  | 13.74      |              |

**Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|----------|-------|---------|------------|--------------|------|-----------------------|
| 1      | MCU 5-VT Bt                 | 15.34    | 23.78 | 21.88   | 38.49      | <b>24.87</b> | 4    | 38.9                  |
| 2      | Surabhi Bt                  | 12.49    | 24.58 | 26.03   | 42.65      | <b>26.44</b> | 2    | 47.6                  |
| 3      | CCH 19-2 Bt                 | 9.29     | 25.37 | 24.32   | 38.42      | <b>24.35</b> | 6    | 36.0                  |
| 4      | Sunantha Bt                 | 8.50     | 25.30 | 26.25   | 36.05      | <b>24.03</b> | 8    | 34.1                  |
| 5      | WGCV Bt 139                 | 16.00    | 29.64 | 23.43   | 26.92      | <b>24.00</b> | 9    | 34.0                  |
| 6      | RAHBt 27                    | 9.66     | 26.61 | 26.44   | 32.35      | <b>23.77</b> | 10   | 32.7                  |
| 7      | Suraj Super Bt              | 8.63     | 32.10 | 31.30   | 36.30      | <b>27.08</b> | 1    | 51.2                  |
| 8      | WGCV Bt 134                 | 15.64    | 29.84 | 26.02   | 23.00      | <b>23.63</b> | 12   | 31.9                  |
| 9      | LH Bt 8                     | 11.20    | 33.72 | 23.10   | 13.69      | <b>20.43</b> | 18   | 14.1                  |
| 10     | NH 22072 Bt                 | 12.72    | 28.34 | 25.26   | 23.44      | <b>22.44</b> | 14   | 25.3                  |
| 11     | RAHBt 28                    | 9.45     | 25.53 | 25.03   | 25.07      | <b>21.27</b> | 16   | 18.8                  |
| 12     | LH Bt 6                     | 12.26    | 21.23 | 25.42   | 19.95      | <b>19.72</b> | 19   | 10.1                  |
| 13     | WGCV Bt 138                 | 16.40    | 28.77 | 24.95   | 29.20      | <b>24.83</b> | 5    | 38.6                  |
| 14     | RAHBt 29                    | 7.79     | 32.37 | 21.73   | 23.14      | <b>21.26</b> | 17   | 18.7                  |
| 15     | Supriya Bt                  | 4.79     | 28.69 | 25.96   | 35.37      | <b>23.70</b> | 11   | 32.3                  |
| 16     | NH 22032 Bt                 | 16.48    | 30.65 | 27.39   | 21.81      | <b>24.08</b> | 7    | 34.5                  |
| 17     | <b>CICR 23 Bt (ZC Bt-1)</b> | 4.22     | 22.20 | 26.96   | 18.25      | <b>17.91</b> | 20   | 0.0                   |
| 18     | LH Bt 9                     | 8.99     | 34.30 | 35.21   | 24.20      | <b>25.68</b> | 3    | 43.4                  |
| 19     | RAHBt 30                    | 10.99    | 26.95 | 22.78   | 25.21      | <b>21.48</b> | 15   | 19.9                  |
| 20     | LH Bt 15                    | 8.10     | 33.84 | 22.70   | 25.14      | <b>22.45</b> | 13   | 25.3                  |
|        |                             | 3.59     | 9.78  | 2.41    | 3.80       |              |      |                       |
|        |                             | 19.52    | 1.60  | 9.70    | 8.27       |              |      |                       |



**Evaluation under Protected Condition for Insect pests**  
**Reaction to Insect Pests**

**Table: Initial Variety trial in South Zone under Protected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.93                              | 2.54 | 3.10 | 4.12 | <b>2.67</b> | <b>BETL</b> |
| Surabhi Bt           | 1.10                              | 2.22 | 3.09 | 3.71 | <b>2.53</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 1.17                              | 2.97 | 2.73 | 3.78 | <b>2.66</b> | <b>BETL</b> |
| Sunantha Bt          | 0.37                              | 2.45 | 2.66 | 4.38 | <b>2.46</b> | <b>BETL</b> |
| WGCV Bt 139          | 1.17                              | 2.20 | 2.45 | 3.93 | <b>2.44</b> | <b>BETL</b> |
| RAHBt 27             | 1.47                              | 2.40 | 2.74 | 3.76 | <b>2.59</b> | <b>BETL</b> |
| Suraj Super Bt       | 0.87                              | 2.75 | 2.93 | 3.40 | <b>2.49</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 1.73                              | 2.18 | 2.38 | 3.53 | <b>2.46</b> | <b>BETL</b> |
| WGCV Bt 134          | 0.73                              | 2.07 | 3.11 | 3.53 | <b>2.36</b> | <b>BETL</b> |
| LH Bt 8              | 1.17                              | 2.26 | 2.81 | 3.44 | <b>2.42</b> | <b>BETL</b> |
| NH 22072 Bt          | 1.07                              | 2.26 | 3.13 | 4.13 | <b>2.65</b> | <b>BETL</b> |
| RAHBt 28             | 1.23                              | 2.03 | 2.84 | 3.53 | <b>2.41</b> | <b>BETL</b> |
| LH Bt 6              | 1.37                              | 2.04 | 2.71 | 3.67 | <b>2.45</b> | <b>BETL</b> |
| WGCV Bt 138          | 1.07                              | 2.11 | 2.04 | 3.07 | <b>2.07</b> | <b>BETL</b> |
| RAHBt 29             | 1.53                              | 1.98 | 3.07 | 3.84 | <b>2.61</b> | <b>BETL</b> |
| Supriya Bt           | 1.10                              | 1.96 | 3.01 | 3.73 | <b>2.45</b> | <b>BETL</b> |
| NH 22032 Bt          | 1.40                              | 1.39 | 3.60 | 4.38 | <b>2.69</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 0.87                              | 2.04 | 2.98 | 3.36 | <b>2.31</b> | <b>BETL</b> |
| LH Bt 9              | 1.23                              | 1.70 | 2.60 | 4.13 | <b>2.42</b> | <b>BETL</b> |
| RAHBt 30             | 0.87                              | 1.56 | 2.48 | 3.33 | <b>2.06</b> | <b>BETL</b> |
| LH Bt 15             | 0.97                              | 1.46 | 3.39 | 3.87 | <b>2.42</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 2.60                                   | 1.17 | 2.21 | 1.87 | <b>1.96</b> | <b>BETL</b> |
| Surabhi Bt           | 2.17                                   | 0.90 | 2.24 | 2.00 | <b>1.83</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 2.00                                   | 1.34 | 1.73 | 2.33 | <b>1.85</b> | <b>BETL</b> |
| Sunantha Bt          | 2.77                                   | 1.04 | 1.77 | 1.93 | <b>1.88</b> | <b>BETL</b> |
| WGCV Bt 139          | 2.67                                   | 2.00 | 2.29 | 1.40 | <b>2.09</b> | <b>BETL</b> |
| RAHBt 27             | 1.90                                   | 2.06 | 1.64 | 1.84 | <b>1.86</b> | <b>BETL</b> |
| Suraj Super Bt       | 2.40                                   | 1.51 | 1.91 | 2.24 | <b>2.02</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 2.17                                   | 1.17 | 2.03 | 1.71 | <b>1.77</b> | <b>BETL</b> |
| WGCV Bt 134          | 2.73                                   | 0.91 | 1.59 | 1.49 | <b>1.68</b> | <b>BETL</b> |
| LH Bt 8              | 2.33                                   | 1.30 | 1.93 | 1.82 | <b>1.84</b> | <b>BETL</b> |
| NH 22072 Bt          | 2.50                                   | 1.50 | 1.69 | 2.22 | <b>1.98</b> | <b>BETL</b> |
| RAHBt 28             | 2.23                                   | 1.30 | 2.16 | 2.09 | <b>1.94</b> | <b>BETL</b> |
| LH Bt 6              | 2.60                                   | 2.41 | 1.56 | 2.04 | <b>2.15</b> | <b>BETL</b> |
| WGCV Bt 138          | 2.60                                   | 1.29 | 2.05 | 2.13 | <b>2.02</b> | <b>BETL</b> |
| RAHBt 29             | 1.83                                   | 1.09 | 1.66 | 1.64 | <b>1.56</b> | <b>BETL</b> |
| Supriya Bt           | 3.23                                   | 2.33 | 1.71 | 1.96 | <b>2.31</b> | <b>BETL</b> |
| NH 22032 Bt          | 3.40                                   | 2.29 | 2.24 | 1.53 | <b>2.37</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 2.73                                   | 2.15 | 1.69 | 1.98 | <b>2.14</b> | <b>BETL</b> |
| LH Bt 9              | 2.77                                   | 1.93 | 1.95 | 1.84 | <b>2.12</b> | <b>BETL</b> |
| RAHBt 30             | 2.97                                   | 2.52 | 2.47 | 2.02 | <b>2.50</b> | <b>BETL</b> |
| LH Bt 15             | 1.83                                   | 1.96 | 2.16 | 1.91 | <b>1.97</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**





**Table: Initial Variety trial in South Zone under Protected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |    |      | Remark |
|----------------------|-----------|----|-----|----|------|--------|
|                      | GU        | RA | CBE | WR | Mean |        |
| MCU 5-VT Bt          | I         | I  | I   | I  | I    |        |
| Surabhi Bt           | I         | I  | I   | I  | I    |        |
| CCH 19-2 Bt          | II        | I  | I   | I  | I    |        |
| Sunantha Bt          | I         | I  | I   | I  | I    |        |
| WGCV Bt 139          | I         | I  | I   | I  | I    |        |
| RAHBt 27             | I         | I  | I   | I  | I    |        |
| Suraj Super Bt       | II        | I  | I   | I  | I    |        |
| PKV 081 Bt (ZC Bt-2) | I         | I  | I   | II | I    |        |
| WGCV Bt 134          | I         | I  | I   | I  | I    |        |
| LH Bt 8              | I         | I  | I   | II | I    |        |
| NH 22072 Bt          | I         | I  | I   | I  | I    |        |
| RAHBt 28             | II        | I  | I   | I  | I    |        |
| LH Bt 6              | I         | I  | I   | I  | I    |        |
| WGCV Bt 138          | I         | I  | I   | I  | I    |        |
| RAHBt 29             | I         | I  | I   | I  | I    |        |
| Supriya Bt           | I         | I  | I   | I  | I    |        |
| NH 22032 Bt          | I         | I  | I   | I  | I    |        |
| CICR 23 Bt (ZC Bt-1) | I         | I  | I   | I  | I    |        |
| LH Bt 9              | I         | I  | I   | I  | I    |        |
| RAHBt 30             | II        | I  | I   | II | II   |        |
| LH Bt 15             | I         | I  | I   | I  | I    |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark      |
|----------------------|------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |             |
| MCU 5-VT Bt          | 4.30                               | 2.67 | 2.39 | 10.33 | <b>4.92</b> | <b>BETL</b> |
| Surabhi Bt           | 3.73                               | 2.72 | 1.50 | 11.69 | <b>4.91</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 3.07                               | 2.45 | 1.22 | 11.71 | <b>4.61</b> | <b>BETL</b> |
| Sunantha Bt          | 4.10                               | 3.53 | 1.39 | 12.24 | <b>5.31</b> | <b>BETL</b> |
| WGCV Bt 139          | 2.97                               | 3.19 | 1.04 | 11.71 | <b>4.73</b> | <b>BETL</b> |
| RAHBt 27             | 3.97                               | 4.07 | 1.15 | 9.36  | <b>4.64</b> | <b>BETL</b> |
| Suraj Super Bt       | 3.20                               | 3.38 | 1.54 | 9.58  | <b>4.42</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 4.27                               | 3.23 | 1.28 | 8.38  | <b>4.29</b> | <b>BETL</b> |
| WGCV Bt 134          | 2.97                               | 2.89 | 1.22 | 6.82  | <b>3.47</b> | <b>BETL</b> |
| LH Bt 8              | 3.60                               | 2.72 | 1.15 | 8.00  | <b>3.87</b> | <b>BETL</b> |
| NH 22072 Bt          | 3.63                               | 2.45 | 1.11 | 9.18  | <b>4.09</b> | <b>BETL</b> |
| RAHBt 28             | 3.73                               | 3.53 | 1.39 | 8.80  | <b>4.36</b> | <b>BETL</b> |
| LH Bt 6              | 4.60                               | 3.19 | 1.37 | 7.89  | <b>4.26</b> | <b>BETL</b> |
| WGCV Bt 138          | 3.27                               | 3.83 | 1.19 | 7.27  | <b>3.89</b> | <b>BETL</b> |
| RAHBt 29             | 3.73                               | 3.38 | 1.48 | 7.76  | <b>4.09</b> | <b>BETL</b> |
| Supriya Bt           | 4.83                               | 3.43 | 1.21 | 10.73 | <b>5.05</b> | <b>BETL</b> |
| NH 22032 Bt          | 4.30                               | 3.95 | 1.36 | 9.04  | <b>4.66</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 4.17                               | 2.76 | 1.04 | 8.89  | <b>4.21</b> | <b>BETL</b> |
| LH Bt 9              | 5.30                               | 3.27 | 1.41 | 7.69  | <b>4.42</b> | <b>BETL</b> |
| RAHBt 30             | 9.07                               | 2.67 | 1.34 | 6.87  | <b>4.99</b> | <b>BETL</b> |
| LH Bt 15             | 4.60                               | 3.53 | 1.28 | 7.22  | <b>4.16</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.07                                 | 0.24 | 0.67 | 0.44 | <b>0.35</b> | <b>BETL</b> |
| Surabhi Bt           | 0.10                                 | 0.18 | 0.76 | 0.68 | <b>0.43</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 0.03                                 | 0.10 | 0.59 | 0.60 | <b>0.33</b> | <b>BETL</b> |
| Sunantha Bt          | 0.00                                 | 0.15 | 0.62 | 0.68 | <b>0.36</b> | <b>BETL</b> |
| WGCV Bt 139          | 0.00                                 | 0.11 | 0.61 | 0.83 | <b>0.39</b> | <b>BETL</b> |
| RAHBt 27             | 0.07                                 | 0.08 | 0.62 | 0.60 | <b>0.34</b> | <b>BETL</b> |
| Suraj Super Bt       | 0.10                                 | 0.15 | 0.54 | 0.69 | <b>0.37</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 0.03                                 | 0.15 | 0.84 | 0.76 | <b>0.44</b> | <b>BETL</b> |
| WGCV Bt 134          | 0.00                                 | 0.12 | 0.77 | 0.76 | <b>0.41</b> | <b>BETL</b> |
| LH Bt 8              | 0.23                                 | 0.18 | 0.56 | 0.54 | <b>0.38</b> | <b>BETL</b> |
| NH 22072 Bt          | 0.00                                 | 0.10 | 0.50 | 0.40 | <b>0.25</b> | <b>BETL</b> |
| RAHBt 28             | 0.07                                 | 0.15 | 0.58 | 0.56 | <b>0.34</b> | <b>BETL</b> |
| LH Bt 6              | 0.03                                 | 0.16 | 0.69 | 0.64 | <b>0.38</b> | <b>BETL</b> |
| WGCV Bt 138          | 0.00                                 | 0.10 | 1.09 | 0.67 | <b>0.46</b> | <b>BETL</b> |
| RAHBt 29             | 0.10                                 | 0.19 | 0.56 | 0.67 | <b>0.38</b> | <b>BETL</b> |
| Supriya Bt           | 0.03                                 | 0.13 | 0.55 | 0.73 | <b>0.36</b> | <b>BETL</b> |
| NH 22032 Bt          | 0.07                                 | 0.03 | 0.51 | 0.67 | <b>0.32</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 0.03                                 | 0.06 | 0.76 | 0.56 | <b>0.35</b> | <b>BETL</b> |
| LH Bt 9              | 0.07                                 | 0.03 | 0.76 | 0.53 | <b>0.35</b> | <b>BETL</b> |
| RAHBt 30             | 0.10                                 | 0.04 | 0.84 | 0.69 | <b>0.42</b> | <b>BETL</b> |
| LH Bt 15             | 0.03                                 | 0.08 | 0.61 | 0.64 | <b>0.34</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No. / plant) |      |      |      |             | Remark |
|----------------------|-------------------------------|------|------|------|-------------|--------|
|                      | GU                            | RA   | CBE  | WR   | Mean        |        |
| MCU 5-VT Bt          | 0.07                          | 1.15 | 0.16 | 0.11 | <b>0.37</b> |        |
| Surabhi Bt           | 0.07                          | 1.26 | 0.16 | 0.11 | <b>0.40</b> |        |
| CCH 19-2 Bt          | 0.00                          | 0.75 | 0.20 | 0.04 | <b>0.25</b> |        |
| Sunantha Bt          | 0.17                          | 0.97 | 0.22 | 0.11 | <b>0.37</b> |        |
| WGCV Bt 139          | 0.13                          | 1.09 | 0.11 | 0.11 | <b>0.36</b> |        |
| RAHBt 27             | 0.07                          | 0.91 | 0.11 | 0.11 | <b>0.30</b> |        |
| Suraj Super Bt       | 0.07                          | 0.93 | 0.18 | 0.04 | <b>0.30</b> |        |
| PKV 081 Bt (ZC Bt-2) | 0.17                          | 1.22 | 0.16 | 0.09 | <b>0.41</b> |        |
| WGCV Bt 134          | 0.10                          | 1.93 | 0.16 | 0.04 | <b>0.56</b> |        |
| LH Bt 8              | 0.10                          | 1.20 | 0.24 | 0.11 | <b>0.41</b> |        |
| NH 22072 Bt          | 0.03                          | 1.08 | 0.09 | 0.18 | <b>0.35</b> |        |
| RAHBt 28             | 0.07                          | 1.15 | 0.16 | 0.09 | <b>0.37</b> |        |
| LH Bt 6              | 0.00                          | 1.31 | 0.04 | 0.13 | <b>0.37</b> |        |
| WGCV Bt 138          | 0.10                          | 1.15 | 0.04 | 0.11 | <b>0.35</b> |        |
| RAHBt 29             | 0.07                          | 0.86 | 0.13 | 0.13 | <b>0.30</b> |        |
| Supriya Bt           | 0.10                          | 1.29 | 0.11 | 0.07 | <b>0.39</b> |        |
| NH 22032 Bt          | 0.10                          | 0.70 | 0.13 | 0.16 | <b>0.27</b> |        |
| CICR 23 Bt (ZC Bt-1) | 0.17                          | 1.53 | 0.20 | 0.20 | <b>0.52</b> |        |
| LH Bt 9              | 0.13                          | 1.82 | 0.20 | 0.11 | <b>0.57</b> |        |
| RAHBt 30             | 0.03                          | 1.49 | 0.11 | 0.20 | <b>0.46</b> |        |
| LH Bt 15             | 0.13                          | 0.93 | 0.18 | 0.09 | <b>0.33</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions– *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                          | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Surabhi Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Sunantha Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| WGCV Bt 139          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHBt 27             | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Suraj Super Bt       | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| WGCV Bt 134          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 8              | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NH 22072 Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHBt 28             | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 6              | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| WGCV Bt 138          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHBt 29             | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Supriya Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NH 22032 Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 9              | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHBt 30             | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 15             | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Initial Variety trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No. /5 plants) |      |      |      |      | Remark |
|----------------------|-----------------------------------|------|------|------|------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean |        |
| MCU 5-VT Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Surabhi Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CCH 19-2 Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Sunantha Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 139          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 27             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Suraj Super Bt       | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 134          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 8              | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 22072 Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 28             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 6              | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 138          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 29             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Supriya Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 22032 Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 9              | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 30             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 15             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |             | Remark      |
|----------------------|------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                       | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.03                                     | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| Surabhi Bt           | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 0.03                                     | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| Sunantha Bt          | 0.10                                     | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| WGCV Bt 139          | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| RAHBt 27             | 0.00                                     | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Suraj Super Bt       | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 0.03                                     | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| WGCV Bt 134          | 0.20                                     | 0.00 | 0.00 | 0.00 | <b>0.05</b> | <b>BETL</b> |
| LH Bt 8              | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| NH 22072 Bt          | 0.03                                     | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| RAHBt 28             | 0.00                                     | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 6              | 0.10                                     | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| WGCV Bt 138          | 0.03                                     | 0.00 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| RAHBt 29             | 0.00                                     | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Supriya Bt           | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| NH 22032 Bt          | 0.10                                     | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 0.00                                     | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 9              | 0.13                                     | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| RAHBt 30             | 0.10                                     | 0.00 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| LH Bt 15             | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Pink bollworm**

| Name of Entry        | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.83                                                    | 0.55 | 0.67 | 1.89 | <b>0.98</b> | <b>BETL</b> |
| Surabhi Bt           | 0.33                                                    | 1.26 | 0.67 | 2.33 | <b>1.15</b> | <b>AETL</b> |
| CCH 19-2 Bt          | 0.83                                                    | 1.15 | 0.33 | 1.78 | <b>1.02</b> | <b>AETL</b> |
| Sunantha Bt          | 0.83                                                    | 1.48 | 0.11 | 2.11 | <b>1.13</b> | <b>AETL</b> |
| WGCV Bt 139          | 1.17                                                    | 1.71 | 1.11 | 2.22 | <b>1.55</b> | <b>AETL</b> |
| RAHBt 27             | 1.00                                                    | 1.26 | 1.11 | 1.89 | <b>1.32</b> | <b>AETL</b> |
| Suraj Super Bt       | 1.33                                                    | 1.26 | 0.56 | 1.78 | <b>1.23</b> | <b>AETL</b> |
| PKV 081 Bt (ZC Bt-2) | 0.83                                                    | 1.49 | 0.11 | 2.22 | <b>1.16</b> | <b>AETL</b> |
| WGCV Bt 134          | 1.00                                                    | 1.93 | 0.44 | 1.89 | <b>1.32</b> | <b>AETL</b> |
| LH Bt 8              | 0.83                                                    | 0.99 | 0.56 | 2.00 | <b>1.10</b> | <b>AETL</b> |
| NH 22072 Bt          | 0.17                                                    | 1.04 | 0.67 | 2.33 | <b>1.05</b> | <b>AETL</b> |
| RAHBt 28             | 0.50                                                    | 0.93 | 0.00 | 1.78 | <b>0.80</b> | <b>BETL</b> |
| LH Bt 6              | 1.17                                                    | 1.30 | 0.11 | 2.11 | <b>1.17</b> | <b>AETL</b> |
| WGCV Bt 138          | 0.83                                                    | 1.71 | 0.11 | 2.00 | <b>1.16</b> | <b>AETL</b> |
| RAHBt 29             | 1.33                                                    | 1.53 | 0.44 | 2.22 | <b>1.38</b> | <b>AETL</b> |
| Supriya Bt           | 0.83                                                    | 1.44 | 0.78 | 1.78 | <b>1.21</b> | <b>AETL</b> |
| NH 22032 Bt          | 0.83                                                    | 0.60 | 0.44 | 2.11 | <b>1.00</b> | <b>AETL</b> |
| CICR 23 Bt (ZC Bt-1) | 0.83                                                    | 1.42 | 0.44 | 2.00 | <b>1.17</b> | <b>AETL</b> |
| LH Bt 9              | 1.17                                                    | 0.86 | 0.44 | 2.11 | <b>1.15</b> | <b>AETL</b> |
| RAHBt 30             | 0.50                                                    | 0.86 | 0.44 | 1.78 | <b>0.90</b> | <b>BETL</b> |
| LH Bt 15             | 0.83                                                    | 0.75 | 0.11 | 1.11 | <b>0.70</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**





**Table: Initial Variety trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| MCU 5-VT Bt          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Surabhi Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 19-2 Bt          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Sunantha Bt          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| WGCV Bt 139          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHBt 27             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraj Super Bt       | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| WGCV Bt 134          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| LH Bt 8              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NH 22072 Bt          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHBt 28             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| LH Bt 6              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| WGCV Bt 138          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHBt 29             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Supriya Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| NH 22032 Bt          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| LH Bt 9              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| RAHBt 30             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| LH Bt 15             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry        | Green Boll Damage (%)/ 10 bolls destructive sampling |      |       |       |              | Remark      |
|----------------------|------------------------------------------------------|------|-------|-------|--------------|-------------|
|                      | GU                                                   | RA   | CBE   | WR    | Mean         |             |
| MCU 5-VT Bt          | 6.67                                                 | 1.15 | 15.00 | 12.22 | <b>8.76</b>  | <b>BETL</b> |
| Surabhi Bt           | 3.33                                                 | 2.65 | 3.33  | 14.44 | <b>5.94</b>  | <b>BETL</b> |
| CCH 19-2 Bt          | 8.33                                                 | 2.96 | 8.33  | 14.44 | <b>8.52</b>  | <b>BETL</b> |
| Sunantha Bt          | 8.33                                                 | 1.05 | 10.00 | 15.56 | <b>8.73</b>  | <b>BETL</b> |
| WGCV Bt 139          | 6.67                                                 | 2.23 | 21.67 | 12.22 | <b>10.70</b> | <b>AETL</b> |
| RAHBt 27             | 6.67                                                 | 3.47 | 6.67  | 10.00 | <b>6.70</b>  | <b>BETL</b> |
| Suraj Super Bt       | 6.67                                                 | 1.52 | 5.00  | 10.00 | <b>5.80</b>  | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 8.33                                                 | 3.02 | 8.33  | 13.33 | <b>8.26</b>  | <b>BETL</b> |
| WGCV Bt 134          | 8.33                                                 | 1.57 | 11.67 | 15.56 | <b>9.28</b>  | <b>BETL</b> |
| LH Bt 8              | 6.67                                                 | 1.28 | 8.33  | 10.00 | <b>6.57</b>  | <b>BETL</b> |
| NH 22072 Bt          | 3.33                                                 | 1.19 | 11.67 | 14.44 | <b>7.66</b>  | <b>BETL</b> |
| RAHBt 28             | 3.33                                                 | 1.90 | 5.00  | 13.33 | <b>5.89</b>  | <b>BETL</b> |
| LH Bt 6              | 6.67                                                 | 1.41 | 3.33  | 12.22 | <b>5.91</b>  | <b>BETL</b> |
| WGCV Bt 138          | 8.33                                                 | 1.51 | 5.00  | 13.33 | <b>7.04</b>  | <b>BETL</b> |
| RAHBt 29             | 8.33                                                 | 1.68 | 11.67 | 12.22 | <b>8.47</b>  | <b>BETL</b> |
| Supriya Bt           | 6.67                                                 | 1.36 | 31.67 | 11.11 | <b>12.70</b> | <b>AETL</b> |
| NH 22032 Bt          | 6.67                                                 | 2.81 | 11.67 | 12.22 | <b>8.34</b>  | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 8.33                                                 | 3.65 | 15.00 | 13.33 | <b>10.08</b> | <b>AETL</b> |
| LH Bt 9              | 6.67                                                 | 3.14 | 13.33 | 13.33 | <b>9.12</b>  | <b>BETL</b> |
| RAHBt 30             | 5.00                                                 | 1.68 | 15.00 | 10.00 | <b>7.92</b>  | <b>BETL</b> |
| LH Bt 15             | 3.33                                                 | 1.62 | 6.67  | 6.67  | <b>4.57</b>  | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |      |       |       |              | Remark |
|----------------------|----------------------|------|-------|-------|--------------|--------|
|                      | GU                   | RA   | CBE   | WR    | Mean         |        |
| MCU 5-VT Bt          | 6.58                 | 4.65 | 13.75 | 13.33 | <b>9.58</b>  |        |
| Surabhi Bt           | 8.31                 | 3.51 | 12.61 | 23.33 | <b>11.94</b> |        |
| CCH 19-2 Bt          | 5.88                 | 4.70 | 14.05 | 23.33 | <b>11.99</b> |        |
| Sunantha Bt          | 5.73                 | 4.67 | 18.50 | 11.67 | <b>10.14</b> |        |
| WGCV Bt 139          | 8.91                 | 4.69 | 15.01 | 16.67 | <b>11.32</b> |        |
| RAHBt 27             | 5.46                 | 4.22 | 15.89 | 13.33 | <b>9.72</b>  |        |
| Suraj Super Bt       | 8.34                 | 3.68 | 11.91 | 28.33 | <b>13.06</b> |        |
| PKV 081 Bt (ZC Bt-2) | 9.37                 | 3.95 | 14.77 | 25.00 | <b>13.27</b> |        |
| WGCV Bt 134          | 7.69                 | 4.23 | 13.57 | 26.67 | <b>13.04</b> |        |
| LH Bt 8              | 8.10                 | 4.69 | 14.37 | 23.33 | <b>12.62</b> |        |
| NH 22072 Bt          | 7.39                 | 4.21 | 10.57 | 21.67 | <b>10.96</b> |        |
| RAHBt 28             | 6.74                 | 3.89 | 13.52 | 28.33 | <b>13.12</b> |        |
| LH Bt 6              | 10.34                | 4.69 | 11.63 | 30.00 | <b>14.17</b> |        |
| WGCV Bt 138          | 9.21                 | 3.79 | 14.41 | 18.33 | <b>11.44</b> |        |
| RAHBt 29             | 6.99                 | 4.37 | 11.95 | 23.33 | <b>11.66</b> |        |
| Supriya Bt           | 7.46                 | 3.59 | 14.29 | 23.33 | <b>12.17</b> |        |
| NH 22032 Bt          | 6.18                 | 4.05 | 11.82 | 16.67 | <b>9.68</b>  |        |
| CICR 23 Bt (ZC Bt-1) | 9.87                 | 4.95 | 14.92 | 23.33 | <b>13.27</b> |        |
| LH Bt 9              | 9.00                 | 4.87 | 11.64 | 25.00 | <b>12.63</b> |        |
| RAHBt 30             | 8.16                 | 3.85 | 13.29 | 21.67 | <b>11.74</b> |        |
| LH Bt 15             | 6.24                 | 4.40 | 13.09 | 26.67 | <b>12.60</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |       |       |             | Remark |
|----------------------|-------------------|------|-------|-------|-------------|--------|
|                      | GU                | RA   | CBE   | WR    | Mean        |        |
| MCU 5-VT Bt          | 2.14              | 3.03 | 8.15  | 5.11  | <b>4.61</b> |        |
| Surabhi Bt           | 3.26              | 1.89 | 7.28  | 6.78  | <b>4.80</b> |        |
| CCH 19-2 Bt          | 2.00              | 3.08 | 6.04  | 5.11  | <b>4.06</b> |        |
| Sunantha Bt          | 1.88              | 3.05 | 13.02 | 7.36  | <b>6.33</b> |        |
| WGCV Bt 139          | 2.75              | 3.07 | 9.90  | 4.98  | <b>5.18</b> |        |
| RAHBt 27             | 2.14              | 2.60 | 12.63 | 5.14  | <b>5.63</b> |        |
| Suraj Super Bt       | 1.93              | 2.06 | 9.19  | 9.91  | <b>5.77</b> |        |
| PKV 081 Bt (ZC Bt-2) | 3.89              | 2.33 | 3.49  | 5.25  | <b>3.74</b> |        |
| WGCV Bt 134          | 2.55              | 2.61 | 7.43  | 7.10  | <b>4.92</b> |        |
| LH Bt 8              | 3.12              | 2.96 | 4.92  | 5.08  | <b>4.02</b> |        |
| NH 22072 Bt          | 2.46              | 2.48 | 4.76  | 7.83  | <b>4.38</b> |        |
| RAHBt 28             | 1.93              | 2.16 | 6.46  | 5.75  | <b>4.07</b> |        |
| LH Bt 6              | 4.68              | 2.96 | 4.90  | 9.49  | <b>5.51</b> |        |
| WGCV Bt 138          | 4.00              | 2.06 | 7.75  | 6.03  | <b>4.96</b> |        |
| RAHBt 29             | 3.17              | 2.64 | 5.83  | 10.23 | <b>5.47</b> |        |
| Supriya Bt           | 3.29              | 1.86 | 6.53  | 5.62  | <b>4.33</b> |        |
| NH 22032 Bt          | 2.18              | 2.73 | 7.90  | 4.27  | <b>4.27</b> |        |
| CICR 23 Bt (ZC Bt-1) | 4.34              | 3.63 | 10.53 | 5.75  | <b>6.06</b> |        |
| LH Bt 9              | 3.72              | 3.55 | 5.14  | 10.59 | <b>5.75</b> |        |
| RAHBt 30             | 2.98              | 2.53 | 7.40  | 8.90  | <b>5.45</b> |        |
| LH Bt 15             | 1.73              | 3.08 | 5.88  | 11.11 | <b>5.45</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect- pests |      |      |      |             | Remark |
|----------------------|------------------------------------|------|------|------|-------------|--------|
|                      | GU                                 | RA   | CBE  | WR   | Mean        |        |
| MCU 5-VT Bt          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Surabhi Bt           | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CCH 19-2 Bt          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Sunantha Bt          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| WGCV Bt 139          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RAHBt 27             | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Suraj Super Bt       | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| PKV 081 Bt (ZC Bt-2) | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| WGCV Bt 134          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| LH Bt 8              | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| NH 22072 Bt          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RAHBt 28             | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| LH Bt 6              | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| WGCV Bt 138          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RAHBt 29             | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Supriya Bt           | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| NH 22032 Bt          | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CICR 23 Bt (ZC Bt-1) | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| LH Bt 9              | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| RAHBt 30             | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| LH Bt 15             | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



## Reaction to Diseases

**Table 7(a): Initial Evaluation Trial of Hirsutum Varieties - Irrigated (IET Variety IRR) under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                               |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                      |    | GM   |    | Rust |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 12     | 55121   | MCU 5-VT Bt          | 29.3                                                      | MR | 9.3  | R  | 28.3 | MR | 5.0                 | R  | 0.0      | DF | 0.0 | DF | 0.2 | R  | 5.8  | R  |
| 18     | 55122   | Surabhi Bt           | 22.3                                                      | R  | 10.0 | R  | 14.8 | R  | 5.5                 | R  | 0.0      | DF | 1.5 | R  | 0.2 | R  | 6.5  | R  |
| 21     | 55123   | CCH 19-2 Bt          | 24.2                                                      | R  | 28.5 | MR | 27.5 | MR | 4.3                 | R  | 0.0      | DF | 0.0 | DF | 0.2 | R  | 6.0  | R  |
| 1      | 55124   | Sunantha Bt          | 26.0                                                      | MR | 12.8 | R  | 8.6  | R  | 4.3                 | R  | 0.0      | DF | 2.7 | R  | 0.0 | DF | 7.5  | R  |
| 15     | 55125   | WGCv Bt 139          | 29.5                                                      | MR | 26.5 | MR | 25.8 | MR | 3.2                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 7.7  | R  |
| 6      | 55126   | RAHBt 27             | 25.8                                                      | MR | 14.3 | R  | 10.3 | R  | 5.0                 | R  | 0.0      | DF | 2.3 | R  | 0.1 | R  | 7.2  | R  |
| 9      | 55127   | Suraj Super Bt       | 28.2                                                      | MR | 27.0 | MR | 28.0 | MR | 5.2                 | R  | 0.0      | DF | 0.7 | R  | 0.2 | R  | 6.7  | R  |
| 2      | 55128   | PKV 081 Bt (ZC Bt-2) | 26.8                                                      | MR | 12.2 | R  | 13.4 | R  | 4.0                 | R  | 0.0      | DF | 1.8 | R  | 0.0 | DF | 7.5  | R  |
| 20     | 55129   | WGCv Bt 134          | 6.3                                                       | R  | 29.8 | MR | 14.8 | R  | 3.7                 | R  | 0.0      | DF | 0.7 | R  | 0.1 | R  | 7.0  | R  |
| 11     | 55130   | LH Bt 8              | 20.8                                                      | MR | 11.7 | R  | 18.0 | R  | 4.8                 | R  | 0.0      | DF | 0.7 | R  | 0.0 | DF | 6.3  | R  |
| 13     | 55131   | NH 22072 Bt          | 28.8                                                      | MR | 28.5 | MR | 16.0 | R  | 4.7                 | R  | 0.0      | DF | 1.8 | R  | 0.6 | R  | 6.7  | R  |
| 16     | 55132   | RAHBt 28             | 26.1                                                      | MR | 10.8 | R  | 26.3 | MR | 5.2                 | R  | 0.0      | DF | 1.3 | R  | 0.1 | R  | 7.8  | R  |
| 3      | 55133   | LH Bt 6              | 27.3                                                      | MR | 26.8 | MR | 28.0 | MR | 5.3                 | R  | 0.0      | DF | 0.0 | DF | 0.5 | R  | 5.5  | R  |
| 8      | 55134   | WGCv Bt 138          | 26.0                                                      | MR | 28.0 | MR | 27.5 | MR | 4.2                 | R  | 0.0      | DF | 1.3 | R  | 0.0 | DF | 8.8  | R  |
| 14     | 55135   | RAHBt 29             | 26.5                                                      | MR | 25.8 | MR | 28.3 | MR | 3.7                 | R  | 0.0      | DF | 0.8 | R  | 0.0 | DF | 5.7  | R  |
| 19     | 55136   | Supriya Bt           | 26.5                                                      | MR | 28.3 | MR | 26.0 | MR | 4.7                 | R  | 0.0      | DF | 1.2 | R  | 1.0 | R  | 5.5  | R  |
| 4      | 55137   | NH 22032 Bt          | 27.0                                                      | MR | 27.5 | MR | 17.3 | R  | 4.0                 | R  | 0.0      | DF | 1.2 | R  | 0.0 | DF | 4.5  | R  |
| 10     | 55138   | CICR 23 Bt (ZC Bt-1) | 26.2                                                      | MR | 30.2 | MR | 27.3 | MR | 4.7                 | R  | 0.0      | DF | 2.8 | R  | 0.0 | DF | 6.7  | R  |
| 17     | 55139   | LH Bt 9              | 21.3                                                      | R  | 25.8 | MR | 14.5 | R  | 6.7                 | R  | 0.0      | DF | 0.7 | R  | 0.0 | DF | 6.8  | R  |
| 7      | 55140   | RAHBt 30             | 24.2                                                      | R  | 27.5 | MR | 16.5 | R  | 3.2                 | R  | 0.0      | DF | 1.8 | R  | 0.0 | DF | 7.0  | R  |
| 5      | 55141   | LH Bt 15             | 29.5                                                      | MR | 28.6 | MR | 27.3 | MR | 6.0                 | R  | 0.0      | DF | 1.3 | R  | 0.6 | R  | 7.5  | R  |

Table 7(b) Initial Evaluation Trial of Hirsutum Varieties - Irrigated (IET Variety IRR) under protected conditions and Protected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |   |      |    |      |    |      |    |     |    |
|--------|---------|----------------------|-----------------------------------------------------------|---|------|----|------|----|------|----|-----|----|
|        |         |                      | RARS, Warangal                                            |   |      |    |      |    |      |    |     |    |
|        |         |                      | ALS                                                       |   | CoLS |    | GM   |    | Rust |    | TSV |    |
|        |         |                      | PDI                                                       |   | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 12     | 55121   | MCU 5-VT Bt          | 2.7                                                       | R | 3.8  | R  | 12.7 | R  | 26.5 | MR | 1.9 | R  |
| 18     | 55122   | Surabhi Bt           | 4.7                                                       | R | 5.7  | R  | 12.7 | R  | 27.5 | MR | 2.2 | R  |
| 21     | 55123   | CCH 19-2 Bt          | 5.0                                                       | R | 6.5  | R  | 11.8 | R  | 27.7 | MR | 3.3 | R  |
| 1      | 55124   | Sunantha Bt          | 4.3                                                       | R | 5.5  | R  | 12.0 | R  | 28.2 | MR | 1.5 | R  |
| 15     | 55125   | WGCV Bt 139          | 1.8                                                       | R | 2.3  | R  | 8.3  | R  | 17.2 | R  | 0.6 | R  |
| 6      | 55126   | RAHBt 27             | 2.8                                                       | R | 4.3  | R  | 12.5 | R  | 26.3 | MR | 2.1 | R  |
| 9      | 55127   | Suraj Super Bt       | 4.0                                                       | R | 6.5  | R  | 12.7 | R  | 28.5 | MR | 0.6 | R  |
| 2      | 55128   | PKV 081 Bt (ZC Bt-2) | 4.2                                                       | R | 4.7  | R  | 14.0 | R  | 27.8 | MR | 3.8 | R  |
| 20     | 55129   | WGCV Bt 134          | 1.2                                                       | R | 1.8  | R  | 7.0  | R  | 15.5 | R  | 0.0 | DF |
| 11     | 55130   | LH Bt 8              | 2.3                                                       | R | 3.3  | R  | 13.2 | R  | 28.3 | MR | 0.4 | R  |
| 13     | 55131   | NH 22072 Bt          | 2.7                                                       | R | 5.0  | R  | 13.2 | R  | 28.5 | MR | 0.7 | R  |
| 16     | 55132   | RAHBt 28             | 3.5                                                       | R | 4.7  | R  | 12.5 | R  | 27.8 | MR | 1.3 | R  |
| 3      | 55133   | LH Bt 6              | 3.3                                                       | R | 4.2  | R  | 12.7 | R  | 27.2 | MR | 1.5 | R  |
| 8      | 55134   | WGCV Bt 138          | 2.5                                                       | R | 2.7  | R  | 7.0  | R  | 16.5 | R  | 0.0 | DF |
| 14     | 55135   | RAHBt 29             | 2.8                                                       | R | 4.2  | R  | 13.7 | R  | 27.5 | MR | 0.9 | R  |
| 19     | 55136   | Supriya Bt           | 2.0                                                       | R | 4.2  | R  | 13.2 | R  | 28.2 | MR | 2.3 | R  |
| 4      | 55137   | NH 22032 Bt          | 2.5                                                       | R | 2.7  | R  | 5.7  | R  | 14.2 | R  | 2.7 | R  |
| 10     | 55138   | CICR 23 Bt (ZC Bt-1) | 3.5                                                       | R | 5.7  | R  | 13.8 | R  | 26.7 | MR | 2.4 | R  |
| 17     | 55139   | LH Bt 9              | 3.7                                                       | R | 4.7  | R  | 13.0 | R  | 27.2 | MR | 1.1 | R  |
| 7      | 55140   | RAHBt 30             | 3.0                                                       | R | 4.0  | R  | 13.2 | R  | 28.8 | MR | 2.0 | R  |
| 5      | 55141   | LH Bt 15             | 2.8                                                       | R | 2.5  | R  | 12.0 | R  | 26.7 | MR | 1.7 | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pests

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |       |       |             | Remark      |
|----------------------|-----------------------------------|------|-------|-------|-------------|-------------|
|                      | GU                                | RA   | CBE   | WR    | Mean        |             |
| MCU 5-VT Bt          | 4.67                              | 5.21 | 8.00  | 9.13  | <b>6.75</b> | <b>BETL</b> |
| Surabhi Bt           | 6.03                              | 4.89 | 7.93  | 9.73  | <b>7.15</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 5.13                              | 5.64 | 10.07 | 8.13  | <b>7.24</b> | <b>BETL</b> |
| Sunantha Bt          | 4.83                              | 5.12 | 9.33  | 8.87  | <b>7.04</b> | <b>BETL</b> |
| WGCV Bt 139          | 5.53                              | 4.87 | 9.00  | 7.27  | <b>6.67</b> | <b>BETL</b> |
| RAHBt 27             | 7.00                              | 5.07 | 9.44  | 7.20  | <b>7.18</b> | <b>BETL</b> |
| Suraj Super Bt       | 6.63                              | 5.42 | 10.60 | 10.13 | <b>8.20</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 5.10                              | 4.85 | 6.78  | 8.20  | <b>6.23</b> | <b>BETL</b> |
| WGCV Bt 134          | 5.00                              | 4.74 | 8.69  | 7.40  | <b>6.46</b> | <b>BETL</b> |
| LH Bt 8              | 8.60                              | 4.93 | 5.89  | 7.87  | <b>6.82</b> | <b>BETL</b> |
| NH 22072 Bt          | 5.57                              | 4.93 | 8.73  | 9.60  | <b>7.21</b> | <b>BETL</b> |
| RAHBt 28             | 5.33                              | 4.70 | 8.16  | 7.93  | <b>6.53</b> | <b>BETL</b> |
| LH Bt 6              | 6.10                              | 4.71 | 6.84  | 8.13  | <b>6.45</b> | <b>BETL</b> |
| WGCV Bt 138          | 5.10                              | 4.78 | 7.60  | 7.13  | <b>6.15</b> | <b>BETL</b> |
| RAHBt 29             | 6.37                              | 4.65 | 6.42  | 7.27  | <b>6.18</b> | <b>BETL</b> |
| Supriya Bt           | 4.63                              | 4.63 | 6.31  | 6.67  | <b>5.56</b> | <b>BETL</b> |
| NH 22032 Bt          | 7.83                              | 4.06 | 10.02 | 6.80  | <b>7.18</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 5.93                              | 4.71 | 7.89  | 6.87  | <b>6.35</b> | <b>BETL</b> |
| LH Bt 9              | 6.23                              | 4.37 | 5.73  | 7.40  | <b>5.93</b> | <b>BETL</b> |
| RAHBt 30             | 5.20                              | 4.23 | 5.96  | 8.07  | <b>5.86</b> | <b>BETL</b> |
| LH Bt 15             | 7.37                              | 4.13 | 7.38  | 7.87  | <b>6.69</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**





**Table: Initial Variety trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 9.20                                   | 2.41 | 4.40 | 3.67 | <b>4.92</b> | <b>BETL</b> |
| Surabhi Bt           | 9.57                                   | 2.14 | 4.13 | 3.87 | <b>4.93</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 11.27                                  | 2.59 | 4.13 | 4.60 | <b>5.65</b> | <b>BETL</b> |
| Sunantha Bt          | 10.39                                  | 2.29 | 3.20 | 3.93 | <b>4.95</b> | <b>BETL</b> |
| WGCV Bt 139          | 9.23                                   | 3.25 | 2.27 | 3.67 | <b>4.60</b> | <b>BETL</b> |
| RAHBt 27             | 8.73                                   | 3.31 | 4.27 | 3.67 | <b>4.99</b> | <b>BETL</b> |
| Suraj Super Bt       | 10.87                                  | 2.76 | 3.20 | 4.13 | <b>5.24</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 9.33                                   | 2.41 | 4.17 | 3.33 | <b>4.81</b> | <b>BETL</b> |
| WGCV Bt 134          | 8.43                                   | 2.15 | 3.33 | 4.73 | <b>4.66</b> | <b>BETL</b> |
| LH Bt 8              | 9.97                                   | 2.54 | 2.93 | 3.93 | <b>4.84</b> | <b>BETL</b> |
| NH 22072 Bt          | 9.23                                   | 2.74 | 2.73 | 3.80 | <b>4.63</b> | <b>BETL</b> |
| RAHBt 28             | 11.03                                  | 2.54 | 3.13 | 4.60 | <b>5.33</b> | <b>BETL</b> |
| LH Bt 6              | 9.57                                   | 3.65 | 2.67 | 3.00 | <b>4.72</b> | <b>BETL</b> |
| WGCV Bt 138          | 9.47                                   | 2.54 | 3.33 | 3.67 | <b>4.75</b> | <b>BETL</b> |
| RAHBt 29             | 9.33                                   | 2.33 | 4.33 | 4.07 | <b>5.02</b> | <b>BETL</b> |
| Supriya Bt           | 8.60                                   | 3.57 | 2.80 | 3.60 | <b>4.64</b> | <b>BETL</b> |
| NH 22032 Bt          | 7.77                                   | 3.54 | 3.40 | 3.00 | <b>4.43</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 9.50                                   | 3.40 | 3.93 | 3.40 | <b>5.06</b> | <b>BETL</b> |
| LH Bt 9              | 7.93                                   | 3.17 | 2.93 | 3.13 | <b>4.29</b> | <b>BETL</b> |
| RAHBt 30             | 9.10                                   | 3.76 | 3.60 | 3.87 | <b>5.08</b> | <b>BETL</b> |
| LH Bt 15             | 8.37                                   | 3.20 | 2.67 | 4.27 | <b>4.63</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry        | JIG/plant |    |     |     |      | Remark |
|----------------------|-----------|----|-----|-----|------|--------|
|                      | GU        | RA | CBE | WR  | Mean |        |
| MCU 5-VT Bt          | III       | I  | I   | II  | II   |        |
| Surabhi Bt           | III       | I  | I   | II  | II   |        |
| CCH 19-2 Bt          | IV        | I  | I   | II  | II   |        |
| Sunantha Bt          | III       | I  | I   | II  | II   |        |
| WGCV Bt 139          | III       | I  | I   | II  | II   |        |
| RAHBt 27             | III       | I  | I   | III | II   |        |
| Suraj Super Bt       | IV        | I  | II  | II  | II   |        |
| PKV 081 Bt (ZC Bt-2) | III       | I  | I   | III | II   |        |
| WGCV Bt 134          | II        | I  | I   | II  | II   |        |
| LH Bt 8              | III       | I  | I   | II  | II   |        |
| NH 22072 Bt          | III       | I  | I   | III | II   |        |
| RAHBt 28             | IV        | I  | I   | II  | II   |        |
| LH Bt 6              | IV        | I  | I   | II  | II   |        |
| WGCV Bt 138          | III       | I  | I   | II  | II   |        |
| RAHBt 29             | II        | I  | I   | II  | II   |        |
| Supriya Bt           | III       | II | I   | II  | II   |        |
| NH 22032 Bt          | II        | I  | I   | II  | II   |        |
| CICR 23 Bt (ZC Bt-1) | III       | I  | I   | II  | II   |        |
| LH Bt 9              | III       | I  | I   | III | II   |        |
| RAHBt 30             | III       | I  | I   | II  | II   |        |
| LH Bt 15             | II        | I  | I   | II  | II   |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark      |
|----------------------|------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |             |
| MCU 5-VT Bt          | 8.63                               | 6.36 | 2.69 | 13.27 | <b>7.74</b> | <b>BETL</b> |
| Surabhi Bt           | 7.53                               | 6.40 | 2.04 | 14.53 | <b>7.63</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 6.61                               | 6.14 | 2.04 | 14.13 | <b>7.23</b> | <b>BETL</b> |
| Sunantha Bt          | 7.70                               | 7.21 | 3.10 | 11.60 | <b>7.40</b> | <b>BETL</b> |
| WGCV Bt 139          | 8.03                               | 6.87 | 2.24 | 13.67 | <b>7.70</b> | <b>BETL</b> |
| RAHBt 27             | 9.10                               | 7.76 | 2.64 | 10.87 | <b>7.59</b> | <b>BETL</b> |
| Suraj Super Bt       | 8.80                               | 7.06 | 2.09 | 13.07 | <b>7.75</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 7.07                               | 6.92 | 2.27 | 12.53 | <b>7.20</b> | <b>BETL</b> |
| WGCV Bt 134          | 8.80                               | 6.57 | 2.62 | 12.27 | <b>7.57</b> | <b>BETL</b> |
| LH Bt 8              | 9.73                               | 6.40 | 2.29 | 13.40 | <b>7.96</b> | <b>BETL</b> |
| NH 22072 Bt          | 8.33                               | 6.14 | 2.49 | 12.27 | <b>7.31</b> | <b>BETL</b> |
| RAHBt 28             | 8.57                               | 7.21 | 2.02 | 11.53 | <b>7.33</b> | <b>BETL</b> |
| LH Bt 6              | 9.00                               | 6.87 | 2.12 | 9.80  | <b>6.95</b> | <b>BETL</b> |
| WGCV Bt 138          | 8.40                               | 7.51 | 1.68 | 11.13 | <b>7.18</b> | <b>BETL</b> |
| RAHBt 29             | 7.67                               | 7.06 | 2.38 | 13.80 | <b>7.73</b> | <b>BETL</b> |
| Supriya Bt           | 9.67                               | 7.11 | 2.08 | 14.67 | <b>8.38</b> | <b>BETL</b> |
| NH 22032 Bt          | 8.13                               | 7.64 | 3.09 | 13.87 | <b>8.18</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 6.90                               | 6.45 | 2.49 | 13.47 | <b>7.33</b> | <b>BETL</b> |
| LH Bt 9              | 8.60                               | 6.95 | 2.38 | 12.67 | <b>7.65</b> | <b>BETL</b> |
| RAHBt 30             | 7.97                               | 6.36 | 1.91 | 12.27 | <b>7.13</b> | <b>BETL</b> |
| LH Bt 15             | 6.53                               | 7.21 | 2.36 | 14.87 | <b>7.74</b> | <b>BETL</b> |

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**Table: Initial Variety trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.93                                 | 1.21 | 0.89 | 0.53 | <b>0.89</b> | <b>BETL</b> |
| Surabhi Bt           | 1.43                                 | 1.48 | 1.49 | 0.80 | <b>1.30</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 0.93                                 | 1.09 | 1.76 | 1.00 | <b>1.20</b> | <b>BETL</b> |
| Sunantha Bt          | 0.87                                 | 1.01 | 1.38 | 0.53 | <b>0.95</b> | <b>BETL</b> |
| WGCV Bt 139          | 0.60                                 | 1.14 | 1.67 | 0.73 | <b>1.03</b> | <b>BETL</b> |
| RAHBt 27             | 0.83                                 | 1.05 | 2.29 | 0.67 | <b>1.21</b> | <b>BETL</b> |
| Suraj Super Bt       | 0.67                                 | 0.78 | 1.82 | 0.80 | <b>1.02</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 1.17                                 | 1.19 | 1.27 | 0.60 | <b>1.06</b> | <b>BETL</b> |
| WGCV Bt 134          | 1.03                                 | 1.09 | 0.91 | 0.87 | <b>0.97</b> | <b>BETL</b> |
| LH Bt 8              | 0.60                                 | 1.09 | 1.69 | 0.80 | <b>1.04</b> | <b>BETL</b> |
| NH 22072 Bt          | 1.03                                 | 1.09 | 1.27 | 0.60 | <b>1.00</b> | <b>BETL</b> |
| RAHBt 28             | 0.70                                 | 0.89 | 1.16 | 0.67 | <b>0.85</b> | <b>BETL</b> |
| LH Bt 6              | 0.80                                 | 1.18 | 1.49 | 0.67 | <b>1.03</b> | <b>BETL</b> |
| WGCV Bt 138          | 0.53                                 | 1.41 | 1.16 | 0.33 | <b>0.86</b> | <b>BETL</b> |
| RAHBt 29             | 1.43                                 | 1.18 | 0.64 | 1.07 | <b>1.08</b> | <b>BETL</b> |
| Supriya Bt           | 0.73                                 | 1.78 | 1.36 | 0.67 | <b>1.13</b> | <b>BETL</b> |
| NH 22032 Bt          | 1.30                                 | 1.48 | 1.96 | 0.67 | <b>1.35</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 1.40                                 | 1.10 | 2.02 | 0.60 | <b>1.28</b> | <b>BETL</b> |
| LH Bt 9              | 0.93                                 | 0.76 | 0.82 | 0.80 | <b>0.83</b> | <b>BETL</b> |
| RAHBt 30             | 1.23                                 | 0.68 | 1.24 | 0.33 | <b>0.87</b> | <b>BETL</b> |
| LH Bt 15             | 1.00                                 | 1.05 | 1.18 | 0.60 | <b>0.96</b> | <b>BETL</b> |

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**Table: Initial Variety trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./ plant) |      |      |      |             | Remark |
|----------------------|------------------------------|------|------|------|-------------|--------|
|                      | GU                           | RA   | CBE  | WR   | Mean        |        |
| MCU 5-VT Bt          | 0.13                         | 1.45 | 0.27 | 0.09 | <b>0.48</b> |        |
| Surabhi Bt           | 0.27                         | 1.56 | 0.20 | 0.04 | <b>0.52</b> |        |
| CCH 19-2 Bt          | 0.00                         | 1.04 | 0.33 | 0.11 | <b>0.37</b> |        |
| Sunantha Bt          | 0.20                         | 1.27 | 0.27 | 0.16 | <b>0.47</b> |        |
| WGCV Bt 139          | 0.00                         | 1.33 | 0.20 | 0.11 | <b>0.41</b> |        |
| RAHBt 27             | 0.10                         | 1.15 | 0.07 | 0.00 | <b>0.33</b> |        |
| Suraj Super Bt       | 0.13                         | 1.22 | 0.47 | 0.11 | <b>0.48</b> |        |
| PKV 081 Bt (ZC Bt-2) | 0.20                         | 1.51 | 0.13 | 0.16 | <b>0.50</b> |        |
| WGCV Bt 134          | 0.17                         | 2.23 | 0.07 | 0.04 | <b>0.63</b> |        |
| LH Bt 8              | 0.07                         | 1.49 | 0.13 | 0.13 | <b>0.46</b> |        |
| NH 22072 Bt          | 0.03                         | 1.38 | 0.00 | 0.16 | <b>0.39</b> |        |
| RAHBt 28             | 0.17                         | 1.44 | 0.07 | 0.04 | <b>0.43</b> |        |
| LH Bt 6              | 0.10                         | 1.60 | 0.07 | 0.22 | <b>0.50</b> |        |
| WGCV Bt 138          | 0.20                         | 1.44 | 0.27 | 0.13 | <b>0.51</b> |        |
| RAHBt 29             | 0.10                         | 1.11 | 0.13 | 0.16 | <b>0.37</b> |        |
| Supriya Bt           | 0.20                         | 1.58 | 0.20 | 0.09 | <b>0.52</b> |        |
| NH 22032 Bt          | 0.17                         | 1.00 | 0.00 | 0.11 | <b>0.32</b> |        |
| CICR 23 Bt (ZC Bt-1) | 0.03                         | 1.82 | 0.07 | 0.18 | <b>0.53</b> |        |
| LH Bt 9              | 0.23                         | 2.11 | 0.00 | 0.16 | <b>0.63</b> |        |
| RAHBt 30             | 0.10                         | 1.78 | 0.27 | 0.18 | <b>0.58</b> |        |
| LH Bt 15             | 0.27                         | 1.22 | 0.00 | 0.09 | <b>0.39</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety trial in South Zone under Protected Conditions– *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |      | Remark |
|----------------------|---------------------------------------------|------|------|------|------|--------|
|                      | GU                                          | RA   | CBE  | WR   | Mean |        |
| MCU 5-VT Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Surabhi Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CCH 19-2 Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Sunantha Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 139          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 27             | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Suraj Super Bt       | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 134          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 8              | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 22072 Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 28             | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 6              | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 138          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 29             | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Supriya Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 22032 Bt          | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 9              | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 30             | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 15             | 0.00                                        | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No. /5 plants) |      |      |      |      | Remark |
|----------------------|-----------------------------------|------|------|------|------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean |        |
| MCU 5-VT Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Surabhi Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CCH 19-2 Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Sunantha Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 139          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 27             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Suraj Super Bt       | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 134          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 8              | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 22072 Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 28             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 6              | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt 138          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 29             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Supriya Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 22032 Bt          | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 9              | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| RAHBt 30             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 15             | 0.00                              | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

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**Table: Initial Variety trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |             | Remark      |
|----------------------|------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                       | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.43                                     | 0.17 | 0.00 | 0.00 | <b>0.15</b> | <b>BETL</b> |
| Surabhi Bt           | 0.70                                     | 0.06 | 0.00 | 0.00 | <b>0.19</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 0.50                                     | 0.17 | 0.00 | 0.00 | <b>0.17</b> | <b>BETL</b> |
| Sunantha Bt          | 0.00                                     | 0.39 | 0.00 | 0.00 | <b>0.10</b> | <b>BETL</b> |
| WGCV Bt 139          | 0.73                                     | 0.39 | 0.00 | 0.00 | <b>0.28</b> | <b>BETL</b> |
| RAHBt 27             | 0.40                                     | 0.62 | 0.00 | 0.00 | <b>0.25</b> | <b>BETL</b> |
| Suraj Super Bt       | 0.63                                     | 0.84 | 0.00 | 0.00 | <b>0.37</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 0.00                                     | 0.39 | 0.00 | 0.00 | <b>0.10</b> | <b>BETL</b> |
| WGCV Bt 134          | 0.73                                     | 0.62 | 0.00 | 0.00 | <b>0.34</b> | <b>BETL</b> |
| LH Bt 8              | 0.60                                     | 0.17 | 0.00 | 0.00 | <b>0.19</b> | <b>BETL</b> |
| NH 22072 Bt          | 0.70                                     | 0.62 | 0.00 | 0.00 | <b>0.33</b> | <b>BETL</b> |
| RAHBt 28             | 0.00                                     | 0.39 | 0.00 | 0.00 | <b>0.10</b> | <b>BETL</b> |
| LH Bt 6              | 0.00                                     | 0.17 | 0.00 | 0.00 | <b>0.04</b> | <b>BETL</b> |
| WGCV Bt 138          | 0.50                                     | 0.62 | 0.00 | 0.00 | <b>0.28</b> | <b>BETL</b> |
| RAHBt 29             | 0.47                                     | 0.17 | 0.00 | 0.00 | <b>0.16</b> | <b>BETL</b> |
| Supriya Bt           | 0.70                                     | 0.47 | 0.00 | 0.00 | <b>0.29</b> | <b>BETL</b> |
| NH 22032 Bt          | 0.50                                     | 0.62 | 0.00 | 0.00 | <b>0.28</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 0.00                                     | 0.28 | 0.00 | 0.00 | <b>0.07</b> | <b>BETL</b> |
| LH Bt 9              | 0.67                                     | 0.06 | 0.00 | 0.00 | <b>0.18</b> | <b>BETL</b> |
| RAHBt 30             | 0.47                                     | 0.28 | 0.00 | 0.00 | <b>0.19</b> | <b>BETL</b> |
| LH Bt 15             | 0.53                                     | 0.28 | 0.00 | 0.00 | <b>0.20</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





**Table: Initial Variety trial in South Zone under Unprotected Conditions – Pink bollworm**

| Name of Entry        | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |       |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR    | Mean        |             |
| MCU 5-VT Bt          | 5.17                                                    | 1.31 | 0.00 | 9.67  | <b>4.04</b> | <b>AETL</b> |
| Surabhi Bt           | 3.67                                                    | 1.87 | 1.00 | 6.33  | <b>3.22</b> | <b>AETL</b> |
| CCH 19-2 Bt          | 5.67                                                    | 1.76 | 0.00 | 7.33  | <b>3.69</b> | <b>AETL</b> |
| Sunantha Bt          | 4.50                                                    | 2.08 | 0.67 | 10.67 | <b>4.48</b> | <b>AETL</b> |
| WGCV Bt 139          | 4.33                                                    | 2.32 | 0.67 | 10.33 | <b>4.41</b> | <b>AETL</b> |
| RAHBt 27             | 6.17                                                    | 1.87 | 0.00 | 9.00  | <b>4.26</b> | <b>AETL</b> |
| Suraj Super Bt       | 4.50                                                    | 1.87 | 1.67 | 6.00  | <b>3.51</b> | <b>AETL</b> |
| PKV 081 Bt (ZC Bt-2) | 5.17                                                    | 2.09 | 0.33 | 6.00  | <b>3.40</b> | <b>AETL</b> |
| WGCV Bt 134          | 6.33                                                    | 2.54 | 1.00 | 9.33  | <b>4.80</b> | <b>AETL</b> |
| LH Bt 8              | 3.50                                                    | 1.60 | 0.00 | 10.33 | <b>3.86</b> | <b>AETL</b> |
| NH 22072 Bt          | 5.00                                                    | 1.64 | 0.33 | 6.67  | <b>3.41</b> | <b>AETL</b> |
| RAHBt 28             | 3.17                                                    | 1.53 | 0.00 | 9.67  | <b>3.59</b> | <b>AETL</b> |
| LH Bt 6              | 3.00                                                    | 1.91 | 0.33 | 8.00  | <b>3.31</b> | <b>AETL</b> |
| WGCV Bt 138          | 5.00                                                    | 2.31 | 1.67 | 8.00  | <b>4.24</b> | <b>AETL</b> |
| RAHBt 29             | 4.00                                                    | 2.13 | 0.33 | 11.67 | <b>4.53</b> | <b>AETL</b> |
| Supriya Bt           | 4.00                                                    | 2.04 | 0.00 | 9.33  | <b>3.84</b> | <b>AETL</b> |
| NH 22032 Bt          | 6.33                                                    | 1.20 | 0.67 | 9.33  | <b>4.38</b> | <b>AETL</b> |
| CICR 23 Bt (ZC Bt-1) | 4.00                                                    | 2.03 | 0.33 | 7.67  | <b>3.51</b> | <b>AETL</b> |
| LH Bt 9              | 3.67                                                    | 1.46 | 0.00 | 8.67  | <b>3.45</b> | <b>AETL</b> |
| RAHBt 30             | 4.50                                                    | 1.46 | 0.00 | 9.33  | <b>3.82</b> | <b>AETL</b> |
| LH Bt 15             | 3.67                                                    | 1.35 | 0.67 | 5.67  | <b>2.84</b> | <b>AETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Green Boll  
Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| MCU 5-VT Bt          | 0.00                                    | 0.01 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Surabhi Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| CCH 19-2 Bt          | 0.00                                    | 0.24 | 0.00 | 0.00 | <b>0.06</b> | <b>BETL</b> |
| Sunantha Bt          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| WGCV Bt 139          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHBt 27             | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Suraj Super Bt       | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 0.00                                    | 0.12 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| WGCV Bt 134          | 0.00                                    | 0.01 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 8              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NH 22072 Bt          | 0.00                                    | 0.12 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| RAHBt 28             | 0.00                                    | 0.01 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 6              | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| WGCV Bt 138          | 0.00                                    | 0.01 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| RAHBt 29             | 0.00                                    | 0.07 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| Supriya Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| NH 22032 Bt          | 0.00                                    | 0.35 | 0.00 | 0.00 | <b>0.09</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 0.00                                    | 0.12 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| LH Bt 9              | 0.00                                    | 0.12 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| RAHBt 30             | 0.00                                    | 0.24 | 0.00 | 0.00 | <b>0.06</b> | <b>BETL</b> |
| LH Bt 15             | 0.00                                    | 0.12 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark      |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|-------------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |             |
| MCU 5-VT Bt          | 36.67                                                 | 3.00 | 15.00 | 56.67 | <b>27.83</b> | <b>AETL</b> |
| Surabhi Bt           | 28.33                                                 | 4.23 | 5.00  | 43.33 | <b>20.22</b> | <b>AETL</b> |
| CCH 19-2 Bt          | 35.00                                                 | 4.71 | 35.00 | 43.33 | <b>29.51</b> | <b>AETL</b> |
| Sunantha Bt          | 38.33                                                 | 2.46 | 10.00 | 66.67 | <b>29.36</b> | <b>AETL</b> |
| WGCV Bt 139          | 36.67                                                 | 4.15 | 20.00 | 53.33 | <b>28.54</b> | <b>AETL</b> |
| RAHBt 27             | 45.00                                                 | 4.88 | 10.00 | 43.33 | <b>25.80</b> | <b>AETL</b> |
| Suraj Super Bt       | 36.67                                                 | 2.93 | 35.00 | 40.00 | <b>28.65</b> | <b>AETL</b> |
| PKV 081 Bt (ZC Bt-2) | 31.67                                                 | 4.63 | 10.00 | 43.33 | <b>22.41</b> | <b>AETL</b> |
| WGCV Bt 134          | 41.67                                                 | 3.74 | 20.00 | 50.00 | <b>28.85</b> | <b>AETL</b> |
| LH Bt 8              | 31.67                                                 | 2.81 | 10.00 | 60.00 | <b>26.12</b> | <b>AETL</b> |
| NH 22072 Bt          | 35.00                                                 | 2.69 | 15.00 | 53.33 | <b>26.51</b> | <b>AETL</b> |
| RAHBt 28             | 21.67                                                 | 3.31 | 5.00  | 43.33 | <b>18.33</b> | <b>AETL</b> |
| LH Bt 6              | 15.00                                                 | 2.37 | 5.00  | 43.33 | <b>16.43</b> | <b>AETL</b> |
| WGCV Bt 138          | 23.33                                                 | 2.92 | 25.00 | 43.33 | <b>23.65</b> | <b>AETL</b> |
| RAHBt 29             | 18.33                                                 | 3.11 | 10.00 | 26.67 | <b>14.53</b> | <b>AETL</b> |
| Supriya Bt           | 28.33                                                 | 3.13 | 35.00 | 46.67 | <b>28.28</b> | <b>AETL</b> |
| NH 22032 Bt          | 33.33                                                 | 6.38 | 15.00 | 43.33 | <b>24.51</b> | <b>AETL</b> |
| CICR 23 Bt (ZC Bt-1) | 25.00                                                 | 6.99 | 20.00 | 40.00 | <b>23.00</b> | <b>AETL</b> |
| LH Bt 9              | 23.33                                                 | 6.70 | 15.00 | 46.67 | <b>22.92</b> | <b>AETL</b> |
| RAHBt 30             | 30.00                                                 | 5.98 | 20.00 | 53.33 | <b>27.33</b> | <b>AETL</b> |
| LH Bt 15             | 28.33                                                 | 9.02 | 10.00 | 43.33 | <b>22.67</b> | <b>AETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Open Boll****Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | RA    | CBE   | WR    | Mean         |        |
| MCU 5-VT Bt          | 46.85                | 9.79  | 12.12 | 30.00 | <b>24.69</b> |        |
| Surabhi Bt           | 41.22                | 10.45 | 9.39  | 45.00 | <b>26.52</b> |        |
| CCH 19-2 Bt          | 62.41                | 9.84  | 26.00 | 55.00 | <b>38.31</b> |        |
| Sunantha Bt          | 50.74                | 9.81  | 22.15 | 40.00 | <b>30.67</b> |        |
| WGCV Bt 139          | 41.26                | 9.83  | 21.95 | 20.00 | <b>23.26</b> |        |
| RAHBt 27             | 63.74                | 9.35  | 15.49 | 30.00 | <b>29.64</b> |        |
| Suraj Super Bt       | 31.51                | 11.10 | 18.17 | 35.00 | <b>23.94</b> |        |
| PKV 081 Bt (ZC Bt-2) | 40.22                | 10.98 | 19.89 | 40.00 | <b>27.77</b> |        |
| WGCV Bt 134          | 53.15                | 10.92 | 18.52 | 30.00 | <b>28.15</b> |        |
| LH Bt 8              | 48.91                | 9.83  | 25.12 | 40.00 | <b>30.96</b> |        |
| NH 22072 Bt          | 44.22                | 11.87 | 10.01 | 30.00 | <b>24.02</b> |        |
| RAHBt 28             | 37.26                | 12.35 | 15.62 | 40.00 | <b>26.31</b> |        |
| LH Bt 6              | 23.10                | 9.83  | 9.13  | 45.00 | <b>21.77</b> |        |
| WGCV Bt 138          | 34.67                | 11.80 | 8.78  | 30.00 | <b>21.31</b> |        |
| RAHBt 29             | 26.34                | 10.17 | 15.23 | 35.00 | <b>21.68</b> |        |
| Supriya Bt           | 37.51                | 11.32 | 16.44 | 55.00 | <b>30.07</b> |        |
| NH 22032 Bt          | 43.66                | 9.19  | 10.14 | 55.00 | <b>29.50</b> |        |
| CICR 23 Bt (ZC Bt-1) | 31.12                | 10.08 | 13.13 | 40.00 | <b>23.58</b> |        |
| LH Bt 9              | 29.65                | 5.52  | 24.47 | 30.00 | <b>22.41</b> |        |
| RAHBt 30             | 41.34                | 3.30  | 29.66 | 35.00 | <b>27.33</b> |        |
| LH Bt 15             | 37.18                | 9.54  | 12.19 | 45.00 | <b>25.98</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Locule****Damage**

| Name of Entry        | Locule Damage (%) |       |       |       |              | Remark |
|----------------------|-------------------|-------|-------|-------|--------------|--------|
|                      | GU                | RA    | CBE   | WR    | Mean         |        |
| MCU 5-VT Bt          | 21.65             | 7.48  | 4.60  | 13.68 | <b>11.85</b> |        |
| Surabhi Bt           | 20.24             | 8.14  | 4.24  | 17.62 | <b>12.56</b> |        |
| CCH 19-2 Bt          | 34.61             | 7.53  | 10.76 | 20.79 | <b>18.42</b> |        |
| Sunantha Bt          | 27.88             | 7.49  | 9.12  | 19.57 | <b>16.02</b> |        |
| WGCV Bt 139          | 19.65             | 7.51  | 9.08  | 9.14  | <b>11.35</b> |        |
| RAHBt 27             | 26.80             | 7.04  | 7.42  | 17.50 | <b>14.69</b> |        |
| Suraj Super Bt       | 19.41             | 8.79  | 6.83  | 18.88 | <b>13.48</b> |        |
| PKV 081 Bt (ZC Bt-2) | 20.61             | 8.66  | 8.65  | 14.29 | <b>13.05</b> |        |
| WGCV Bt 134          | 23.65             | 8.61  | 7.45  | 13.00 | <b>13.18</b> |        |
| LH Bt 8              | 20.70             | 7.52  | 9.29  | 21.84 | <b>14.84</b> |        |
| NH 22072 Bt          | 23.74             | 9.56  | 3.56  | 18.41 | <b>13.82</b> |        |
| RAHBt 28             | 20.54             | 10.04 | 6.28  | 16.16 | <b>13.26</b> |        |
| LH Bt 6              | 17.51             | 7.52  | 5.34  | 16.50 | <b>11.72</b> |        |
| WGCV Bt 138          | 18.69             | 9.49  | 3.88  | 13.57 | <b>11.41</b> |        |
| RAHBt 29             | 15.66             | 7.86  | 6.07  | 15.76 | <b>11.34</b> |        |
| Supriya Bt           | 22.67             | 9.01  | 8.65  | 20.49 | <b>15.20</b> |        |
| NH 22032 Bt          | 25.55             | 6.88  | 4.07  | 19.80 | <b>14.07</b> |        |
| CICR 23 Bt (ZC Bt-1) | 18.62             | 7.77  | 4.84  | 12.25 | <b>10.87</b> |        |
| LH Bt 9              | 17.10             | 3.21  | 11.61 | 13.88 | <b>11.45</b> |        |
| RAHBt 30             | 26.75             | 0.99  | 15.93 | 9.00  | <b>13.17</b> |        |
| LH Bt 15             | 20.36             | 7.23  | 5.01  | 16.75 | <b>12.34</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

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Table 7(c): Initial Evaluation Trial of Hirsutum Varieties - Irrigated (IET Variety IRR) Unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | LAM, Guntur                                                 |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | CoLS                                                        |    | GM   |    | Rust |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 12     | 55121   | MCU 5-VT Bt          | 37.0                                                        | MR | 10.0 | R  | 30.8 | MR | 4.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 6.0  | R  |
| 18     | 55122   | Surabhi Bt           | 26.8                                                        | MR | 11.5 | R  | 16.0 | R  | 5.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 6.0  | R  |
| 21     | 55123   | CCH 19-2 Bt          | 29.7                                                        | MR | 30.3 | MR | 31.5 | MR | 6.0                 | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 4.5  | R  |
| 1      | 55124   | Sunantha Bt          | 26.6                                                        | MR | 16.5 | R  | 10.0 | R  | 6.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 7.5  | R  |
| 15     | 55125   | WGCV Bt 139          | 38.3                                                        | MR | 28.8 | MR | 26.8 | MR | 4.0                 | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 6.0  | R  |
| 6      | 55126   | RAHBt 27             | 27.8                                                        | MR | 18.5 | R  | 13.5 | R  | 5.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.5  | R  |
| 9      | 55127   | Suraj Super Bt       | 32.0                                                        | MR | 28.5 | MR | 29.0 | MR | 6.0                 | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 0.0  | R  |
| 2      | 55128   | PKV 081 Bt (ZC Bt-2) | 28.8                                                        | MR | 18.5 | R  | 16.5 | R  | 5.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | R  |
| 20     | 55129   | WGCV Bt 134          | 8.0                                                         | R  | 30.3 | MR | 18.0 | R  | 4.5                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 4.0  | R  |
| 11     | 55130   | LH Bt 8              | 29.8                                                        | MR | 15.5 | R  | 20.3 | R  | 4.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 0.0  | R  |
| 13     | 55131   | NH 22072 Bt          | 30.2                                                        | MR | 29.3 | MR | 17.8 | R  | 4.5                 | R  | 0.0      | DF | 3.0 | R  | 0.0 | DF | 3.0  | R  |
| 16     | 55132   | RAHBt 28             | 28.8                                                        | MR | 12.2 | R  | 27.3 | MR | 4.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 3.5  | R  |
| 3      | 55133   | LH Bt 6              | 30.3                                                        | MR | 29.8 | MR | 29.7 | MR | 3.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 0.0  | R  |
| 8      | 55134   | WGCV Bt 138          | 27.3                                                        | MR | 30.0 | MR | 29.3 | MR | 4.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 3.0  | R  |
| 14     | 55135   | RAHBt 29             | 27.8                                                        | MR | 26.0 | MR | 30.0 | MR | 3.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.5  | R  |
| 19     | 55136   | Supriya Bt           | 29.0                                                        | MR | 30.0 | MR | 27.3 | MR | 3.0                 | R  | 0.0      | DF | 3.5 | R  | 3.3 | R  | 4.0  | R  |
| 4      | 55137   | NH 22032 Bt          | 31.8                                                        | MR | 28.5 | MR | 19.2 | R  | 5.0                 | R  | 0.0      | DF | 2.3 | R  | 1.7 | R  | 5.0  | R  |
| 10     | 55138   | CICR 23 Bt (ZC Bt-1) | 26.7                                                        | MR | 31.5 | MR | 30.3 | MR | 5.0                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.0  | R  |
| 17     | 55139   | LH Bt 9              | 27.8                                                        | MR | 26.8 | MR | 16.7 | R  | 7.0                 | R  | 0.0      | DF | 2.0 | R  | 3.0 | R  | 4.0  | R  |
| 7      | 55140   | RAHBt 30             | 28.0                                                        | MR | 27.3 | MR | 18.8 | R  | 3.0                 | R  | 0.0      | DF | 3.5 | R  | 0.0 | DF | 3.0  | R  |
| 5      | 55141   | LH Bt 15             | 30.0                                                        | MR | 30.0 | MR | 28.0 | MR | 5.0                 | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 5.0  | R  |

Table 7(d): Initial Evaluation Trial of Hirsutum Varieties - Irrigated (IET Variety IRR) Unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|------|----|
|        |         |                      | RARS, Warangal                                              |    |      |    |      |    |      |    |      |    |
|        |         |                      | ALS                                                         |    | CoLS |    | GM   |    | Rust |    | TSV  |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 12     | 55121   | MCU 5-VT Bt          | 7.0                                                         | R  | 14.0 | R  | 14.0 | R  | 41.0 | MR | 11.3 | R  |
| 18     | 55122   | Surabhi Bt           | 8.0                                                         | R  | 14.0 | R  | 13.0 | R  | 39.0 | MR | 18.8 | R  |
| 21     | 55123   | CCH 19-2 Bt          | 8.0                                                         | R  | 12.5 | R  | 11.5 | R  | 27.0 | MR | 16.3 | R  |
| 1      | 55124   | Sunantha Bt          | 7.5                                                         | R  | 7.5  | R  | 10.0 | R  | 27.5 | MR | 8.8  | R  |
| 15     | 55125   | WGCV Bt 139          | 7.0                                                         | R  | 8.0  | R  | 12.5 | R  | 18.0 | R  | 5.0  | R  |
| 6      | 55126   | RAHBt 27             | 6.5                                                         | R  | 7.0  | R  | 12.0 | R  | 30.5 | MR | 13.8 | R  |
| 9      | 55127   | Suraj Super Bt       | 6.0                                                         | R  | 6.0  | R  | 10.5 | R  | 18.0 | R  | 7.5  | R  |
| 2      | 55128   | PKV 081 Bt (ZC Bt-2) | 6.5                                                         | R  | 3.5  | R  | 21.0 | R  | 28.0 | MR | 16.3 | R  |
| 20     | 55129   | WGCV Bt 134          | 3.0                                                         | R  | 2.5  | R  | 9.5  | R  | 18.5 | R  | 6.3  | R  |
| 11     | 55130   | LH Bt 8              | 5.0                                                         | R  | 5.5  | R  | 13.5 | R  | 18.5 | R  | 5.0  | R  |
| 13     | 55131   | NH 22072 Bt          | 6.5                                                         | R  | 7.5  | R  | 12.0 | R  | 34.5 | MR | 7.5  | R  |
| 16     | 55132   | RAHBt 28             | 2.0                                                         | R  | 3.0  | R  | 10.5 | R  | 26.5 | MR | 11.3 | R  |
| 3      | 55133   | LH Bt 6              | 6.0                                                         | R  | 6.0  | R  | 23.0 | R  | 49.0 | MR | 5.0  | R  |
| 8      | 55134   | WGCV Bt 138          | 9.5                                                         | R  | 20.5 | R  | 17.0 | R  | 18.5 | R  | 5.0  | R  |
| 14     | 55135   | RAHBt 29             | 5.0                                                         | R  | 5.5  | R  | 15.5 | R  | 46.0 | MR | 11.3 | R  |
| 19     | 55136   | Supriya Bt           | 5.0                                                         | R  | 7.5  | R  | 16.0 | R  | 12.5 | R  | 11.3 | R  |
| 4      | 55137   | NH 22032 Bt          | 3.5                                                         | R  | 7.5  | R  | 19.0 | R  | 21.0 | R  | 6.3  | R  |
| 10     | 55138   | CICR 23 Bt (ZC Bt-1) | 7.0                                                         | R  | 7.5  | R  | 23.5 | R  | 47.0 | MR | 8.8  | R  |
| 17     | 55139   | LH Bt 9              | 6.0                                                         | R  | 6.5  | R  | 19.0 | R  | 24.0 | R  | 11.3 | R  |
| 7      | 55140   | RAHBt 30             | 10.0                                                        | R  | 8.5  | R  | 19.0 | R  | 36.0 | MR | 7.5  | R  |
| 5      | 55141   | LH Bt 15             | 6.0                                                         | R  | 7.0  | R  | 15.0 | R  | 31.0 | MR | 6.3  | R  |

## Advanced Evaluation Trial of Hirsutum Varieties (I) - Irrigated

### *Constitution of Trial*

The trial was constituted with six Bt cotton varieties containing deregulated events along with three different check varieties as furnished below.

| S. No. | Code-I | Code -II | Entries              | Sponsored by |
|--------|--------|----------|----------------------|--------------|
| 1      | 5      | 55151    | Local Check          |              |
| 2      | 1      | 55152    | RAHBT – 2*           | Raichur      |
| 3      | 8      | 55153    | WGCV Bt-180          | Warangal     |
| 4      | 3      | 55154    | BGDHBT - 3           | B'Gudi       |
| 5      | 9      | 55155    | NH 1909 Bt           | Nanded       |
| 6      | 6      | 55156    | LH Bt 02             | Lam          |
| 7      | 2      | 55157    | CICR 23 Bt (Bt ZC)   |              |
| 8      | 7      | 55158    | Suraksha (Non-Bt ZC) |              |
| 9      | 4      | 55159    | WGCV Bt-80           | Warangal     |

\*No germination was reported in all the centres

The trial was conducted in five different locations and detail is furnished below.

| Location    | Warangal  | Lam         | Raichur | B'Gudi* | Coimbatore |
|-------------|-----------|-------------|---------|---------|------------|
| Local Check | Sivanandi | NDLH 2051-1 | Sujay   | Sujay   | Sunantha   |

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Trial is conducted with recommended spacing for the variety.

**Number of rows:** 4 rows of 6 meters per entry with three replications





**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|---------|------------|--------------|
| 1      | <b>Local Check</b>          | 97.7     | 150.5 | 140.7   | 103.7      | <b>123.2</b> |
| 2      | WGCV Bt-180                 | 91.7     | 135.8 | 102.7   | 80.3       | <b>102.6</b> |
| 3      | BGDHBT - 3                  | 98.6     | 128.1 | 154.0   | 106.4      | <b>121.8</b> |
| 4      | NH 1909 Bt                  | 104.4    | 126.3 | 126.3   | 87.2       | <b>111.1</b> |
| 5      | LH Bt 02                    | 99.8     | 141.6 | 134.7   | 87.3       | <b>115.9</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 116.6    | 143.7 | 139.3   | 108.7      | <b>127.1</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 100.9    | 129.0 | 133.0   | 82.9       | <b>111.5</b> |
| 8      | WGCV Bt-80                  | 96.9     | 120.0 | 113.0   | 82.9       | <b>103.2</b> |
|        | CD @ 5%                     | 29.9     | NS    | 11.9    | 14.4       |              |
|        | CV %                        | 17.9     | 15.0  | 9.0     | 8.9        |              |

**Number of monopodia in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|------|---------|------------|------------|
| 1      | <b>Local Check</b>          | 1.2      | 1.7  | 1.0     | 0.7        | <b>1.2</b> |
| 2      | WGCV Bt-180                 | 0.5      | 1.8  | 0.9     | 0.5        | <b>0.9</b> |
| 3      | BGDHBT - 3                  | 2.5      | 1.7  | 1.7     | 2.3        | <b>2.1</b> |
| 4      | NH 1909 Bt                  | 1.5      | 1.8  | 1.4     | 0.3        | <b>1.3</b> |
| 5      | LH Bt 02                    | 0.6      | 1.2  | 1.2     | 0.3        | <b>0.8</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 1.1      | 1.7  | 0.9     | 1.3        | <b>1.3</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 0.4      | 2.2  | 1.1     | 0.1        | <b>1.0</b> |
| 8      | WGCV Bt-80                  | 2.6      | 1.9  | 1.0     | 0.5        | <b>1.5</b> |
|        | CD @ 5%                     | NS       | 0.4  | 0.3     | 0.9        |            |
|        | CV %                        | 83.2     | 14.4 | 17.8    | 69.4       |            |

**Number of sympodia in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 13.9     | 14.5 | 12.0    | 17.1       | <b>14.4</b> |
| 2      | WGCV Bt-180                 | 13.3     | 13.2 | 16.0    | 14.6       | <b>14.3</b> |
| 3      | BGDHBT - 3                  | 12.6     | 11.9 | 13.3    | 17.4       | <b>13.8</b> |
| 4      | NH 1909 Bt                  | 14.3     | 14.0 | 14.3    | 14.7       | <b>14.3</b> |
| 5      | LH Bt 02                    | 12.7     | 24.3 | 13.0    | 12.6       | <b>15.7</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 14.4     | 17.4 | 14.0    | 17.2       | <b>15.8</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 13.9     | 15.9 | 15.3    | 11.9       | <b>14.3</b> |
| 8      | WGCV Bt-80                  | 14.6     | 16.0 | 13.3    | 13.3       | <b>14.3</b> |
|        | CD @ 5%                     | NS       | 3.7  | 1.2     | 3.7        |             |
|        | CV %                        | 22.1     | 13.3 | 8.2     | 14.2       |             |



**Boll weight (g) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|------------|
| 1      | <b>Local Check</b>          | 3.9      | 4.9 | 5.5     | 5.0        | <b>4.8</b> |
| 2      | WGCV Bt-180                 | 4.3      | 4.9 | 5.4     | 5.2        | <b>5.0</b> |
| 3      | BGDHBT - 3                  | 3.2      | 3.5 | 4.9     | 4.3        | <b>4.0</b> |
| 4      | NH 1909 Bt                  | 4.1      | 4.7 | 5.4     | 4.7        | <b>4.7</b> |
| 5      | LH Bt 02                    | 3.6      | 5.5 | 6.3     | 5.0        | <b>5.1</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 2.8      | 3.9 | 4.4     | 4.3        | <b>3.9</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 4.6      | 4.9 | 7.0     | 5.8        | <b>5.6</b> |
| 8      | WGCV Bt-80                  | 4.1      | 5.1 | 5.5     | 4.7        | <b>4.9</b> |
|        | CD @ 5%                     | 0.8      | 0.5 | 0.4     | 0.3        |            |
|        | CV %                        | 11.6     | 6.5 | 7.0     | 3.7        |            |

**Number of bolls / plant in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 18.4     | 43.2 | 21.3    | 27.7       | <b>27.7</b> |
| 2      | WGCV Bt-180                 | 18.9     | 40.8 | 25.3    | 19.7       | <b>26.2</b> |
| 3      | BGDHBT - 3                  | 16.7     | 39.9 | 22.7    | 21.9       | <b>25.3</b> |
| 4      | NH 1909 Bt                  | 25.2     | 38.8 | 22.3    | 24.5       | <b>27.7</b> |
| 5      | LH Bt 02                    | 16.0     | 56.6 | 21.3    | 15.7       | <b>27.4</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 13.7     | 36.2 | 22.3    | 23.3       | <b>23.9</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 14.7     | 43.9 | 21.0    | 15.5       | <b>23.8</b> |
| 8      | WGCV Bt-80                  | 25.5     | 48.4 | 21.7    | 21.0       | <b>29.2</b> |
|        | CD @ 5%                     | NS       | 8.8  | 2.7     | 5.5        |             |
|        | CV %                        | 37.1     | 11.5 | 11.8    | 15.0       |             |

**Number of bolls / sq.m.in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Lam   | Coimbatore | Mean        |
|--------|-----------------------------|-------|------------|-------------|
| 1      | <b>Local Check</b>          | 83.8  | 68.3       | <b>76.1</b> |
| 2      | WGCV Bt-180                 | 74.8  | 48.7       | <b>61.8</b> |
| 3      | BGDHBT - 3                  | 72.1  | 54.2       | <b>63.2</b> |
| 4      | NH 1909 Bt                  | 72.3  | 60.4       | <b>66.4</b> |
| 5      | LH Bt 02                    | 124.6 | 38.7       | <b>81.7</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 62.5  | 57.4       | <b>60.0</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 75.0  | 38.4       | <b>56.7</b> |
| 8      | WGCV Bt-80                  | 78.9  | 51.9       | <b>65.4</b> |
|        | CD @ 5%                     | 19.7  | 13.7       |             |
|        | CV %                        | 13.9  | 15.0       |             |



**Lint Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|------------|
| 1      | <b>Local Check</b>          | 5.2      | 5.5 | 5.4     | 6.6        | <b>5.7</b> |
| 2      | WGCV Bt-180                 | 5.5      | 6.2 | 5.4     | 6.1        | <b>5.8</b> |
| 3      | BGDHBT - 3                  | 4.4      | 5.0 | 5.0     | 5.6        | <b>5.0</b> |
| 4      | NH 1909 Bt                  | 5.1      | 6.2 | 5.6     | 6.0        | <b>5.7</b> |
| 5      | LH Bt 02                    | 3.6      | 5.7 | 4.3     | 4.7        | <b>4.6</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 3.6      | 4.4 | 3.9     | 4.7        | <b>4.2</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 5.5      | 6.0 | 6.2     | 7.1        | <b>6.2</b> |
| 8      | WGCV Bt-80                  | 5.3      | 6.4 | 5.1     | 6.4        | <b>5.8</b> |
|        | CD @ 5%                     | NS       | 1.0 | 0.3     | 0.5        |            |
|        | CV %                        | 21.8     | 9.9 | 5.4     | 5.0        |            |

**Seed Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 10.9     | 11.1 | 9.5     | 12.2       | <b>10.9</b> |
| 2      | WGCV Bt-180                 | 12.3     | 12.4 | 11.8    | 14.4       | <b>12.7</b> |
| 3      | BGDHBT - 3                  | 8.6      | 10.6 | 9.3     | 10.9       | <b>9.9</b>  |
| 4      | NH 1909 Bt                  | 9.4      | 13.6 | 10.0    | 11.4       | <b>11.1</b> |
| 5      | LH Bt 02                    | 9.7      | 9.9  | 11.3    | 11.9       | <b>10.7</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 7.9      | 9.0  | 8.5     | 10.4       | <b>9.0</b>  |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 10.7     | 11.9 | 12.3    | 12.9       | <b>12.0</b> |
| 8      | WGCV Bt-80                  | 10.7     | 12.3 | 10.5    | 12.5       | <b>11.5</b> |
|        | CD @ 5%                     | NS       | 2.3  | 0.5     | 0.9        |             |
|        | CV %                        | 24.4     | 11.3 | 5.1     | 4.5        |             |

**Ginning outturn (%) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 32.5     | 33.4 | 36.4    | 35.1       | <b>34.4</b> |
| 2      | WGCV Bt-180                 | 31.1     | 33.5 | 31.3    | 30.0       | <b>31.5</b> |
| 3      | BGDHBT - 3                  | 34.0     | 32.2 | 34.8    | 33.8       | <b>33.7</b> |
| 4      | NH 1909 Bt                  | 35.1     | 31.4 | 35.8    | 34.4       | <b>34.2</b> |
| 5      | LH Bt 02                    | 27.1     | 36.6 | 27.7    | 28.1       | <b>29.9</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 31.4     | 33.1 | 31.3    | 31.3       | <b>31.8</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 34.1     | 33.7 | 33.6    | 35.4       | <b>34.2</b> |
| 8      | WGCV Bt-80                  | 33.1     | 34.4 | 32.9    | 33.7       | <b>33.5</b> |
|        | CD @ 5%                     | NS       | NS   | 1.4     | 1.8        |             |
|        | CV %                        | 20.3     | 8.3  | 4.1     | 3.2        |             |



**Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 29.0     | 28.0 | 28.6    | 30.3       | <b>29.0</b> |
| 2      | WGCV Bt-180                 | 28.2     | 27.8 | 29.4    | 27.9       | <b>28.3</b> |
| 3      | BGDHBT - 3                  | 25.5     | 25.4 | 29.3    | 25.0       | <b>26.3</b> |
| 4      | NH 1909 Bt                  | 27.4     | 27.8 | 28.2    | 28.0       | <b>27.9</b> |
| 5      | LH Bt 02                    | 28.4     | 28.8 | 30.2    | 29.6       | <b>29.3</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 27.5     | 27.6 | 28.3    | 27.9       | <b>27.8</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 29.3     | 31.3 | 31.0    | 30.3       | <b>30.5</b> |
| 8      | WGCV Bt-80                  | 27.0     | 28.4 | 28.9    | 27.7       | <b>28.0</b> |

**Uniformity index under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 84.0     | 84.0 | 84.0    | 86.0       | <b>84.5</b> |
| 2      | WGCV Bt-180                 | 84.0     | 84.0 | 83.0    | 84.2       | <b>83.8</b> |
| 3      | BGDHBT - 3                  | 81.0     | 83.0 | 83.0    | 84.4       | <b>82.9</b> |
| 4      | NH 1909 Bt                  | 83.0     | 84.0 | 84.0    | 84.2       | <b>83.8</b> |
| 5      | LH Bt 02                    | 83.0     | 83.0 | 84.0    | 84.5       | <b>83.6</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 82.0     | 82.0 | 83.0    | 83.8       | <b>82.7</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 83.0     | 84.0 | 86.0    | 86.1       | <b>84.8</b> |
| 8      | WGCV Bt-80                  | 83.0     | 86.0 | 87.0    | 85.1       | <b>85.3</b> |

**Micronaire under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|------------|
| 1      | <b>Local Check</b>          | 5.1      | 4.6 | 4.4     | 4.6        | <b>4.7</b> |
| 2      | WGCV Bt-180                 | 4.8      | 5.3 | 5.1     | 5.5        | <b>5.2</b> |
| 3      | BGDHBT - 3                  | 4.6      | 4.9 | 4.6     | 4.8        | <b>4.7</b> |
| 4      | NH 1909 Bt                  | 4.5      | 4.6 | 4.9     | 4.9        | <b>4.7</b> |
| 5      | LH Bt 02                    | 4.1      | 4.7 | 4.5     | 4.4        | <b>4.4</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 4.2      | 4.4 | 4.1     | 4.7        | <b>4.4</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 4.0      | 4.2 | 4.3     | 4.7        | <b>4.3</b> |
| 8      | WGCV Bt-80                  | 4.8      | 5.2 | 4.8     | 4.9        | <b>4.9</b> |



**Tenacity under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 30.4     | 31.6 | 26.9    | 30.1       | <b>29.8</b> |
| 2      | WGCV Bt-180                 | 30.7     | 29.8 | 29.5    | 27.1       | <b>29.3</b> |
| 3      | BGDHBT - 3                  | 27.3     | 26.5 | 28.7    | 24.8       | <b>26.8</b> |
| 4      | NH 1909 Bt                  | 29.9     | 29.7 | 26.8    | 27.8       | <b>28.6</b> |
| 5      | LH Bt 02                    | 31.0     | 32.9 | 31.1    | 30.4       | <b>31.4</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 28.6     | 29.2 | 27.9    | 28.0       | <b>28.4</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 30.2     | 33.5 | 29.3    | 27.0       | <b>30.0</b> |
| 8      | WGCV Bt-80                  | 28.7     | 30.6 | 28.8    | 26.7       | <b>28.7</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------|
| 1      | <b>Local Check</b>          | 3.57     | 13.73 | 18.85      | <b>12.05</b> |
| 2      | WGCV Bt-180                 | 5.37     | 15.32 | 10.60      | <b>10.43</b> |
| 3      | BGDHBT - 3                  | 3.04     | 14.76 | 4.43       | <b>7.41</b>  |
| 4      | NH 1909 Bt                  | 6.04     | 14.13 | 13.36      | <b>11.18</b> |
| 5      | LH Bt 02                    | 4.26     | 20.95 | 8.28       | <b>11.16</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 1.37     | 14.68 | 7.40       | <b>7.82</b>  |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 4.11     | 14.21 | 12.51      | <b>10.28</b> |
| 8      | WGCV Bt-80                  | 6.94     | 17.62 | 14.51      | <b>13.02</b> |
|        | CD @ 5%                     | 2.55     | 3.97  | 2.70       |              |
|        | CV %                        | 38.72    | 14.33 | 13.53      |              |

**Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean        |
|--------|-----------------------------|----------|-------|------------|-------------|
| 1      | <b>Local Check</b>          | 7.88     | 9.15  | 9.05       | <b>8.69</b> |
| 2      | WGCV Bt-180                 | 5.62     | 10.21 | 5.47       | <b>7.10</b> |
| 3      | BGDHBT - 3                  | 2.95     | 9.84  | 8.19       | <b>6.99</b> |
| 4      | NH 1909 Bt                  | 7.70     | 9.42  | 8.15       | <b>8.42</b> |
| 5      | LH Bt 02                    | 5.73     | 13.97 | 6.54       | <b>8.75</b> |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 4.13     | 9.79  | 12.59      | <b>8.84</b> |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 6.57     | 9.47  | 8.27       | <b>8.10</b> |
| 8      | WGCV Bt-80                  | 10.17    | 11.75 | 7.20       | <b>9.71</b> |
|        | CD @ 5%                     | 3.11     | 2.65  | 2.20       |             |
|        | CV %                        | 31.45    | 14.30 | 15.58      |             |



**Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|----------|-------|---------|------------|--------------|------|-----------------------|
| 1      | <b>Local Check</b>          | 11.45    | 22.88 | 33.26   | 27.91      | <b>23.88</b> | 2    | 0.0                   |
| 2      | WGCV Bt-180                 | 10.99    | 25.53 | 39.09   | 16.07      | <b>22.92</b> | 4    | -4.0                  |
| 3      | BGDHBT - 3                  | 5.99     | 24.60 | 29.05   | 12.62      | <b>18.07</b> | 8    | -24.4                 |
| 4      | NH 1909 Bt                  | 13.74    | 23.54 | 33.65   | 21.51      | <b>23.11</b> | 3    | -3.2                  |
| 5      | LH Bt 02                    | 9.99     | 34.92 | 28.11   | 14.83      | <b>21.96</b> | 5    | -8.0                  |
| 6      | <b>CICR 23 Bt (Bt ZC)</b>   | 5.49     | 24.47 | 34.05   | 19.99      | <b>21.00</b> | 7    | -12.1                 |
| 7      | <b>Suraksha (Non-Bt ZC)</b> | 10.69    | 23.68 | 31.13   | 20.78      | <b>21.57</b> | 6    | -9.7                  |
| 8      | WGCV Bt-80                  | 17.11    | 29.37 | 32.32   | 21.71      | <b>25.13</b> | 1    | 5.2                   |
|        | CD @ 5%                     | 3.65     | 6.66  | 4.90    | 4.00       |              |      |                       |
|        | CV %                        | 22.13    | 14.41 | 14.86   | 11.73      |              |      |                       |



### Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced Variety trial in South Zone under Protected Conditions –Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.63                              | 0.72 | 2.65 | 4.31 | <b>2.08</b> | <b>BETL</b> |
| WGCv Bt-180          | NG                                | 0.58 | -    | 3.64 | <b>2.11</b> | <b>BETL</b> |
| BGDHBT - 3           | 1.40                              | 0.49 | 2.23 | 4.31 | <b>2.11</b> | <b>BETL</b> |
| NH 1909 Bt           | 1.23                              | 1.20 | 2.66 | 4.09 | <b>2.30</b> | <b>BETL</b> |
| LH Bt 02             | 1.13                              | 0.65 | 2.01 | 4.93 | <b>2.18</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 1.00                              | 0.83 | 2.26 | 5.09 | <b>2.29</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 1.10                              | 0.60 | 3.10 | 4.98 | <b>2.45</b> | <b>BETL</b> |
| WGCv Bt-80           | 1.27                              | 0.44 | 2.83 | 4.00 | <b>2.13</b> | <b>BETL</b> |
| Local Check          | 0.90                              | 0.52 | 2.56 | 4.33 | <b>2.08</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced Variety trial in South Zone under Protected Conditions Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 2.00                                   | 1.13 | 2.11 | 1.47 | <b>1.68</b> | <b>BETL</b> |
| WGCv Bt-180          | NG                                     | 1.21 | -    | 1.51 | <b>1.36</b> | <b>BETL</b> |
| BGDHBT - 3           | 2.47                                   | 1.37 | 2.54 | 1.71 | <b>2.02</b> | <b>BETL</b> |
| NH 1909 Bt           | 2.70                                   | 1.67 | 2.63 | 1.84 | <b>2.21</b> | <b>BETL</b> |
| LH Bt 02             | 1.80                                   | 1.41 | 1.97 | 2.07 | <b>1.81</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 2.30                                   | 1.94 | 1.76 | 1.93 | <b>1.98</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 2.90                                   | 1.15 | 2.74 | 2.09 | <b>2.22</b> | <b>BETL</b> |
| WGCv Bt-80           | 2.40                                   | 1.28 | 3.04 | 2.24 | <b>2.24</b> | <b>BETL</b> |
| Local Check          | 2.80                                   | 1.18 | 2.30 | 1.93 | <b>2.05</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced Variety trial in South Zone under Protected Conditions -JIG**

| Name of Entry        | JIG/plant |    |     |    |      | Remark |
|----------------------|-----------|----|-----|----|------|--------|
|                      | GU        | RA | CBE | WR | Mean |        |
| Local Check          | I         | I  | I   | I  | I    |        |
| WGCv Bt-180          | <b>NG</b> | I  | -   | I  | I    |        |
| BGDHBT - 3           | I         | I  | I   | I  | I    |        |
| NH 1909 Bt           | II        | I  | I   | I  | I    |        |
| LH Bt 02             | I         | I  | I   | I  | I    |        |
| CICR 23 Bt (Bt ZC)   | I         | I  | I   | II | I    |        |
| Suraksha (Non-Bt ZC) | I         | I  | I   | I  | I    |        |
| WGCv Bt-80           | II        | I  | I   | I  | I    |        |
| Local Check          | I         | I  | I   | I  | I    |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal, NG- Not germinate**



**Table: Advanced Variety trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 3.57                               | 0.92 | 0.71 | 5.24 | <b>2.61</b> | <b>BETL</b> |
| WGCV Bt-180          | NG                                 | 0.90 | -    | 4.29 | <b>2.59</b> | <b>BETL</b> |
| BGDHBT - 3           | 4.03                               | 0.50 | 1.29 | 4.93 | <b>2.69</b> | <b>BETL</b> |
| NH 1909 Bt           | 3.78                               | 0.50 | 0.87 | 5.58 | <b>2.68</b> | <b>BETL</b> |
| LH Bt 02             | 4.43                               | 1.06 | 1.45 | 6.00 | <b>3.24</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 4.13                               | 1.38 | 0.84 | 5.71 | <b>3.02</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 4.27                               | 1.18 | 0.87 | 5.29 | <b>2.90</b> | <b>BETL</b> |
| WGCV Bt-80           | 3.23                               | 1.62 | 0.60 | 4.02 | <b>2.37</b> | <b>BETL</b> |
| Local Check          | 4.13                               | 1.86 | 1.89 | 6.09 | <b>3.49</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table-449- Advanced Variety trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.03                                 | 0.18 | 0.83 | 0.58 | <b>0.40</b> | <b>BETL</b> |
| WGCV Bt-180          | NG                                   | 0.16 | -    | 0.42 | <b>0.29</b> | <b>BETL</b> |
| BGDHBT - 3           | 0.13                                 | 0.21 | 0.71 | 0.38 | <b>0.36</b> | <b>BETL</b> |
| NH 1909 Bt           | 0.07                                 | 0.13 | 0.80 | 0.69 | <b>0.42</b> | <b>BETL</b> |
| LH Bt 02             | 0.00                                 | 0.15 | 0.66 | 0.31 | <b>0.28</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 0.17                                 | 0.19 | 0.48 | 0.67 | <b>0.38</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.13                                 | 0.13 | 0.93 | 0.51 | <b>0.43</b> | <b>BETL</b> |
| WGCV Bt-80           | 0.07                                 | 0.16 | 0.56 | 0.20 | <b>0.25</b> | <b>BETL</b> |
| Local Check          | 0.03                                 | 0.17 | 0.45 | 0.40 | <b>0.26</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.07                        | 1.08 | 0.24 | 0.18 | <b>0.39</b> |        |
| WGCV Bt-180          | NG                          | 1.67 | -    | 0.07 | <b>0.87</b> |        |
| BGDHBT - 3           | 0.13                        | 1.77 | 0.27 | 0.07 | <b>0.56</b> |        |
| NH 1909 Bt           | 0.17                        | 1.88 | 0.24 | 0.07 | <b>0.59</b> |        |
| LH Bt 02             | 0.10                        | 1.45 | 0.27 | 0.04 | <b>0.46</b> |        |
| CICR 23 Bt (Bt ZC)   | 0.13                        | 1.77 | 0.29 | 0.09 | <b>0.57</b> |        |
| Suraksha (Non-Bt ZC) | 0.10                        | 1.89 | 0.22 | 0.00 | <b>0.55</b> |        |
| WGCV Bt-80           | 0.20                        | 1.84 | 0.29 | 0.07 | <b>0.60</b> |        |
| Local Check          | 0.10                        | 1.87 | 0.20 | 0.11 | <b>0.57</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





**Table: Advanced Variety trial in South Zone under Protected Conditions–*Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |      | Remark |
|----------------------|--------------------------------------------|------|------|------|------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean |        |
| Local Check          | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-180          | NG                                         | 0.00 | -    | 0.00 | 0.00 | BETL   |
| BGDHBT - 3           | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 1909 Bt           | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 02             | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-80           | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Local Check          | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |      | Remark |
|----------------------|----------------------------------|------|------|------|------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean |        |
| Local Check          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-180          | NG                               | 0.00 | -    | 0.00 | 0.00 | BETL   |
| BGDHBT - 3           | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 1909 Bt           | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 02             | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-80           | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Local Check          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |      | Remark |
|----------------------|-----------------------------------------|------|------|------|------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean |        |
| Local Check          | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-180          | NG                                      | 0.00 | -    | 0.00 | 0.00 | BETL   |
| BGDHBT - 3           | 0.13                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |
| NH 1909 Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 02             | 0.17                                    | 0.00 | 0.00 | 0.00 | 0.04 | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                                    | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-80           | 0.03                                    | 0.00 | 0.00 | 0.00 | 0.01 | BETL   |
| Local Check          | 0.10                                    | 0.00 | 0.00 | 0.00 | 0.03 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced Variety trial in South Zone under Protected Conditions- Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.67                                                    | 1.11 | 0.67 | 2.22 | <b>1.17</b> | <b>AETL</b> |
| WGCV Bt-180          | NG                                                      | 1.22 | -    | 1.56 | <b>1.39</b> | <b>AETL</b> |
| BGDHBT - 3           | 1.00                                                    | 1.11 | 0.56 | 2.44 | <b>1.28</b> | <b>AETL</b> |
| NH 1909 Bt           | 0.83                                                    | 1.22 | 0.33 | 1.56 | <b>0.99</b> | <b>BETL</b> |
| LH Bt 02             | 1.00                                                    | 0.88 | 0.56 | 1.78 | <b>1.05</b> | <b>AETL</b> |
| CICR 23 Bt (Bt ZC)   | 0.83                                                    | 1.22 | 0.11 | 1.67 | <b>0.96</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.50                                                    | 1.00 | 0.78 | 1.44 | <b>0.93</b> | <b>BETL</b> |
| WGCV Bt-80           | 1.17                                                    | 1.00 | 0.67 | 1.67 | <b>1.12</b> | <b>AETL</b> |
| Local Check          | 0.67                                                    | 0.96 | 0.89 | 1.78 | <b>1.07</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.00                                    | 0.22 | 0.00 | 0.00 | <b>0.06</b> | <b>BETL</b> |
| WGCV Bt-180          | NG                                      | 0.05 | -    | 0.00 | <b>0.03</b> | <b>BETL</b> |
| BGDHBT - 3           | 0.00                                    | 0.47 | 0.00 | 0.00 | <b>0.12</b> | <b>BETL</b> |
| NH 1909 Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| LH Bt 02             | 0.00                                    | 0.17 | 1.23 | 0.00 | <b>0.35</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.00                                    | 0.04 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| WGCV Bt-80           | 0.00                                    | 0.04 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| Local Check          | 0.00                                    | 0.03 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark      |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|-------------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |             |
| Local Check          | 6.67                                                  | 3.07 | 20.00 | 13.33 | <b>10.77</b> | <b>AETL</b> |
| WGCV Bt-180          | NG                                                    | 1.72 | -     | 7.78  | <b>4.75</b>  | <b>BETL</b> |
| BGDHBT - 3           | 8.33                                                  | 5.02 | 3.33  | 12.22 | <b>7.23</b>  | <b>BETL</b> |
| NH 1909 Bt           | 6.67                                                  | 1.66 | 16.67 | 8.89  | <b>8.47</b>  | <b>BETL</b> |
| LH Bt 02             | 8.33                                                  | 2.14 | 15.00 | 8.89  | <b>8.59</b>  | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 6.67                                                  | 2.18 | 15.00 | 12.22 | <b>9.02</b>  | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 3.33                                                  | 2.13 | 26.67 | 11.11 | <b>10.81</b> | <b>AETL</b> |
| WGCV Bt-80           | 10.00                                                 | 2.39 | 23.33 | 12.22 | <b>11.99</b> | <b>AETL</b> |
| Local Check          | 6.67                                                  | 2.54 | 21.67 | 5.56  | <b>9.11</b>  | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced Variety trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |      |       |       |              | Remark |
|----------------------|----------------------|------|-------|-------|--------------|--------|
|                      | GU                   | RA   | CBE   | WR    | Mean         |        |
| Local Check          | 9.36                 | 4.36 | 10.23 | 16.67 | <b>10.15</b> |        |
| WGCV Bt-180          | NG                   | 3.96 | -     | 23.33 | <b>13.65</b> |        |
| BGDHBT - 3           | 8.14                 | 4.38 | 4.85  | 11.67 | <b>7.26</b>  |        |
| NH 1909 Bt           | 8.47                 | 3.25 | 9.03  | 15.00 | <b>8.94</b>  |        |
| LH Bt 02             | 7.35                 | 4.35 | 9.46  | 18.33 | <b>9.87</b>  |        |
| CICR 23 Bt (Bt ZC)   | 6.22                 | 3.92 | 9.56  | 25.00 | <b>11.18</b> |        |
| Suraksha (Non-Bt ZC) | 4.93                 | 3.86 | 7.75  | 13.33 | <b>7.47</b>  |        |
| WGCV Bt-80           | 9.00                 | 3.05 | 8.78  | 21.67 | <b>10.62</b> |        |
| Local Check          | 7.18                 | 3.67 | 4.82  | 26.67 | <b>10.58</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced Variety trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |      |      |             | Remark |
|----------------------|-------------------|------|------|------|-------------|--------|
|                      | GU                | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 4.21              | 2.74 | 2.62 | 7.58 | <b>4.29</b> |        |
| WGCV Bt-180          | NG                | 2.34 | -    | 6.31 | <b>4.32</b> |        |
| BGDHBT - 3           | 3.27              | 1.67 | 1.21 | 6.36 | <b>3.13</b> |        |
| NH 1909 Bt           | 2.95              | 1.63 | 2.68 | 5.63 | <b>3.22</b> |        |
| LH Bt 02             | 2.76              | 2.73 | 2.49 | 7.37 | <b>3.84</b> |        |
| CICR 23 Bt (Bt ZC)   | 2.18              | 2.30 | 2.39 | 8.34 | <b>3.80</b> |        |
| Suraksha (Non-Bt ZC) | 1.48              | 2.24 | 1.94 | 5.95 | <b>2.90</b> |        |
| WGCV Bt-80           | 3.75              | 1.56 | 2.39 | 4.56 | <b>3.06</b> |        |
| Local Check          | 2.92              | 2.05 | 1.21 | 8.70 | <b>3.72</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced Variety trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect-pests |      |      |      |             | Remark |
|----------------------|-----------------------------------|------|------|------|-------------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| WGCV Bt-180          | NG                                | 4.00 | -    | 5.00 | <b>4.50</b> |        |
| BGDHBT - 3           | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| NH 1909 Bt           | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| LH Bt 02             | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CICR 23 Bt (Bt ZC)   | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Suraksha (Non-Bt ZC) | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| WGCV Bt-80           | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Local Check          | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



## Reaction to Diseases

**Table 8 (a) Advanced Evaluation Trial of Hirsutum Varieties - Irrigated (AET-I Variety IRR) under Protected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|-----------------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                             | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                             | ALS                                                       |    | CoLS |    | GM   |    | Rust |    | TSV |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                             | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 5      | 55151   | Local Check                 | 4.2                                                       | R  | 5.5  | R  | 10.5 | R  | 26.2 | MR | 0.2 | R  | 6.0                 | R  | 0        | DF | 1.2 | R  | 2.2 | R  | 5.8  | R  |
| 1      | 55152   | RAHBT - 2                   | 1.5                                                       | R  | 1.8  | R  | 6.3  | R  | 15.7 | R  | 0.4 | R  | 0.0                 | DF | 0        | DF | 0.0 | DF | 0.0 | DF | 0.0  | DF |
| 8      | 55153   | WGCV Bt-180                 | 3.7                                                       | R  | 5.7  | R  | 12.8 | R  | 27.7 | MR | 1.3 | R  | 4.7                 | R  | 0        | DF | 1.3 | R  | 1.2 | R  | 5.3  | R  |
| 3      | 55154   | BGDHBT - 3                  | 4.3                                                       | R  | 5.8  | R  | 12.7 | R  | 28.5 | MR | 3.8 | R  | 4.2                 | R  | 0        | DF | 1.2 | R  | 2.0 | R  | 4.0  | R  |
| 9      | 55155   | NH 1909 Bt                  | 3.3                                                       | R  | 4.5  | R  | 11.7 | R  | 27.5 | MR | 3.1 | R  | 4.2                 | R  | 0        | DF | 2.3 | R  | 2.2 | R  | 6.2  | R  |
| 6      | 55156   | LH Bt 02                    | 2.8                                                       | R  | 4.0  | R  | 12.7 | R  | 26.7 | MR | 2.1 | R  | 5.3                 | R  | 0        | DF | 0.0 | DF | 2.9 | R  | 6.8  | R  |
| 2      | 55157   | CICR 23 Bt (Bt Zonal Check) | 3.2                                                       | R  | 3.8  | R  | 13.0 | R  | 26.7 | MR | 0.4 | R  | 5.2                 | R  | 0        | DF | 2.6 | R  | 2.7 | R  | 6.2  | R  |
| 7      | 55158   | Suraksha (Non-Bt ZC)        | 2.3                                                       | R  | 3.3  | R  | 13.0 | R  | 27.5 | MR | 2.1 | R  | 4.8                 | R  | 0        | DF | 0.0 | DF | 2.9 | R  | 5.0  | R  |
| 4      | 55159   | WGCV Bt-80                  | 2.2                                                       | R  | 2.0  | R  | 6.0  | R  | 14.3 | R  | 0.6 | R  | 5.7                 | R  | 0        | DF | 0.0 | DF | 2.1 | R  | 5.5  | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced Variety trial in South Zone under Unprotected Conditions –Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |       |      |             | Remark      |
|----------------------|-----------------------------------|------|-------|------|-------------|-------------|
|                      | GU                                | RA   | CBE   | WR   | Mean        |             |
| Local Check          | 5.10                              | 2.26 | 6.57  | 8.33 | <b>5.57</b> | <b>BETL</b> |
| WGCV Bt-180          | NG                                | 2.13 | -     | 8.13 | <b>5.13</b> | <b>BETL</b> |
| BGDHBT - 3           | 6.70                              | 1.99 | 7.53  | 7.93 | <b>6.04</b> | <b>BETL</b> |
| NH 1909 Bt           | 5.27                              | 2.74 | 8.44  | 7.53 | <b>6.00</b> | <b>BETL</b> |
| LH Bt 02             | 4.30                              | 2.19 | 6.19  | 6.53 | <b>4.80</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 5.57                              | 2.37 | 6.93  | 7.40 | <b>5.57</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 7.13                              | 2.15 | 5.09  | 8.07 | <b>5.61</b> | <b>BETL</b> |
| WGCV Bt-80           | 5.37                              | 2.31 | 10.22 | 7.73 | <b>6.41</b> | <b>BETL</b> |
| Local Check          | 6.08                              | 2.33 | 9.92  | 7.87 | <b>6.55</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced Variety trial in South Zone under Unprotected Conditions –  
Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 9.90                                   | 2.31 | 5.03 | 3.73 | <b>5.24</b> | <b>BETL</b> |
| WGCV Bt-180          | NG                                     | 2.94 | -    | 4.13 | <b>3.54</b> | <b>BETL</b> |
| BGDHBT - 3           | 9.37                                   | 2.89 | 6.40 | 3.93 | <b>5.65</b> | <b>BETL</b> |
| NH 1909 Bt           | 10.07                                  | 2.84 | 4.07 | 3.07 | <b>5.01</b> | <b>BETL</b> |
| LH Bt 02             | 7.67                                   | 3.09 | 4.23 | 3.93 | <b>4.73</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 9.17                                   | 3.12 | 4.70 | 4.40 | <b>5.35</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 8.87                                   | 2.32 | 3.70 | 4.20 | <b>4.77</b> | <b>BETL</b> |
| WGCV Bt-80           | 10.10                                  | 2.87 | 2.67 | 4.40 | <b>5.01</b> | <b>BETL</b> |
| Local Check          | 8.93                                   | 2.89 | 4.77 | 3.67 | <b>5.07</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Advanced Variety trial in South Zone under Unprotected Conditions - JIG**

| Name of Entry        | JIG/plant |    |     |     |           | Remark |
|----------------------|-----------|----|-----|-----|-----------|--------|
|                      | GU        | RA | CBE | WR  | Mean      |        |
| Local Check          | III       | I  | I   | III | <b>II</b> |        |
| WGCV Bt-180          | NG        | I  | -   | II  | <b>I</b>  |        |
| BGDHBT - 3           | III       | I  | I   | II  | <b>II</b> |        |
| NH 1909 Bt           | IV        | I  | I   | II  | <b>II</b> |        |
| LH Bt 02             | I         | I  | I   | II  | <b>I</b>  |        |
| CICR 23 Bt (Bt ZC)   | III       | II | I   | II  | <b>II</b> |        |
| Suraksha (Non-Bt ZC) | II        | I  | I   | II  | <b>II</b> |        |
| WGCV Bt-80           | IV        | II | I   | II  | <b>II</b> |        |
| Local Check          | II        | II | I   | II  | <b>II</b> |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark |
|----------------------|------------------------------------|------|------|-------|-------------|--------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |        |
| Local Check          | 7.57                               | 3.10 | 3.30 | 16.07 | <b>7.51</b> | BETL   |
| WGCV Bt-180          | NG                                 | 2.93 | -    | 10.87 | <b>6.90</b> | BETL   |
| BGDHBT - 3           | 8.23                               | 2.68 | 3.69 | 12.87 | <b>6.87</b> | BETL   |
| NH 1909 Bt           | 7.30                               | 2.41 | 3.51 | 13.40 | <b>6.65</b> | BETL   |
| LH Bt 02             | 6.67                               | 3.15 | 2.83 | 16.13 | <b>7.19</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 7.20                               | 3.11 | 2.74 | 14.93 | <b>7.00</b> | BETL   |
| Suraksha (Non-Bt ZC) | 8.37                               | 3.36 | 2.69 | 13.93 | <b>7.09</b> | BETL   |
| WGCV Bt-80           | 9.53                               | 3.19 | 3.48 | 17.60 | <b>8.45</b> | BETL   |
| Local Check          | 8.63                               | 3.25 | 1.56 | 17.93 | <b>7.84</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 1.17                                 | 0.73 | 1.59 | 0.60 | <b>1.02</b> | BETL   |
| WGCV Bt-180          | NG                                   | 0.75 | -    | 0.53 | <b>0.64</b> | BETL   |
| BGDHBT - 3           | 0.57                                 | 0.77 | 2.14 | 0.93 | <b>1.10</b> | BETL   |
| NH 1909 Bt           | 1.43                                 | 0.67 | 1.24 | 0.67 | <b>1.00</b> | BETL   |
| LH Bt 02             | 0.43                                 | 0.70 | 1.02 | 0.53 | <b>0.67</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 1.27                                 | 0.75 | 1.61 | 0.47 | <b>1.02</b> | BETL   |
| Suraksha (Non-Bt ZC) | 0.97                                 | 0.74 | 1.10 | 0.60 | <b>0.85</b> | BETL   |
| WGCV Bt-80           | 1.90                                 | 0.72 | 1.28 | 0.53 | <b>1.11</b> | BETL   |
| Local Check          | 1.00                                 | 0.72 | 1.27 | 0.67 | <b>0.91</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.13                        | 1.40 | 0.20 | 0.22 | <b>0.49</b> |        |
| WGCV Bt-180          | NG                          | 1.63 | -    | 0.07 | <b>0.85</b> |        |
| BGDHBT - 3           | 0.27                        | 1.73 | 0.20 | 0.07 | <b>0.57</b> |        |
| NH 1909 Bt           | 0.20                        | 1.84 | 0.00 | 0.04 | <b>0.52</b> |        |
| LH Bt 02             | 0.13                        | 1.40 | 0.00 | 0.22 | <b>0.44</b> |        |
| CICR 23 Bt (Bt ZC)   | 0.20                        | 1.73 | 0.00 | 0.16 | <b>0.52</b> |        |
| Suraksha (Non-Bt ZC) | 0.13                        | 1.85 | 0.00 | 0.17 | <b>0.54</b> |        |
| WGCV Bt-80           | 0.23                        | 1.83 | 0.00 | 0.00 | <b>0.52</b> |        |
| Local Check          | 0.17                        | 1.87 | 0.00 | 0.02 | <b>0.52</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Advanced Variety trial in South Zone under Unprotected Conditions – *Helicoverpa armigera*

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |      | Remark |
|----------------------|--------------------------------------------|------|------|------|------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean |        |
| Local Check          | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-180          | NG                                         | 0.22 | -    | 0.00 | 0.11 | BETL   |
| BGDHBT - 3           | 0.00                                       | 0.11 | 0.00 | 0.00 | 0.03 | BETL   |
| NH 1909 Bt           | 0.00                                       | 0.11 | 0.00 | 0.00 | 0.03 | BETL   |
| LH Bt 02             | 0.00                                       | 0.11 | 0.00 | 0.00 | 0.03 | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                                       | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                                       | 0.11 | 0.00 | 0.00 | 0.03 | BETL   |
| WGCV Bt-80           | 0.00                                       | 0.08 | 0.00 | 0.00 | 0.02 | BETL   |
| Local Check          | 0.00                                       | 0.08 | 0.00 | 0.00 | 0.02 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced Variety trial in South Zone under Unprotected Conditions - Spotted/Spiny Bollworms

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |      | Remark |
|----------------------|----------------------------------|------|------|------|------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean |        |
| Local Check          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-180          | NG                               | 0.00 | -    | 0.00 | 0.00 | BETL   |
| BGDHBT - 3           | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| NH 1909 Bt           | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| LH Bt 02             | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| WGCV Bt-80           | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |
| Local Check          | 0.00                             | 0.00 | 0.00 | 0.00 | 0.00 | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced Variety trial in South Zone under Unprotected Conditions – *Spodoptera litura*

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |      | Remark |
|----------------------|-----------------------------------------|------|------|------|------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean |        |
| Local Check          | 0.63                                    | 0.12 | 0.00 | 0.00 | 0.19 | BETL   |
| WGCV Bt-180          | NG                                      | 0.01 | -    | 0.00 | 0.01 | BETL   |
| BGDHBT - 3           | 0.47                                    | 0.12 | 0.00 | 0.00 | 0.15 | BETL   |
| NH 1909 Bt           | 0.70                                    | 0.12 | 0.00 | 0.00 | 0.21 | BETL   |
| LH Bt 02             | 0.53                                    | 0.12 | 0.00 | 0.00 | 0.16 | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.73                                    | 0.24 | 0.00 | 0.00 | 0.24 | BETL   |
| Suraksha (Non-Bt ZC) | 0.90                                    | 0.35 | 0.00 | 0.00 | 0.31 | BETL   |
| WGCV Bt-80           | 0.30                                    | 0.32 | 0.00 | 0.00 | 0.15 | BETL   |
| Local Check          | 0.40                                    | 0.36 | 0.00 | 0.00 | 0.19 | BETL   |

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**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls Destructive sampling) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 4.33                                                    | 2.17 | 1.67 | 5.67 | <b>3.46</b> | <b>AETL</b> |
| WGCV Bt-180          | NG                                                      | 2.23 | -    | 5.33 | <b>3.78</b> | <b>AETL</b> |
| BGDHBT - 3           | 3.33                                                    | 2.31 | 0.67 | 7.00 | <b>3.33</b> | <b>AETL</b> |
| NH 1909 Bt           | 2.50                                                    | 2.34 | 0.33 | 6.33 | <b>2.88</b> | <b>AETL</b> |
| LH Bt 02             | 4.00                                                    | 2.22 | 0.67 | 7.67 | <b>3.64</b> | <b>AETL</b> |
| CICR 23 Bt (Bt ZC)   | 2.50                                                    | 2.36 | 1.33 | 6.67 | <b>3.22</b> | <b>AETL</b> |
| Suraksha (Non-Bt ZC) | 2.83                                                    | 2.12 | 1.00 | 6.00 | <b>2.99</b> | <b>AETL</b> |
| WGCV Bt-80           | 4.33                                                    | 2.25 | 0.67 | 5.67 | <b>3.23</b> | <b>AETL</b> |
| Local Check          | 3.83                                                    | 2.25 | 1.00 | 8.67 | <b>3.94</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.00                                    | 0.67 | 0.00 | 0.00 | <b>0.17</b> | <b>BETL</b> |
| WGCV Bt-180          | NG                                      | 0.48 | -    | 0.00 | <b>0.24</b> | <b>BETL</b> |
| BGDHBT - 3           | 0.00                                    | 1.01 | 0.00 | 0.00 | <b>0.25</b> | <b>BETL</b> |
| NH 1909 Bt           | 0.00                                    | 0.21 | 0.00 | 0.00 | <b>0.05</b> | <b>BETL</b> |
| LH Bt 02             | 0.00                                    | 0.68 | 0.00 | 0.00 | <b>0.17</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 0.00                                    | 0.26 | 0.00 | 0.00 | <b>0.06</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.00                                    | 0.64 | 0.00 | 0.00 | <b>0.16</b> | <b>BETL</b> |
| WGCV Bt-80           | 0.00                                    | 0.44 | 0.00 | 0.00 | <b>0.11</b> | <b>BETL</b> |
| Local Check          | 0.00                                    | 0.41 | 0.00 | 0.00 | <b>0.10</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark      |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|-------------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |             |
| Local Check          | 35.00                                                 | 4.41 | 30.00 | 43.33 | <b>28.19</b> | <b>AETL</b> |
| WGCV Bt-180          | NG                                                    | 3.00 | -     | 36.67 | <b>19.83</b> | <b>AETL</b> |
| BGDHBT - 3           | 26.67                                                 | 6.37 | 5.00  | 40.00 | <b>19.51</b> | <b>AETL</b> |
| NH 1909 Bt           | 20.00                                                 | 2.93 | 10.00 | 40.33 | <b>18.32</b> | <b>AETL</b> |
| LH Bt 02             | 33.33                                                 | 3.42 | 10.00 | 46.67 | <b>23.35</b> | <b>AETL</b> |
| CICR 23 Bt (Bt ZC)   | 20.00                                                 | 3.46 | 15.00 | 30.00 | <b>17.11</b> | <b>AETL</b> |
| Suraksha (Non-Bt ZC) | 25.00                                                 | 3.41 | 25.00 | 40.00 | <b>23.35</b> | <b>AETL</b> |
| WGCV Bt-80           | 33.33                                                 | 3.14 | 20.00 | 30.00 | <b>21.62</b> | <b>AETL</b> |
| Local Check          | 35.00                                                 | 2.96 | 20.00 | 46.67 | <b>26.16</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





**Table: Advanced Variety trial in South Zone under Unprotected Conditions –Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | RA    | CBE   | WR    | Mean         |        |
| Local Check          | 55.61                | 9.49  | 15.59 | 30.00 | <b>27.67</b> |        |
| WGCV Bt-180          | NG                   | 8.80  | -     | 40.00 | <b>24.40</b> |        |
| BGDHBT - 3           | 40.65                | 11.32 | 22.37 | 30.00 | <b>26.08</b> |        |
| NH 1909 Bt           | 38.72                | 6.28  | 21.27 | 55.00 | <b>30.32</b> |        |
| LH Bt 02             | 41.36                | 8.26  | 17.79 | 40.00 | <b>26.85</b> |        |
| CICR 23 Bt (Bt ZC)   | 30.74                | 6.95  | 20.89 | 30.00 | <b>22.15</b> |        |
| Suraksha (Non-Bt ZC) | 35.21                | 8.43  | 17.97 | 35.00 | <b>24.15</b> |        |
| WGCV Bt-80           | 46.71                | 7.09  | 16.37 | 40.00 | <b>27.54</b> |        |
| Local Check          | 49.36                | 6.73  | 9.94  | 45.00 | <b>27.76</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |       |       |              | Remark |
|----------------------|-------------------|------|-------|-------|--------------|--------|
|                      | GU                | RA   | CBE   | WR    | Mean         |        |
| Local Check          | 30.25             | 7.32 | 9.64  | 13.07 | <b>15.07</b> |        |
| WGCV Bt-180          | NG                | 6.63 | -     | 19.60 | <b>13.11</b> |        |
| BGDHBT - 3           | 26.21             | 9.15 | 11.24 | 13.79 | <b>15.10</b> |        |
| NH 1909 Bt           | 20.77             | 4.11 | 8.87  | 14.22 | <b>11.99</b> |        |
| LH Bt 02             | 23.78             | 6.09 | 9.06  | 13.88 | <b>13.20</b> |        |
| CICR 23 Bt (Bt ZC)   | 18.64             | 4.78 | 10.45 | 15.27 | <b>12.28</b> |        |
| Suraksha (Non-Bt ZC) | 21.57             | 6.26 | 10.78 | 13.73 | <b>13.08</b> |        |
| WGCV Bt-80           | 28.63             | 4.92 | 7.55  | 10.00 | <b>12.77</b> |        |
| Local Check          | 30.27             | 4.56 | 3.42  | 16.00 | <b>13.56</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table 8(b) Advanced Evaluation Trial of Hirsutum Varieties - Irrigated (AET-I Variety IRR) under Unprotected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|-----------------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                             | RARS, Warangal                                              |    |      |    |      |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                             | ALS                                                         |    | CoLS |    | GM   |    | Rust |    | TSV  |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                             | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 5      | 55151   | Local Check                 | 6.5                                                         | R  | 6.0  | R  | 15.0 | R  | 50.0 | MR | 6.3  | R  | 4.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.0  | R  |
| 1      | 55152   | RAHBT - 2                   | 5.5                                                         | R  | 6.5  | R  | 13.5 | R  | 19.0 | R  | 5.0  | R  | 0.0                 | DF | 0.0      | DF | 4.5 | R  | 0.0 | DF | 0.0  | DF |
| 8      | 55153   | WGCV Bt-180                 | 8.5                                                         | R  | 12.5 | R  | 14.5 | R  | 32.5 | MR | 5.0  | R  | 5.0                 | R  | 0.0      | DF | 3.0 | R  | 3.7 | R  | 5.0  | R  |
| 3      | 55154   | BGDHBT - 3                  | 6.0                                                         | R  | 6.0  | R  | 15.5 | R  | 41.0 | MR | 17.5 | R  | 3.5                 | R  | 0.0      | DF | 2.0 | R  | 2.2 | R  | 4.5  | R  |
| 9      | 55155   | NH 1909 Bt                  | 4.0                                                         | R  | 6.0  | R  | 15.5 | R  | 38.5 | MR | 10.0 | R  | 4.0                 | R  | 0.0      | DF | 4.0 | R  | 3.2 | R  | 4.5  | R  |
| 6      | 55156   | LH Bt 02                    | 7.0                                                         | R  | 7.0  | R  | 15.0 | R  | 41.5 | MR | 8.8  | R  | 3.5                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 4.0  | R  |
| 2      | 55157   | CICR 23 Bt (Bt Zonal Check) | 7.0                                                         | R  | 7.0  | R  | 15.5 | R  | 27.5 | MR | 7.5  | R  | 5.0                 | R  | 0.0      | DF | 0.0 | DF | 3.3 | R  | 5.0  | R  |
| 7      | 55158   | Suraksha (Non-Bt ZC)        | 7.0                                                         | R  | 6.5  | R  | 14.0 | R  | 44.0 | MR | 7.5  | R  | 6.5                 | R  | 0.0      | DF | 3.5 | R  | 2.8 | R  | 5.5  | R  |
| 4      | 55159   | WGCV Bt-80                  | 6.0                                                         | R  | 8.5  | R  | 15.5 | R  | 23.0 | R  | 7.5  | R  | 4.0                 | R  | 0.0      | DF | 5.0 | R  | 3.5 | R  | 4.0  | R  |

Table 8(c) Advanced Evaluation Trial of Hirsutum Varieties - Irrigated (AET-I Variety IRR) under Protected and Unprotected conditions

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions: Lam, Guntur |    |      |    |      |    | Average PDI & Disease Reaction (DR): Un Protected conditions: Lam, Guntur |    |      |    |      |    |
|--------|---------|-----------------------------|------------------------------------------------------------------------|----|------|----|------|----|---------------------------------------------------------------------------|----|------|----|------|----|
|        |         |                             | CoLS                                                                   |    | GM   |    | Rust |    |                                                                           |    |      |    |      |    |
|        |         |                             | PDI                                                                    | DR | PDI  | DR | PDI  | DR | PDI                                                                       | DR | PDI  | DR | PDI  | DR |
| 5      | 55151   | Local Check                 | 26.0                                                                   | MR | 14.5 | R  | 15.0 | R  | 27.5                                                                      | MR | 16.0 | R  | 18.3 | R  |
| 1      | 55152   | RAHBT - 2                   | 29.3                                                                   | MR | 27.8 | MR | 27.3 | MR | 31.5                                                                      | MR | 30.0 | MR | 29.3 | MR |
| 8      | 55153   | WGCV Bt-180                 | 20.0                                                                   | R  | 21.3 | R  | 29.8 | MR | 21.5                                                                      | R  | 22.0 | R  | 30.5 | MR |
| 3      | 55154   | BGDHBT - 3                  | 14.5                                                                   | R  | 13.8 | R  | 9.5  | R  | 17.3                                                                      | R  | 16.3 | R  | 11.3 | R  |
| 9      | 55155   | NH 1909 Bt                  | 27.5                                                                   | MR | 28.3 | MR | 28.2 | MR | 42.0                                                                      | MR | 31.2 | MR | 29.0 | MR |
| 6      | 55156   | LH Bt 02                    | 26.0                                                                   | MR | 16.0 | R  | 28.3 | MR | 28.3                                                                      | MR | 18.0 | R  | 30.8 | MR |
| 2      | 55157   | CICR 23 Bt (Bt Zonal Check) | 31.3                                                                   | MR | 25.8 | MR | 30.8 | MR | 33.8                                                                      | MR | 26.8 | MR | 33.5 | MR |
| 7      | 55158   | Suraksha (Non-Bt ZC)        | 25.8                                                                   | MR | 26.2 | MR | 30.0 | MR | 26.0                                                                      | MR | 30.5 | MR | 31.0 | MR |
| 4      | 55159   | WGCV Bt-80                  | 27.0                                                                   | MR | 29.1 | MR | 29.0 | MR | 29.3                                                                      | MR | 31.2 | MR | 30.8 | MR |

## Advanced Evaluation Trial of Hirsutum Varieties (II) - Irrigated

### *Constitution of Trial*

The trial was constituted with four Bt cotton varieties containing deregulated events along with three different check varieties as furnished below.

| S. No. | Code-I | Code -II | Entries              | Sponsored by        |
|--------|--------|----------|----------------------|---------------------|
| 1      | 5      | 55161    | Local Check          |                     |
| 2      | 1      | 55162    | Lam Bt 2208 BG II    | RARS, Lam           |
| 3      | 7      | 55163    | Suraksha (Non-Bt ZC) |                     |
| 4      | 3      | 55164    | CICR 23 Bt (Bt ZC)   |                     |
| 5      | 6      | 55165    | WGCV Bt 28           | RARS, Warangal      |
| 6      | 4      | 55166    | ARCV 99 BGII         | Ankur Seeds Pvt Ltd |
| 7      | 2      | 55167    | ARCV 111 BGII        | Ankur Seeds Pvt Ltd |

The trial was conducted in five different locations and detail is furnished below.

| Location    | Warangal  | Lam         | Raichur | B'Gudi* | Coimbatore |
|-------------|-----------|-------------|---------|---------|------------|
| Local Check | Sivanandi | NDLH 2051-1 | Sujay   | Sujay   | Sunantha   |

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Trial is conducted with recommended spacing for the variety.

**Number of rows:** 4 rows of 6 meters per entry with three replications

### Data recorded:

#### Biometric evaluation

#### Plant height (cm) at harvest in Advanced Evaluation Trial of Hirsutum Varieties (II)

| S. No. | Entries              | Warangal | Lam   | Raichur | Coimbatore | Mean  |
|--------|----------------------|----------|-------|---------|------------|-------|
| 1      | Local Check          | 119.4    | 144.3 | 127.7   | 100.3      | 122.9 |
| 2      | Lam Bt 2208 BG II    | 103.5    | 167.7 | 126.3   | 92.1       | 122.4 |
| 3      | Suraksha (Non-Bt ZC) | 105.3    | 165.5 | 126.0   | 98.7       | 123.9 |
| 4      | CICR 23 Bt (Bt ZC)   | 106.7    | 158.0 | 130.0   | 109.7      | 126.1 |
| 5      | WGCV Bt 28           | 108.4    | 153.4 | 128.7   | 104.1      | 123.7 |
| 6      | ARCV 99 BGII         | 106.2    | 168.8 | 121.3   | 99.4       | 123.9 |
| 7      | ARCV 111 BGII        | 97.9     | 151.3 | 120.0   | 94.2       | 115.9 |
|        | CD @ 5%              | NS       | NS    | 9.4     | NS         |       |
|        | CV %                 | 9.1      | 10.6  | 7.3     | 6.9        |       |



**Number of monopodia in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|------|---------|------------|------------|
| 1      | <b>Local Check</b>          | 1.7      | 1.1  | 1.7     | 0.5        | <b>1.3</b> |
| 2      | Lam Bt 2208 BG II           | 1.0      | 0.6  | 1.1     | 0.6        | <b>0.8</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 0.5      | 1.8  | 0.7     | 0.2        | <b>0.8</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 1.7      | 1.3  | 0.5     | 0.7        | <b>1.1</b> |
| 5      | WGCV Bt 28                  | 2.6      | 1.6  | 1.3     | 1.0        | <b>1.6</b> |
| 6      | ARCV 99 BGII                | 1.3      | 0.7  | 1.1     | 0.2        | <b>0.8</b> |
| 7      | ARCV 111 BGII               | 0.3      | 1.2  | 0.4     | 0.0        | <b>0.5</b> |
|        | CD @ 5%                     | NS       | 0.2  | 0.3     | NS         |            |
|        | CV %                        | 70.0     | 10.0 | 19.6    | 119.4      |            |

**Number of sympodia in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 16.5     | 17.5 | 13.3    | 14.2       | <b>15.4</b> |
| 2      | Lam Bt 2208 BG II           | 15.5     | 26.5 | 13.7    | 12.9       | <b>17.2</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 13.9     | 14.7 | 14.0    | 15.1       | <b>14.4</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 14.0     | 13.0 | 13.0    | 15.2       | <b>13.8</b> |
| 5      | WGCV Bt 28                  | 14.7     | 25.2 | 14.3    | 14.8       | <b>17.3</b> |
| 6      | ARCV 99 BGII                | 14.6     | 26.5 | 13.7    | 14.1       | <b>17.2</b> |
| 7      | ARCV 111 BGII               | 13.1     | 23.6 | 15.0    | 13.6       | <b>16.3</b> |
|        | CD @ 5%                     | NS       | 4.0  | 1.2     | NS         |             |
|        | CV %                        | 11.5     | 10.5 | 8.4     | 11.3       |             |

**Boll weight (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|------|---------|------------|------------|
| 1      | <b>Local Check</b>          | 4.3      | 4.7  | 5.4     | 5.3        | <b>4.9</b> |
| 2      | Lam Bt 2208 BG II           | 4.2      | 6.1  | 5.8     | 5.7        | <b>5.5</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 5.2      | 5.1  | 6.7     | 6.3        | <b>5.8</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 3.0      | 4.7  | 4.4     | 4.1        | <b>4.1</b> |
| 5      | WGCV Bt 28                  | 4.2      | 5.1  | 5.4     | 5.3        | <b>5.0</b> |
| 6      | ARCV 99 BGII                | 4.4      | 6.1  | 5.6     | 5.8        | <b>5.5</b> |
| 7      | ARCV 111 BGII               | 4.8      | 4.6  | 5.8     | 5.1        | <b>5.1</b> |
|        | CD @ 5%                     | 0.4      | 1.0  | 0.4     | 0.5        |            |
|        | CV %                        | 5.2      | 10.9 | 6.8     | 4.8        |            |



**Number of bolls / plant in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 26.1     | 27.4 | 16.7    | 23.3       | <b>23.4</b> |
| 2      | Lam Bt 2208 BG II           | 21.4     | 60.1 | 18.0    | 17.1       | <b>29.2</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 15.3     | 25.9 | 18.3    | 19.5       | <b>19.8</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 21.3     | 23.9 | 17.0    | 24.3       | <b>21.6</b> |
| 5      | WGCV Bt 28                  | 26.9     | 54.1 | 17.3    | 20.8       | <b>29.8</b> |
| 6      | ARCV 99 BGII                | 17.9     | 60.5 | 15.0    | 17.8       | <b>27.8</b> |
| 7      | ARCV 111 BGII               | 24.7     | 31.9 | 21.0    | 21.0       | <b>24.7</b> |
|        | CD @ 5%                     | 6.7      | 9.8  | 1.7     | 2.9        |             |
|        | CV %                        | 17.1     | 13.4 | 9.4     | 7.8        |             |

**Number of bolls / sq.m.in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Lam   | Coimbatore | Mean        |
|--------|-----------------------------|-------|------------|-------------|
| 1      | <b>Local Check</b>          | 53.4  | 57.6       | <b>55.5</b> |
| 2      | Lam Bt 2208 BG II           | 132.2 | 42.3       | <b>87.3</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 49.8  | 48.2       | <b>49.0</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 47.1  | 59.9       | <b>53.5</b> |
| 5      | WGCV Bt 28                  | 119.0 | 51.4       | <b>85.2</b> |
| 6      | ARCV 99 BGII                | 133.0 | 44.0       | <b>88.5</b> |
| 7      | ARCV 111 BGII               | 60.9  | 51.9       | <b>56.4</b> |
|        | CD @ 5%                     | 18.7  | 7.0        |             |
|        | CV %                        | 12.2  | 7.8        |             |

**Lint Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|------|---------|------------|------------|
| 1      | <b>Local Check</b>          | 5.2      | 5.2  | 5.6     | 6.3        | <b>5.6</b> |
| 2      | Lam Bt 2208 BG II           | 5.3      | 7.5  | 5.9     | 7.1        | <b>6.5</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 5.4      | 5.5  | 6.4     | 7.0        | <b>6.1</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 3.5      | 4.4  | 4.3     | 4.5        | <b>4.2</b> |
| 5      | WGCV Bt 28                  | 5.6      | 6.1  | 5.8     | 7.0        | <b>6.1</b> |
| 6      | ARCV 99 BGII                | 5.5      | 7.6  | 5.4     | 7.0        | <b>6.4</b> |
| 7      | ARCV 111 BGII               | 5.9      | 4.9  | 5.8     | 6.5        | <b>5.8</b> |
|        | CD @ 5%                     | 0.8      | 1.2  | 0.3     | 0.5        |            |
|        | CV %                        | 9.1      | 11.3 | 5.6     | 4.1        |            |



**Seed Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 10.1     | 11.5 | 10.1    | 11.7       | <b>10.9</b> |
| 2      | Lam Bt 2208 BG II           | 9.9      | 12.5 | 10.7    | 12.5       | <b>11.4</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 12.1     | 11.9 | 12.3    | 13.3       | <b>12.4</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 7.7      | 8.1  | 8.9     | 9.8        | <b>8.6</b>  |
| 5      | WGCV Bt 28                  | 10.7     | 12.3 | 11.7    | 13.3       | <b>12.0</b> |
| 6      | ARCV 99 BGII                | 10.1     | 12.8 | 10.3    | 12.1       | <b>11.3</b> |
| 7      | ARCV 111 BGII               | 11.0     | 10.6 | 10.7    | 11.2       | <b>10.9</b> |
|        | CD @ 5%                     | 1.7      | 1.9  | 0.5     | 0.9        |             |
|        | CV %                        | 9.0      | 9.4  | 4.4     | 4.1        |             |

**Ginning outturn (%) in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 34.1     | 31.2 | 35.6    | 34.9       | <b>34.0</b> |
| 2      | Lam Bt 2208 BG II           | 35.0     | 37.3 | 35.6    | 36.3       | <b>36.1</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 31.0     | 31.4 | 34.3    | 34.3       | <b>32.8</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 31.1     | 35.2 | 32.6    | 31.6       | <b>32.6</b> |
| 5      | WGCV Bt 28                  | 34.4     | 33.2 | 33.2    | 34.4       | <b>33.8</b> |
| 6      | ARCV 99 BGII                | 35.3     | 37.4 | 34.3    | 36.7       | <b>35.9</b> |
| 7      | ARCV 111 BGII               | 34.7     | 31.4 | 35.2    | 36.8       | <b>34.5</b> |
|        | CD @ 5%                     | 1.8      | 4.8  | 1.0     | 1.0        |             |
|        | CV %                        | 2.9      | 7.8  | 2.9     | 1.7        |             |

**Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 27.8     | 30.3 | 28.8    | 30.8       | <b>29.4</b> |
| 2      | Lam Bt 2208 BG II           | 28.1     | 29.5 | 30.1    | 29.0       | <b>29.2</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 28.9     | 32.0 | 30.7    | 31.5       | <b>30.8</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 26.5     | 28.6 | 28.2    | 28.2       | <b>27.9</b> |
| 5      | WGCV Bt 28                  | 27.1     | 28.9 | 29.7    | 28.6       | <b>28.6</b> |
| 6      | ARCV 99 BGII                | 27.6     | 29.4 | 30.3    | 29.5       | <b>29.2</b> |
| 7      | ARCV 111 BGII               | 25.2     | 25.9 | 26.7    | 25.4       | <b>25.8</b> |



**Uniformity index under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 81.0     | 85.0 | 85.0    | 86.7       | <b>84.4</b> |
| 2      | Lam Bt 2208 BG II           | 83.0     | 84.0 | 84.0    | 83.6       | <b>83.7</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 82.0     | 84.0 | 85.0    | 83.4       | <b>83.6</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 82.0     | 83.0 | 83.0    | 83.7       | <b>82.9</b> |
| 5      | WGCV Bt 28                  | 84.0     | 85.0 | 87.0    | 86.1       | <b>85.5</b> |
| 6      | ARCV 99 BGII                | 83.0     | 84.0 | 85.0    | 83.5       | <b>83.9</b> |
| 7      | ARCV 111 BGII               | 82.0     | 83.0 | 82.0    | 82.3       | <b>82.3</b> |

**Micronaire under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|------------|
| 1      | <b>Local Check</b>          | 4.3      | 4.7 | 4.6     | 4.5        | <b>4.5</b> |
| 2      | Lam Bt 2208 BG II           | 4.7      | 4.7 | 5.0     | 4.8        | <b>4.8</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 4.2      | 4.3 | 4.1     | 3.9        | <b>4.1</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 4.2      | 4.6 | 4.4     | 4.4        | <b>4.4</b> |
| 5      | WGCV Bt 28                  | 4.6      | 4.9 | 4.7     | 4.8        | <b>4.8</b> |
| 6      | ARCV 99 BGII                | 4.5      | 5.1 | 4.3     | 5.1        | <b>4.8</b> |
| 7      | ARCV 111 BGII               | 4.9      | 5.0 | 5.3     | 5.1        | <b>5.1</b> |

**Tenacity under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | <b>Local Check</b>          | 29.5     | 32.4 | 28.3    | 29.3       | <b>29.9</b> |
| 2      | Lam Bt 2208 BG II           | 30.8     | 33.1 | 30.7    | 30.0       | <b>31.2</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 30.2     | 31.8 | 30.6    | 32.7       | <b>31.3</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 28.6     | 30.8 | 29.2    | 27.3       | <b>29.0</b> |
| 5      | WGCV Bt 28                  | 28.6     | 32.1 | 32.2    | 28.9       | <b>30.5</b> |
| 6      | ARCV 99 BGII                | 29.8     | 32.0 | 32.8    | 29.4       | <b>31.0</b> |
| 7      | ARCV 111 BGII               | 25.6     | 27.2 | 30.1    | 25.5       | <b>27.1</b> |





**Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------|
| 1      | <b>Local Check</b>          | 6.70     | 12.07 | 18.43      | <b>12.40</b> |
| 2      | Lam Bt 2208 BG II           | 5.95     | 21.97 | 12.83      | <b>13.58</b> |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 5.87     | 17.29 | 13.01      | <b>12.06</b> |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 2.43     | 13.48 | 6.88       | <b>7.60</b>  |
| 5      | WGCV Bt 28                  | 9.23     | 19.60 | 9.66       | <b>12.83</b> |
| 6      | ARCV 99 BGII                | 6.86     | 21.85 | 15.76      | <b>14.82</b> |
| 7      | ARCV 111 BGII               | 8.15     | 17.97 | 17.35      | <b>14.49</b> |
|        | CD @ 5%                     | 1.88     | 4.49  | 1.90       |              |
|        | CV %                        | 16.16    | 14.05 | 8.03       |              |

**Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------|
| 1      | <b>Local Check</b>          | 6.39     | 7.26  | 11.19      | <b>8.28</b>  |
| 2      | Lam Bt 2208 BG II           | 7.46     | 12.89 | 8.89       | <b>9.75</b>  |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 4.13     | 11.40 | 11.11      | <b>8.88</b>  |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 4.98     | 7.20  | 14.53      | <b>8.90</b>  |
| 5      | WGCV Bt 28                  | 7.45     | 10.58 | 14.77      | <b>10.93</b> |
| 6      | ARCV 99 BGII                | 7.41     | 13.06 | 7.90       | <b>9.46</b>  |
| 7      | ARCV 111 BGII               | 4.26     | 11.68 | 5.35       | <b>7.10</b>  |
|        | CD @ 5%                     | 1.50     | 2.78  | 2.30       |              |
|        | CV %                        | 13.90    | 14.62 | 10.96      |              |

**Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (II)**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|----------|-------|---------|------------|--------------|------|-----------------------|
| 1      | <b>Local Check</b>          | 13.09    | 19.33 | 28.43   | 29.62      | <b>22.62</b> | 6    | -9.2                  |
| 2      | Lam Bt 2208 BG II           | 13.41    | 34.86 | 34.81   | 21.72      | <b>26.20</b> | 1    | 5.2                   |
| 3      | <b>Suraksha (Non-Bt ZC)</b> | 10.00    | 28.69 | 36.78   | 24.12      | <b>24.90</b> | 5    | 0.0                   |
| 4      | <b>CICR 23 Bt (Bt ZC)</b>   | 7.41     | 20.68 | 29.62   | 21.41      | <b>19.78</b> | 7    | -20.6                 |
| 5      | WGCV Bt 28                  | 16.68    | 30.18 | 32.49   | 24.44      | <b>25.95</b> | 3    | 4.2                   |
| 6      | ARCV 99 BGII                | 14.26    | 34.91 | 26.97   | 23.67      | <b>24.95</b> | 4    | 0.2                   |
| 7      | ARCV 111 BGII               | 12.41    | 29.64 | 39.23   | 22.70      | <b>26.00</b> | 2    | 4.4                   |
|        | CD @ 5%                     | 2.07     | 6.19  | 2.66    | 2.70       |              |      |                       |
|        | CV %                        | 9.24     | 12.15 | 7.94    | 6.29       |              |      |                       |



## Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced Variety trial in South Zone under Protected Conditions –Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 1.00                              | 0.50 | 1.93 | 4.67 | <b>2.03</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 1.27                              | 1.27 | 2.93 | 4.98 | <b>2.61</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 1.13                              | 1.02 | 2.14 | 5.02 | <b>2.33</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 1.07                              | 0.42 | 2.66 | 3.84 | <b>2.00</b> | <b>BETL</b> |
| WGCV Bt 28           | 1.10                              | 0.48 | 1.75 | 4.20 | <b>1.88</b> | <b>BETL</b> |
| ARCV 99 BGII         | 0.97                              | 0.72 | 2.28 | 3.93 | <b>1.98</b> | <b>BETL</b> |
| ARCV 111 BGII        | 1.30                              | 0.46 | 2.20 | 5.00 | <b>2.24</b> | <b>BETL</b> |

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**Table: Advanced Variety trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 2.43                                   | 0.71 | 3.03 | 2.02 | <b>2.05</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 1.90                                   | 1.34 | 4.42 | 1.80 | <b>2.37</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 2.33                                   | 1.49 | 3.17 | 1.60 | <b>2.15</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 2.60                                   | 1.44 | 2.90 | 1.56 | <b>2.12</b> | <b>BETL</b> |
| WGCV Bt 28           | 2.00                                   | 1.91 | 2.89 | 1.93 | <b>2.18</b> | <b>BETL</b> |
| ARCV 99 BGII         | 2.73                                   | 2.08 | 2.92 | 1.84 | <b>2.39</b> | <b>BETL</b> |
| ARCV 111 BGII        | 2.37                                   | 0.59 | 1.75 | 1.76 | <b>1.62</b> | <b>BETL</b> |

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**Table: Advanced Variety trial in South Zone under Protected Conditions -JIG**

| Name of Entry        | JIG/plant |    |     |    |      | Remark |
|----------------------|-----------|----|-----|----|------|--------|
|                      | GU        | RA | CBE | WR | Mean |        |
| Local Check          | I         | I  | I   | II | I    |        |
| Lam Bt 2208 BG II    | I         | I  | I   | II | I    |        |
| Suraksha (Non-Bt ZC) | I         | I  | I   | I  | I    |        |
| CICR 23 Bt (Bt ZC)   | I         | I  | I   | I  | I    |        |
| WGCV Bt 28           | I         | I  | I   | II | I    |        |
| ARCV 99 BGII         | II        | I  | I   | I  | I    |        |
| ARCV 111 BGII        | I         | I  | I   | I  | I    |        |

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**Table: Advanced Variety trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 4.63                               | 2.08 | 1.01 | 5.56 | <b>3.32</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 4.20                               | 0.73 | 1.14 | 6.18 | <b>3.06</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 4.30                               | 0.50 | 0.88 | 6.07 | <b>2.94</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 5.23                               | 1.07 | 1.54 | 5.69 | <b>3.38</b> | <b>BETL</b> |
| WGCV Bt 28           | 3.43                               | 0.93 | 1.76 | 5.93 | <b>3.01</b> | <b>BETL</b> |
| ARCV 99 BGII         | 4.27                               | 0.97 | 0.35 | 5.02 | <b>2.65</b> | <b>BETL</b> |
| ARCV 111 BGII        | 4.93                               | 1.38 | 2.82 | 4.86 | <b>3.50</b> | <b>BETL</b> |

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**Table: Advanced Variety trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.10                                 | 0.42 | 1.43 | 0.49 | <b>0.61</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 0.00                                 | 0.09 | 0.90 | 0.29 | <b>0.32</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.03                                 | 0.06 | 0.95 | 0.53 | <b>0.39</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 0.13                                 | 0.40 | 0.69 | 0.47 | <b>0.42</b> | <b>BETL</b> |
| WGCV Bt 28           | 0.00                                 | 0.11 | 0.92 | 0.36 | <b>0.35</b> | <b>BETL</b> |
| ARCV 99 BGII         | 0.03                                 | 0.00 | 0.46 | 0.22 | <b>0.18</b> | <b>BETL</b> |
| ARCV 111 BGII        | 0.10                                 | 0.15 | 0.72 | 0.27 | <b>0.31</b> | <b>BETL</b> |

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**Table: Advanced Variety trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.23                        | 0.94 | 0.11 | 0.07 | <b>0.34</b> |        |
| Lam Bt 2208 BG II    | 0.17                        | 0.86 | 0.20 | 0.09 | <b>0.33</b> |        |
| Suraksha (Non-Bt ZC) | 0.07                        | 0.71 | 0.20 | 0.11 | <b>0.27</b> |        |
| CICR 23 Bt (Bt ZC)   | 0.10                        | 1.03 | 0.09 | 0.07 | <b>0.32</b> |        |
| WGCV Bt 28           | 0.10                        | 0.87 | 0.16 | 0.16 | <b>0.32</b> |        |
| ARCV 99 BGII         | 0.10                        | 0.81 | 0.16 | 0.04 | <b>0.28</b> |        |
| ARCV 111 BGII        | 0.07                        | 1.10 | 0.32 | 0.16 | <b>0.41</b> |        |

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**Table: Advanced Variety trial in South Zone under Protected Conditions – *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Lam Bt 2208 BG II    | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| WGCV Bt 28           | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ARCV 99 BGII         | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ARCV 111 BGII        | 0.00                                       | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

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**Table: Advanced Variety trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|----------------------|----------------------------------|------|------|------|-------------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Lam Bt 2208 BG II    | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| WGCV Bt 28           | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ARCV 99 BGII         | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ARCV 111 BGII        | 0.00                             | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions –*****Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.07                                    | 0.00 | 0.00 | 0.00 | <b>0.02</b> | BETL   |
| Lam Bt 2208 BG II    | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha (Non-Bt ZC) | 0.10                                    | 0.00 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.03                                    | 0.00 | 0.00 | 0.00 | <b>0.01</b> | BETL   |
| WGCV Bt 28           | 0.13                                    | 0.00 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| ARCV 99 BGII         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| ARCV 111 BGII        | 0.17                                    | 0.00 | 0.00 | 0.00 | <b>0.04</b> | BETL   |

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**Table: Advanced Variety trial in South Zone under Protected Conditions- Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls Destructive sampling) |      |      |      |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.67                                                    | 0.89 | 0.22 | 2.00 | <b>0.94</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 0.83                                                    | 0.17 | 0.33 | 2.22 | <b>0.89</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 1.17                                                    | 0.91 | 0.33 | 2.33 | <b>1.19</b> | <b>AETL</b> |
| CICR 23 Bt (Bt ZC)   | 1.00                                                    | 0.69 | 0.78 | 1.33 | <b>0.95</b> | <b>BETL</b> |
| WGCV Bt 28           | 0.50                                                    | 0.17 | 0.78 | 1.22 | <b>0.67</b> | <b>BETL</b> |
| ARCV 99 BGII         | 0.83                                                    | 0.17 | 0.33 | 1.78 | <b>0.78</b> | <b>BETL</b> |
| ARCV 111 BGII        | 1.17                                                    | 0.17 | 0.44 | 1.33 | <b>0.78</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| WGCV Bt 28           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ARCV 99 BGII         | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| ARCV 111 BGII        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%)/ 10 bolls destructive sampling |      |       |       |             | Remark      |
|----------------------|------------------------------------------------------|------|-------|-------|-------------|-------------|
|                      | GU                                                   | RA   | CBE   | WR    | Mean        |             |
| Local Check          | 3.33                                                 | 2.16 | 5.00  | 12.22 | <b>5.68</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 6.67                                                 | 2.12 | 8.33  | 12.22 | <b>7.34</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 6.67                                                 | 1.40 | 13.33 | 9.56  | <b>7.74</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 8.33                                                 | 1.68 | 11.67 | 8.89  | <b>7.64</b> | <b>BETL</b> |
| WGCV Bt 28           | 5.00                                                 | 2.06 | 6.67  | 7.78  | <b>5.38</b> | <b>BETL</b> |
| ARCV 99 BGII         | 6.67                                                 | 2.59 | 13.33 | 10.00 | <b>8.15</b> | <b>BETL</b> |
| ARCV 111 BGII        | 6.67                                                 | 2.66 | 10.00 | 8.89  | <b>7.05</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced Variety trial in South Zone under Protected Conditions –Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |      |      |       |              | Remark |
|----------------------|----------------------|------|------|-------|--------------|--------|
|                      | GU                   | RA   | CBE  | WR    | Mean         |        |
| Local Check          | 5.12                 | 3.42 | 6.82 | 33.33 | <b>12.17</b> |        |
| Lam Bt 2208 BG II    | 8.36                 | 3.38 | 2.35 | 21.67 | <b>8.94</b>  |        |
| Suraksha (Non-Bt ZC) | 7.51                 | 2.66 | 9.19 | 18.33 | <b>9.42</b>  |        |
| CICR 23 Bt (Bt ZC)   | 9.14                 | 2.94 | 3.49 | 25.00 | <b>10.14</b> |        |
| WGCv Bt 28           | 5.55                 | 3.32 | 4.61 | 35.00 | <b>12.12</b> |        |
| ARCV 99 BGII         | 7.87                 | 3.85 | 8.00 | 21.67 | <b>10.35</b> |        |
| ARCV 111 BGII        | 8.32                 | 3.92 | 7.55 | 20.00 | <b>9.95</b>  |        |

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**Table: Advanced Variety trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |      |       |             | Remark |
|----------------------|-------------------|------|------|-------|-------------|--------|
|                      | GU                | RA   | CBE  | WR    | Mean        |        |
| Local Check          | 2.11              | 1.88 | 2.13 | 10.52 | <b>4.16</b> |        |
| Lam Bt 2208 BG II    | 3.26              | 1.84 | 0.59 | 6.62  | <b>3.08</b> |        |
| Suraksha (Non-Bt ZC) | 2.17              | 1.12 | 2.99 | 12.83 | <b>4.78</b> |        |
| CICR 23 Bt (Bt ZC)   | 4.10              | 1.71 | 0.99 | 6.51  | <b>3.33</b> |        |
| WGCv Bt 28           | 2.39              | 2.09 | 1.38 | 8.53  | <b>3.60</b> |        |
| ARCV 99 BGII         | 2.14              | 2.62 | 2.79 | 5.63  | <b>3.29</b> |        |
| ARCV 111 BGII        | 3.36              | 2.69 | 1.89 | 7.09  | <b>3.76</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Protected Conditions – No. of Sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect-pests |      |      |      |             | Remark |
|----------------------|-----------------------------------|------|------|------|-------------|--------|
|                      | GU                                | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Lam Bt 2208 BG II    | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Suraksha (Non-Bt ZC) | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CICR 23 Bt (Bt ZC)   | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| WGCv Bt 28           | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| ARCV 99 BGII         | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| ARCV 111 BGII        | 5.00                              | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table-9(a) Advanced Evaluation Trial of Hirsutum Varieties - Irrigated (AET-II Variety IRR) under protected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|-----------------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                             | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                             | ALS                                                       |    | CoLS |    | GM   |    | Rust |    | TSV |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                             | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 5      | 55161   | Local Check                 | 3.7                                                       | R  | 6.8  | R  | 11.5 | R  | 27.2 | MR | 2.4 | R  | 3.2                 | R  | 0.0      | DF | 1.5 | R  | 2.2 | R  | 5.7  | R  |
| 1      | 55162   | Lam Bt 2208 BG II           | 3.5                                                       | R  | 5.0  | R  | 13.0 | R  | 27.2 | MR | 3.2 | R  | 4.3                 | R  | 0.0      | DF | 0.0 | DF | 2.4 | R  | 6.2  | R  |
| 7      | 55163   | Suraksha (Non-Bt ZC)        | 3.0                                                       | R  | 3.8  | R  | 13.7 | R  | 27.2 | MR | 3.6 | R  | 6.2                 | R  | 0.0      | DF | 1.3 | R  | 0.9 | R  | 6.2  | R  |
| 3      | 55164   | CICR 23 Bt (Bt Zonal Check) | 3.0                                                       | R  | 4.7  | R  | 11.3 | R  | 27.2 | MR | 3.6 | R  | 4.3                 | R  | 0.0      | DF | 1.8 | R  | 1.1 | R  | 7.0  | R  |
| 6      | 55165   | WGCV Bt 28                  | 4.2                                                       | R  | 6.8  | R  | 12.0 | R  | 28.2 | MR | 3.5 | R  | 5.5                 | R  | 0.0      | DF | 0.7 | R  | 0.8 | R  | 7.0  | R  |
| 4      | 55166   | ARCV 99 BGII                | 3.8                                                       | R  | 5.2  | R  | 12.8 | R  | 28.5 | MR | 1.7 | R  | 5.8                 | R  | 0.0      | DF | 1.2 | R  | 1.8 | R  | 6.7  | R  |
| 2      | 55167   | ARCV 111 BGII               | 1.2                                                       | R  | 1.8  | R  | 11.7 | R  | 28.5 | MR | 0.4 | R  | 4.8                 | R  | 0.0      | DF | 0.8 | R  | 2.1 | R  | 5.8  | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced Variety trial in South Zone under Unprotected Conditions –Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |       |      |             | Remark      |
|----------------------|-----------------------------------|------|-------|------|-------------|-------------|
|                      | GU                                | RA   | CBE   | WR   | Mean        |             |
| Local Check          | 5.23                              | 1.74 | 6.58  | 7.47 | <b>5.25</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 4.50                              | 4.13 | 6.87  | 9.47 | <b>6.24</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 5.60                              | 2.88 | 9.99  | 7.67 | <b>6.53</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 6.20                              | 1.79 | 10.87 | 8.47 | <b>6.83</b> | <b>BETL</b> |
| WGCV Bt 28           | 4.13                              | 2.11 | 8.94  | 7.53 | <b>5.68</b> | <b>BETL</b> |
| ARCV 99 BGII         | 6.40                              | 3.78 | 9.68  | 8.33 | <b>7.05</b> | <b>BETL</b> |
| ARCV 111 BGII        | 5.17                              | 2.27 | 6.27  | 7.93 | <b>5.41</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions –  
Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                     | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 8.10                                   | 1.53 | 3.87 | 4.87 | <b>4.59</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 7.33                                   | 2.03 | 3.50 | 4.20 | <b>4.27</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 8.58                                   | 1.98 | 3.87 | 2.60 | <b>4.26</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 9.11                                   | 2.77 | 3.70 | 5.27 | <b>5.21</b> | <b>BETL</b> |
| WGCV Bt 28           | 7.83                                   | 2.33 | 4.13 | 3.80 | <b>4.52</b> | <b>BETL</b> |
| ARCV 99 BGII         | 9.05                                   | 2.71 | 8.27 | 4.27 | <b>6.07</b> | <b>AETL</b> |
| ARCV 111 BGII        | 8.67                                   | 1.19 | 3.07 | 4.67 | <b>4.40</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions - JIG**

| Name of Entry        | JIG/plant |    |     |     |      | Remark |
|----------------------|-----------|----|-----|-----|------|--------|
|                      | GU        | RA | CBE | WR  | Mean |        |
| Local Check          | II        | I  | I   | II  | II   |        |
| Lam Bt 2208 BG II    | III       | II | I   | II  | II   |        |
| Suraksha (Non-Bt ZC) | III       | II | I   | III | II   |        |
| CICR 23 Bt (Bt ZC)   | II        | II | I   | III | II   |        |
| WGCV Bt 28           | III       | II | I   | III | II   |        |
| ARCV 99 BGII         | IV        | II | I   | II  | II   |        |
| ARCV 111 BGII        | III       | I  | I   | II  | II   |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark      |
|----------------------|------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                 | RA   | CBE  | WR    | Mean        |             |
| Local Check          | 7.90                               | 4.80 | 2.90 | 14.20 | <b>7.45</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 8.10                               | 2.74 | 3.06 | 14.40 | <b>7.07</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 6.63                               | 3.21 | 2.93 | 12.60 | <b>6.34</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 8.07                               | 3.52 | 3.03 | 12.07 | <b>6.67</b> | <b>BETL</b> |
| WGCV Bt 28           | 7.83                               | 4.32 | 2.03 | 13.73 | <b>6.98</b> | <b>BETL</b> |
| ARCV 99 BGII         | 6.70                               | 1.73 | 2.10 | 10.53 | <b>5.27</b> | <b>BETL</b> |
| ARCV 111 BGII        | 8.30                               | 4.17 | 2.23 | 13.87 | <b>7.14</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                   | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.83                                 | 1.00 | 1.89 | 0.53 | <b>1.06</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 1.03                                 | 0.34 | 1.74 | 0.80 | <b>0.98</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.40                                 | 0.61 | 1.88 | 0.67 | <b>0.89</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 1.30                                 | 0.45 | 1.59 | 0.53 | <b>0.97</b> | <b>BETL</b> |
| WGCV Bt 28           | 0.23                                 | 0.51 | 1.86 | 1.00 | <b>0.90</b> | <b>BETL</b> |
| ARCV 99 BGII         | 1.20                                 | 0.59 | 1.66 | 0.67 | <b>1.03</b> | <b>BETL</b> |
| ARCV 111 BGII        | 1.63                                 | 0.88 | 1.13 | 1.07 | <b>1.18</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |             | Remark |
|----------------------|-----------------------------|------|------|------|-------------|--------|
|                      | GU                          | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.43                        | 1.07 | 0.13 | 0.00 | <b>0.41</b> |        |
| Lam Bt 2208 BG II    | 0.20                        | 1.00 | 0.00 | 0.09 | <b>0.32</b> |        |
| Suraksha (Non-Bt ZC) | 0.10                        | 1.17 | 0.33 | 0.09 | <b>0.42</b> |        |
| CICR 23 Bt (Bt ZC)   | 0.30                        | 1.17 | 0.13 | 0.11 | <b>0.43</b> |        |
| WGCV Bt 28           | 0.17                        | 0.94 | 0.00 | 0.24 | <b>0.34</b> |        |
| ARCV 99 BGII         | 0.23                        | 0.94 | 0.07 | 0.02 | <b>0.32</b> |        |
| ARCV 111 BGII        | 0.13                        | 1.23 | 0.00 | 0.18 | <b>0.39</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



Table: Advanced Variety trial in South Zone under Unprotected Conditions – *Helicoverpa armigera*

| Name of Entry        | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |      |             | Remark |
|----------------------|--------------------------------------------|------|------|------|-------------|--------|
|                      | GU                                         | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.00                                       | 0.16 | 0.07 | 0.00 | <b>0.06</b> | BETL   |
| Lam Bt 2208 BG II    | 0.00                                       | 0.04 | 0.00 | 0.00 | <b>0.01</b> | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                                       | 0.04 | 0.00 | 0.00 | <b>0.01</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                                       | 0.16 | 0.00 | 0.00 | <b>0.04</b> | BETL   |
| WGCV Bt 28           | 0.00                                       | 0.04 | 0.00 | 0.00 | <b>0.01</b> | BETL   |
| ARCV 99 BGII         | 0.00                                       | 0.16 | 0.00 | 0.00 | <b>0.04</b> | BETL   |
| ARCV 111 BGII        | 0.00                                       | 0.04 | 0.00 | 0.00 | <b>0.01</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced Variety trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms

| Name of Entry        | Spotted Bollworms (No./5 Plants) |      |      |      |             | Remark |
|----------------------|----------------------------------|------|------|------|-------------|--------|
|                      | GU                               | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.00                             | 0.08 | 0.00 | 0.00 | <b>0.02</b> | BETL   |
| Lam Bt 2208 BG II    | 0.00                             | 0.10 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| Suraksha (Non-Bt ZC) | 0.00                             | 0.08 | 0.00 | 0.00 | <b>0.02</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.00                             | 0.17 | 0.00 | 0.00 | <b>0.04</b> | BETL   |
| WGCV Bt 28           | 0.00                             | 0.05 | 0.00 | 0.00 | <b>0.01</b> | BETL   |
| ARCV 99 BGII         | 0.00                             | 0.07 | 0.00 | 0.00 | <b>0.02</b> | BETL   |
| ARCV 111 BGII        | 0.00                             | 0.34 | 0.00 | 0.00 | <b>0.08</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

Table: Advanced Variety trial in South Zone under Unprotected Conditions – *Spodoptera litura*

| Name of Entry        | <i>Spodoptera litura</i> (No./5 Plants) |      |      |      |             | Remark |
|----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |        |
| Local Check          | 0.13                                    | 0.41 | 0.00 | 0.00 | <b>0.14</b> | BETL   |
| Lam Bt 2208 BG II    | 0.73                                    | 0.19 | 0.00 | 0.00 | <b>0.23</b> | BETL   |
| Suraksha (Non-Bt ZC) | 0.50                                    | 0.30 | 0.00 | 0.00 | <b>0.20</b> | BETL   |
| CICR 23 Bt (Bt ZC)   | 0.60                                    | 0.53 | 0.00 | 0.00 | <b>0.28</b> | BETL   |
| WGCV Bt 28           | 0.20                                    | 0.86 | 0.67 | 0.00 | <b>0.43</b> | BETL   |
| ARCV 99 BGII         | 0.30                                    | 0.53 | 0.00 | 0.00 | <b>0.21</b> | BETL   |
| ARCV 111 BGII        | 0.53                                    | 0.53 | 0.00 | 0.00 | <b>0.26</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |       |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|-------|-------------|-------------|
|                      | GU                                                      | RA   | CBE  | WR    | Mean        |             |
| Local Check          | 3.50                                                    | 2.00 | 0.33 | 9.33  | <b>3.79</b> | <b>AETL</b> |
| Lam Bt 2208 BG II    | 5.33                                                    | 1.32 | 0.00 | 8.33  | <b>3.75</b> | <b>AETL</b> |
| Suraksha (Non-Bt ZC) | 2.67                                                    | 2.07 | 0.33 | 7.00  | <b>3.02</b> | <b>AETL</b> |
| CICR 23 Bt (Bt ZC)   | 3.33                                                    | 1.46 | 1.00 | 10.33 | <b>4.03</b> | <b>AETL</b> |
| WGCV Bt 28           | 3.17                                                    | 1.96 | 1.33 | 5.67  | <b>3.03</b> | <b>AETL</b> |
| ARCV 99 BGII         | 3.17                                                    | 1.22 | 0.33 | 3.00  | <b>1.93</b> | <b>AETL</b> |
| ARCV 111 BGII        | 4.00                                                    | 2.16 | 0.00 | 7.67  | <b>3.46</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                      | GU                                      | RA   | CBE  | WR   | Mean        |             |
| Local Check          | 0.00                                    | 0.16 | 0.00 | 0.00 | <b>0.04</b> | <b>BETL</b> |
| Lam Bt 2208 BG II    | 0.00                                    | 0.18 | 0.00 | 0.00 | <b>0.05</b> | <b>BETL</b> |
| Suraksha (Non-Bt ZC) | 0.00                                    | 0.14 | 0.00 | 0.00 | <b>0.04</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC)   | 0.00                                    | 0.36 | 0.00 | 0.00 | <b>0.09</b> | <b>BETL</b> |
| WGCV Bt 28           | 0.00                                    | 0.56 | 0.00 | 0.00 | <b>0.14</b> | <b>BETL</b> |
| ARCV 99 BGII         | 0.00                                    | 0.29 | 0.00 | 0.00 | <b>0.07</b> | <b>BETL</b> |
| ARCV 111 BGII        | 0.00                                    | 0.17 | 0.00 | 0.00 | <b>0.04</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark      |
|----------------------|-------------------------------------------------------|------|-------|-------|--------------|-------------|
|                      | GU                                                    | RA   | CBE   | WR    | Mean         |             |
| Local Check          | 28.33                                                 | 4.58 | 15.00 | 46.67 | <b>23.64</b> | <b>AETL</b> |
| Lam Bt 2208 BG II    | 40.00                                                 | 6.42 | 10.00 | 46.67 | <b>25.77</b> | <b>AETL</b> |
| Suraksha (Non-Bt ZC) | 26.67                                                 | 3.66 | 15.00 | 46.67 | <b>23.00</b> | <b>AETL</b> |
| CICR 23 Bt (Bt ZC)   | 25.00                                                 | 3.66 | 35.00 | 53.33 | <b>29.25</b> | <b>AETL</b> |
| WGCV Bt 28           | 26.67                                                 | 4.28 | 30.00 | 40.00 | <b>25.24</b> | <b>AETL</b> |
| ARCV 99 BGII         | 26.67                                                 | 4.62 | 15.00 | 23.33 | <b>17.40</b> | <b>AETL</b> |
| ARCV 111 BGII        | 30.00                                                 | 4.71 | 15.00 | 50.00 | <b>24.93</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |       |              | Remark |
|----------------------|----------------------|-------|-------|-------|--------------|--------|
|                      | GU                   | RA    | CBE   | WR    | Mean         |        |
| Local Check          | 46.55                | 10.82 | 13.14 | 60.00 | <b>32.63</b> |        |
| Lam Bt 2208 BG II    | 62.14                | 9.59  | 12.16 | 45.00 | <b>32.22</b> |        |
| Suraksha (Non-Bt ZC) | 40.63                | 10.88 | 15.30 | 30.00 | <b>24.20</b> |        |
| CICR 23 Bt (Bt ZC)   | 43.75                | 9.72  | 13.82 | 40.00 | <b>26.82</b> |        |
| WGCV Bt 28           | 51.28                | 9.94  | 19.51 | 65.00 | <b>36.43</b> |        |
| ARCV 99 BGII         | 37.16                | 12.25 | 15.85 | 40.00 | <b>26.31</b> |        |
| ARCV 111 BGII        | 44.17                | 7.95  | 18.04 | 35.00 | <b>26.29</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |      |       |              | Remark |
|----------------------|-------------------|------|------|-------|--------------|--------|
|                      | GU                | RA   | CBE  | WR    | Mean         |        |
| Local Check          | 29.36             | 8.51 | 5.21 | 22.00 | <b>16.27</b> |        |
| Lam Bt 2208 BG II    | 38.59             | 7.28 | 6.64 | 18.18 | <b>17.67</b> |        |
| Suraksha (Non-Bt ZC) | 22.17             | 8.57 | 6.71 | 18.81 | <b>14.07</b> |        |
| CICR 23 Bt (Bt ZC)   | 25.20             | 7.41 | 4.97 | 11.82 | <b>12.35</b> |        |
| WGCV Bt 28           | 28.66             | 7.63 | 7.79 | 20.90 | <b>16.25</b> |        |
| ARCV 99 BGII         | 22.68             | 9.94 | 7.04 | 17.82 | <b>14.37</b> |        |
| ARCV 111 BGII        | 25.11             | 5.64 | 8.23 | 14.22 | <b>13.30</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table-9(b) Advanced Evaluation Trial of Hirsutum Varieties - Irrigated (AET-II Variety IRR) under Unprotected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR):Unprotected conditions |    |      |    |      |    |      |    |     |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|-----------------------------|------------------------------------------------------------|----|------|----|------|----|------|----|-----|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                             | RARS, Warangal                                             |    |      |    |      |    |      |    |     |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                             | ALS                                                        |    | CoLS |    | GM   |    | Rust |    | TSV |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                             | PDI                                                        | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 5      | 55161   | Local Check                 | 5.5                                                        | R  | 11.0 | R  | 9.0  | R  | 27.0 | MR | 5.0 | R  | 5.0                 | R  | 0.0      | DF | 0.0 | DF | 3.3 | R  | 6.0  | R  |
| 1      | 55162   | Lam Bt 2208 BG II           | 7.0                                                        | R  | 7.0  | R  | 11.0 | R  | 39.5 | MR | 7.5 | R  | 4.5                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 5.0  | R  |
| 7      | 55163   | Suraksha (Non-Bt ZC)        | 6.5                                                        | R  | 6.5  | R  | 14.0 | R  | 38.5 | MR | 6.3 | R  | 5.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.5  | R  |
| 3      | 55164   | CICR 23 Bt (Bt Zonal Check) | 7.0                                                        | R  | 6.5  | R  | 18.5 | R  | 38.5 | MR | 7.5 | R  | 4.0                 | R  | 0.0      | DF | 2.0 | R  | 3.2 | R  | 3.5  | R  |
| 6      | 55165   | WGCV Bt 28                  | 7.5                                                        | R  | 12.0 | R  | 13.0 | R  | 24.5 | R  | 5.0 | R  | 3.5                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 3.0  | R  |
| 4      | 55166   | ARCV 99 BGII                | 7.0                                                        | R  | 7.0  | R  | 13.5 | R  | 35.5 | MR | 6.3 | R  | 4.5                 | R  | 0.0      | DF | 0.0 | DF | 3.5 | R  | 4.5  | R  |
| 2      | 55167   | ARCV 111 BGII               | 4.0                                                        | R  | 3.0  | R  | 13.5 | R  | 26.5 | MR | 8.8 | R  | 3.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 2.0  | R  |

Table-9(c) Advanced Evaluation Trial of Hirsutum Varieties - Irrigated (AET-II Variety IRR) under Protected and Unprotected conditions

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected<br>Conditions:Lam , Guntur |    |      |    |      |    | Average PDI & Disease Reaction (DR):Un<br>Protected<br>Conditions:Lam , Guntur |    |      |    |      |    |
|--------|---------|-----------------------------|---------------------------------------------------------------------------|----|------|----|------|----|--------------------------------------------------------------------------------|----|------|----|------|----|
|        |         |                             | CoLS                                                                      |    | GM   |    | Rust |    | CoLS                                                                           |    | GM   |    | Rust |    |
|        |         |                             | PDI                                                                       | DR | PDI  | DR | PDI  | DR | PDI                                                                            | DR | PDI  | DR | PDI  | DR |
| 5      | 55161   | Local Check                 | 26.0                                                                      | MR | 27.0 | MR | 26.8 | MR | 28.5                                                                           | MR | 29.3 | MR | 28.8 | MR |
| 1      | 55162   | Lam Bt 2208 BG II           | 28.5                                                                      | MR | 28.8 | MR | 14.2 | R  | 32.7                                                                           | MR | 31.3 | MR | 19.8 | R  |
| 7      | 55163   | Suraksha (Non-Bt ZC)        | 26.0                                                                      | MR | 27.3 | MR | 28.5 | MR | 27.5                                                                           | MR | 29.0 | MR | 30.5 | MR |
| 3      | 55164   | CICR 23 Bt (Bt Zonal Check) | 26.3                                                                      | MR | 26.5 | MR | 10.0 | R  | 27.3                                                                           | MR | 28.3 | MR | 11.8 | R  |
| 6      | 55165   | WGCV Bt 28                  | 28.8                                                                      | MR | 27.0 | MR | 15.8 | R  | 32.3                                                                           | MR | 29.8 | MR | 18.8 | R  |
| 4      | 55166   | ARCV 99 BGII                | 26.3                                                                      | MR | 26.8 | MR | 27.3 | MR | 27.3                                                                           | MR | 30.0 | MR | 29.2 | MR |
| 2      | 55167   | ARCV 111 BGII               | 28.0                                                                      | MR | 28.2 | MR | 8.75 | R  | 30.8                                                                           | MR | 29.8 | MR | 11.8 | R  |

## Agronomic Evaluation

### RAICHUR (ARCV 111 BG II) variety

The results of agronomic requirement studies found that significantly higher seed cotton yield was recorded with 90 x 45 cm spacing (3128 kg/ha) compared to other spacings. (Table 49). The increase in higher seed cotton yield was mainly due to increased number of bolls/sqm (176.5). Among nitrogen levels, higher seed cotton yield was obtained with 125% recommended N/ha (2976 kg/ha) followed by 100% recommended N/ha (2845 kg/ha) compared to 75% recommended N/ha (2687 kg/ha). This could be attributed to higher sympodia/plant, higher boll number/plant and boll weight. The interaction effect was found to be non significant (Table 49)

**Table 49. Total Seed cotton yield (kg/ha) of ARCV 111 BG II as influenced by spacing levels and nutrient levels at Raichur**

| Treatments                              | ARCV 111 BG II    |                      |                    | Mean<br>(N levels) |
|-----------------------------------------|-------------------|----------------------|--------------------|--------------------|
|                                         | S1: 90 x 45<br>cm | S2: 90 cm<br>X 60 cm | S3: 90 x 75<br>cm  |                    |
| F1.75% rec. N/ha (135:90:90 kg NPK/ha)  | 2974              | 2665                 | 2424               | <b>2687</b>        |
| F2.100% rec. N/ha (180:90:90 kg NPK/ha) | 3122              | 2876                 | 2538               | <b>2845</b>        |
| F2.125% rec. N/ha (225:90:90 kg NPK/ha) | 3288              | 3005                 | 2634               | <b>2976</b>        |
| <b>Mean (spacing)</b>                   | <b>3128</b>       | <b>2849</b>          | <b>2532</b>        |                    |
| <b>ANOVA</b>                            | <b>Spacing</b>    | <b>N levels</b>      | <b>Interaction</b> |                    |
| <b>SE d</b>                             | <b>129</b>        | <b>129</b>           | <b>225</b>         |                    |
| <b>CD (5%)</b>                          | <b>277</b>        | <b>NS</b>            | <b>NS</b>          |                    |

Basic parameters: pH: 8.06, OC (%): 0.42, Available N: 328 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 39 kg/ha, Available K<sub>2</sub>O: 358 kg/ha, Recommended nutrients: 180:90:90 kg NPK/ha, Genotype: ARCV 111 BGII, Environment: Irrigated

### RAICHUR (ARCV 99 BG II)

The results of spacing and nutrient requirement studies found that significantly higher seed cotton yield was recorded with 90 x 45 cm spacing (3117 kg/ha) compared to other spacings. The increase in higher seed cotton yield was mainly due to increased number of bolls/sqm (184.9). Among nitrogen levels, higher seed cotton yield was obtained with 125% recommended N/ha (2965 kg/ha) followed by 100% recommended N/ha (2835 kg/ha) compared to 75% recommended N/ha (2678 kg/ha). This could be attributed to higher sympodia/plant, higher boll number/plant and boll weight. Interaction found non-significant by with spacing and nitrogen levels (Table 50).



**Table 50. Total Seed cotton yield (kg/ha) of ARCV 99 BG II as influenced by spacing levels and nutrient levels at Raichur**

| Treatments            | ARCV 99 BG II  |                   |                    | Mean (N levels) |
|-----------------------|----------------|-------------------|--------------------|-----------------|
|                       | S1: 90 x 45 cm | S2: 90 cm X 60 cm | S3: 90 x 75 cm     |                 |
| N1- 75% of RDN        | 2964           | 2655              | 2416               | <b>2678</b>     |
| N2- 100 % of RDN      | 3111           | 2866              | 2529               | <b>2835</b>     |
| N3- 125% of RDN       | 3277           | 2994              | 2625               | <b>2965</b>     |
| <b>Mean (spacing)</b> | <b>3117</b>    | <b>2839</b>       | <b>2523</b>        |                 |
| <b>ANOVA</b>          | <b>Spacing</b> | <b>N levels</b>   | <b>Interaction</b> |                 |
| <b>SE d</b>           | <b>129</b>     | <b>129</b>        | <b>224</b>         |                 |
| <b>CD (5%)</b>        | <b>276</b>     | <b>276</b>        | <b>NS</b>          |                 |

Basic parameters: pH: 8.06, OC (%): 0.42, Available N: 328 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 39 kg/ha, Available K<sub>2</sub>O: 358 kg/ha, Recommended nutrients: 180:90:90 kg NPK/ha, Genotype: ARCV 99 BGII, Environment: Irrigated

#### **RAICHUR (WGCV Bt 28)**

The results of agronomic requirement studies found that significantly higher seed cotton yield was recorded with 90 x 45 cm spacing (2907 kg/ha) compared to other spacings. The increase in higher seed cotton yield was mainly due to increased number of bolls/sqm (198.8). Among nitrogen levels, higher seed cotton yield was obtained with 125% recommended N/ha (2766 kg/ha) followed by 100% recommended N/ha (2644 kg/ha) compared to 75% recommended N/ha (2498 kg/ha). This could be attributed to higher sympodia/plant, higher boll number/plant and boll weight. Interaction effect was found to be non-significant (Table 51).

**Table 51. Total Seed cotton yield (kg/ha) of WGCV Bt 28 as influenced by spacing levels and nutrient levels at Raichur**

| Treatments            | WGCV Bt 28     |                 |                    | Mean (N levels) |
|-----------------------|----------------|-----------------|--------------------|-----------------|
|                       | S1: 90 X 45 cm | S2: 90 X 60 cm  | S3: 90 X 75 cm     |                 |
| N1- 75% of RDN        | 2764           | 2477            | 2253               | 2498            |
| N2- 100 % of RDN      | 2901           | 2673            | 2358               | 2644            |
| N3- 125% of RDN       | 3056           | 2793            | 2448               | 2766            |
| <b>Mean (spacing)</b> | <b>2907</b>    | <b>2648</b>     | <b>2353</b>        |                 |
| <b>ANOVA</b>          | <b>Spacing</b> | <b>N levels</b> | <b>Interaction</b> |                 |
| <b>SE d</b>           | <b>121</b>     | <b>121</b>      | <b>209</b>         |                 |
| <b>CD (5%)</b>        | <b>258</b>     | <b>258</b>      | <b>NS</b>          |                 |

Basic parameters: pH: 8.06, OC (%): 0.42, Available N: 328 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 39 kg/ha, Available K<sub>2</sub>O: 358 kg/ha, Recommended nutrients: 180:90:90 kg NPK/ha, Genotype: WGCV Bt 28, Environment: Irrigated





**RAICHUR (Lam Bt 2208 BG II)**

The results of agronomic requirement studies found that significantly higher seed cotton yield was recorded with 90 x 45 cm spacing (2938 kg/ha) compared to other spacings. The increase in higher seed cotton yield was mainly due to an increased number of bolls/sqm (190.9). Among nitrogen levels, higher seed cotton yield was obtained with 125% recommended N/ha (2795 kg/ha), followed by 100% recommended N/ha (2672 kg/ha), compared to 75% recommended N/ha (2524 kg/ha). This could be attributed to higher sympodia/plant, higher boll number/plant and boll weight. The interaction effect was found to be non-significant (Table 52).

**Table 52. Total Seed cotton yield (kg/ha) of Lam Bt 2208 BG II as influenced by spacing levels and nutrient levels in Raichur**

| Treatments            | Lam Bt 2208 BG II |                 |                    | Mean (N levels) |
|-----------------------|-------------------|-----------------|--------------------|-----------------|
|                       | S1: 90 X 45 cm    | S2: 90 X 60 cm  | S3: 90 X 75 cm     |                 |
| N1- 75% of RDN        | 2793              | 2503            | 2277               | <b>2524</b>     |
| N2- 100 % of RDN      | 2932              | 2701            | 2383               | <b>2672</b>     |
| N3- 125% of RDN       | 3088              | 2822            | 2473               | <b>2795</b>     |
| <b>Mean (spacing)</b> | <b>2938</b>       | <b>2675</b>     | <b>2377</b>        |                 |
| <b>ANOVA</b>          | <b>Spacing</b>    | <b>N levels</b> | <b>Interaction</b> |                 |
| <b>SE d</b>           | <b>122</b>        | <b>122</b>      | <b>211</b>         |                 |
| <b>CD (5%)</b>        | <b>261</b>        | <b>261</b>      | <b>NS</b>          |                 |

Basic parameters: pH: 8.06, OC (%): 0.42, Available N: 328 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 39 kg/ha, Available K<sub>2</sub>O: 358 kg/ha, Recommended nutrients: 180:90:90 kg NPK/ha, Genotype: Lam Bt 2208 BG II, Environment: Irrigated



## Initial Evaluation Trial of Compact Hirsutum Varieties - Irrigated

### *Constitution of Trial*

The trial was constituted with seven Bt cotton varieties containing deregulated events along with two different check varieties as furnished below.

| S. No. | Code-I   | Code -II     | Entries                      | Sponsored by     |
|--------|----------|--------------|------------------------------|------------------|
| 1      | 4        | 55171        | CCH 25-3 Bt II               | CICR, Coimbatore |
| 2      | 9        | 55172        | CCH 25-4 Bt II               | CICR, Coimbatore |
| 3      | 1        | 55173        | CCH 25-1 Bt II               | CICR, Coimbatore |
| 4      | <b>7</b> | <b>55174</b> | <b>CICR 23 Bt (ZC Bt-1)</b>  |                  |
| 5      | 3        | 55175        | Nano Bt                      | CICR, Coimbatore |
| 6      | 8        | 55176        | Subiksha Bt                  | CICR, Coimbatore |
| 7      | <b>2</b> | <b>55177</b> | <b>PKV 081 Bt (ZC Bt-2)*</b> |                  |
| 8      | 6        | 55178        | CCH 25-2 Bt II               | CICR, Coimbatore |
| 9      | 5        | 55179        | Suraksha Bt                  | CICR, Coimbatore |

\* The zonal check variety **PKV 081 Bt (ZC Bt-2)** was not released for the south zone under irrigated conditions and was inadvertently added in the trial. Hence, the data of this check variety was not included in report preparation.

The trial was conducted in five locations viz., Warangal, Lam, Raichur, B'Gudi\*, and Coimbatore.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Recommended spacing for the variety has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 112.4    | 90.0 | 93.9    | 72.7       | <b>92.3</b> |
| 2      | CCH 25-4 Bt II              | 101.4    | 78.7 | 87.1    | 65.4       | <b>83.2</b> |
| 3      | CCH 25-1 Bt II              | 125.3    | 88.3 | 113.5   | 70.3       | <b>99.4</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 131.3    | 83.2 | 91.2    | 74.1       | <b>95.0</b> |
| 5      | Nano Bt                     | 104.7    | 70.0 | 102.5   | 64.1       | <b>85.3</b> |
| 6      | Subiksha Bt                 | 98.5     | 79.5 | 90.2    | 71.6       | <b>85.0</b> |
| 7      | CCH 25-2 Bt II              | 124.9    | 65.5 | 93.9    | 61.4       | <b>86.4</b> |
| 8      | Suraksha Bt                 | 110.7    | 79.5 | 104.7   | 83.1       | <b>94.5</b> |
|        | CD @ 5%                     | 18.7     | NS   | 10.7    | 10.2       |             |
|        | CV %                        | 9.4      | 16.9 | 11.0    | 8.4        |             |

**Number of monopodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|------------|
| 1      | CCH 25-3 Bt II              | 0.3      | 0.1 | 0.3     | 0.2        | <b>0.2</b> |
| 2      | CCH 25-4 Bt II              | 0.5      | 0.1 | 0.2     | 0.5        | <b>0.3</b> |
| 3      | CCH 25-1 Bt II              | 0.3      | 0.1 | 0.7     | 0.0        | <b>0.3</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 0.7      | 0.2 | 0.3     | 0.7        | <b>0.5</b> |
| 5      | Nano Bt                     | 0.2      | 0.2 | 0.7     | 0.2        | <b>0.3</b> |
| 6      | Subiksha Bt                 | 0.7      | 0.1 | 0.5     | 0.1        | <b>0.4</b> |
| 7      | CCH 25-2 Bt II              | 0.3      | 1.1 | 0.3     | 0.2        | <b>0.5</b> |
| 8      | Suraksha Bt                 | 0.9      | 1.1 | 0.3     | 0.5        | <b>0.7</b> |
|        | CD @ 5%                     | NS       | 0.1 | 0.2     | NS         |            |
|        | CV %                        | 69.3     | 8.1 | 18.5    | 129.8      |            |

**Number of sympodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 11.8     | 13.7 | 9.2     | 10.2       | <b>11.2</b> |
| 2      | CCH 25-4 Bt II              | 12.3     | 13.7 | 9.8     | 9.7        | <b>11.4</b> |
| 3      | CCH 25-1 Bt II              | 10.3     | 10.1 | 11.7    | 9.5        | <b>10.4</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 15.9     | 13.9 | 13.5    | 11.8       | <b>13.8</b> |
| 5      | Nano Bt                     | 9.5      | 9.2  | 9.5     | 9.1        | <b>9.3</b>  |
| 6      | Subiksha Bt                 | 11.8     | 11.8 | 11.5    | 10.6       | <b>11.4</b> |
| 7      | CCH 25-2 Bt II              | 11.6     | 6.2  | 8.9     | 8.9        | <b>8.9</b>  |
| 8      | Suraksha Bt                 | 12.1     | 11.9 | 12.0    | 11.3       | <b>11.8</b> |
|        | CD @ 5%                     | 2.8      | 2.5  | 1.6     | 1.4        |             |
|        | CV %                        | 13.6     | 13.4 | 14.5    | 8.1        |             |



**Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|------|---------|------------|------------|
| 1      | CCH 25-3 Bt II              | 4.6      | 4.3  | 6.2     | 5.2        | <b>5.1</b> |
| 2      | CCH 25-4 Bt II              | 5.5      | 5.1  | 7.4     | 6.3        | <b>6.1</b> |
| 3      | CCH 25-1 Bt II              | 5.8      | 5.3  | 7.0     | 6.2        | <b>6.1</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.7      | 4.2  | 5.6     | 4.1        | <b>4.4</b> |
| 5      | Nano Bt                     | 4.0      | 4.4  | 6.3     | 5.5        | <b>5.1</b> |
| 6      | Subiksha Bt                 | 4.3      | 4.1  | 7.0     | 5.2        | <b>5.2</b> |
| 7      | CCH 25-2 Bt II              | 5.1      | 4.3  | 7.9     | 5.9        | <b>5.8</b> |
| 8      | Suraksha Bt                 | 4.2      | 3.9  | 6.0     | 5.1        | <b>4.8</b> |
|        | CD @ 5%                     | 0.5      | NS   | 0.7     | 0.6        |            |
|        | CV %                        | 6.7      | 11.6 | 10.3    | 6.4        |            |

**Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 13.7     | 13.4 | 14.7    | 9.8        | <b>12.9</b> |
| 2      | CCH 25-4 Bt II              | 10.9     | 14.3 | 11.3    | 10.3       | <b>11.7</b> |
| 3      | CCH 25-1 Bt II              | 11.1     | 13.7 | 13.0    | 7.7        | <b>11.4</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 14.7     | 12.3 | 13.0    | 11.4       | <b>12.9</b> |
| 5      | Nano Bt                     | 9.5      | 11.3 | 11.3    | 9.9        | <b>10.5</b> |
| 6      | Subiksha Bt                 | 13.4     | 9.9  | 11.7    | 11.7       | <b>11.7</b> |
| 7      | CCH 25-2 Bt II              | 8.4      | 12.0 | 10.0    | 9.2        | <b>9.9</b>  |
| 8      | Suraksha Bt                 | 14.0     | 8.9  | 14.5    | 11.7       | <b>12.3</b> |
|        | CD @ 5%                     | NS       | 2.9  | 1.5     | NS         |             |
|        | CV %                        | 25.7     | 14.2 | 11.8    | 16.6       |             |

**Number of bolls / sq.m. in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 93.1     | 80.6 | 72.6       | <b>82.1</b> |
| 2      | CCH 25-4 Bt II              | 73.7     | 86.0 | 76.0       | <b>78.6</b> |
| 3      | CCH 25-1 Bt II              | 77.9     | 82.0 | 57.3       | <b>72.4</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 103.7    | 74.0 | 84.4       | <b>87.4</b> |
| 5      | Nano Bt                     | 66.5     | 68.0 | 73.6       | <b>69.4</b> |
| 6      | Subiksha Bt                 | 96.4     | 59.2 | 86.4       | <b>80.7</b> |
| 7      | CCH 25-2 Bt II              | 59.7     | 72.0 | 68.1       | <b>66.6</b> |
| 8      | Suraksha Bt                 | 96.7     | 53.6 | 86.4       | <b>78.9</b> |
|        | CD @ 5%                     | NS       | 17.5 | NS         |             |
|        | CV %                        | 25.8     | 14.2 | 16.6       |             |



**Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|------|---------|------------|------------|
| 1      | CCH 25-3 Bt II              | 4.8      | 4.6  | 5.3     | 6.5        | <b>5.3</b> |
| 2      | CCH 25-4 Bt II              | 5.0      | 6.0  | 5.9     | 6.8        | <b>5.9</b> |
| 3      | CCH 25-1 Bt II              | 7.2      | 6.3  | 7.1     | 8.1        | <b>7.2</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.7      | 4.9  | 4.1     | 4.4        | <b>4.3</b> |
| 5      | Nano Bt                     | 4.9      | 5.9  | 5.9     | 6.8        | <b>5.9</b> |
| 6      | Subiksha Bt                 | 5.1      | 4.8  | 6.0     | 6.2        | <b>5.5</b> |
| 7      | CCH 25-2 Bt II              | 5.8      | 5.8  | 5.9     | 7.0        | <b>6.1</b> |
| 8      | Suraksha Bt                 | 5.4      | 4.7  | 6.1     | 6.8        | <b>5.8</b> |
|        | CD @ 5%                     | 1.0      | 1.1  | 0.4     | 0.7        |            |
|        | CV %                        | 10.6     | 12.4 | 7.7     | 6.6        |            |

**Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 11.5     | 9.3  | 11.2    | 13.0       | <b>11.3</b> |
| 2      | CCH 25-4 Bt II              | 11.9     | 11.0 | 13.1    | 13.0       | <b>12.3</b> |
| 3      | CCH 25-1 Bt II              | 14.4     | 11.7 | 13.8    | 14.7       | <b>13.7</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 9.0      | 9.1  | 9.4     | 10.2       | <b>9.4</b>  |
| 5      | Nano Bt                     | 10.2     | 10.6 | 12.1    | 12.7       | <b>11.4</b> |
| 6      | Subiksha Bt                 | 11.7     | 9.7  | 13.1    | 12.9       | <b>11.9</b> |
| 7      | CCH 25-2 Bt II              | 12.9     | 11.7 | 13.3    | 14.3       | <b>13.1</b> |
| 8      | Suraksha Bt                 | 11.4     | 9.6  | 12.3    | 13.1       | <b>11.6</b> |
|        | CD @ 5%                     | 2.0      | NS   | 0.6     | 1.1        |             |
|        | CV %                        | 10.0     | 14.7 | 5.1     | 4.8        |             |

**Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 29.5     | 33.0 | 32.2    | 33.3       | <b>32.0</b> |
| 2      | CCH 25-4 Bt II              | 29.7     | 35.2 | 31.0    | 34.2       | <b>32.5</b> |
| 3      | CCH 25-1 Bt II              | 33.1     | 35.0 | 34.0    | 35.5       | <b>34.4</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 29.4     | 35.2 | 30.5    | 30.3       | <b>31.4</b> |
| 5      | Nano Bt                     | 32.6     | 35.9 | 32.5    | 34.9       | <b>34.0</b> |
| 6      | Subiksha Bt                 | 30.1     | 33.7 | 31.5    | 32.5       | <b>32.0</b> |
| 7      | CCH 25-2 Bt II              | 30.9     | 33.7 | 30.7    | 32.9       | <b>32.1</b> |
| 8      | Suraksha Bt                 | 32.1     | 32.8 | 33.0    | 34.2       | <b>33.0</b> |
|        | CD @ 5%                     | 2.4      | N/A  | 1.1     | 2.2        |             |
|        | CV %                        | 4.4      | 12.2 | 3.4     | 3.7        |             |



**Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 32.8     | 32.7 | 35.1    | 32.5       | <b>33.3</b> |
| 2      | CCH 25-4 Bt II              | 32.8     | 33.4 | 35.7    | 32.7       | <b>33.7</b> |
| 3      | CCH 25-1 Bt II              | 31.1     | 32.6 | 32.1    | 31.4       | <b>31.8</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 27.3     | 27.4 | 29.4    | 27.6       | <b>27.9</b> |
| 5      | Nano Bt                     | 29.4     | 29.8 | 31.9    | 31.1       | <b>30.6</b> |
| 6      | Subiksha Bt                 | 30.5     | 31.9 | 34.5    | 32.1       | <b>32.3</b> |
| 7      | CCH 25-2 Bt II              | 30.8     | 32.9 | 31.9    | 31.1       | <b>31.7</b> |
| 8      | Suraksha Bt                 | 32.3     | 31.3 | 33.9    | 31.4       | <b>32.2</b> |

**Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 84.0     | 85.0 | 86.0    | 84.0       | <b>84.8</b> |
| 2      | CCH 25-4 Bt II              | 83.0     | 83.0 | 86.0    | 82.5       | <b>83.6</b> |
| 3      | CCH 25-1 Bt II              | 86.0     | 87.0 | 86.0    | 86.5       | <b>86.4</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 81.0     | 82.0 | 85.0    | 82.5       | <b>82.6</b> |
| 5      | Nano Bt                     | 84.0     | 85.0 | 87.0    | 86.4       | <b>85.6</b> |
| 6      | Subiksha Bt                 | 84.0     | 85.0 | 87.0    | 86.1       | <b>85.5</b> |
| 7      | CCH 25-2 Bt II              | 84.0     | 86.0 | 85.0    | 85.3       | <b>85.1</b> |
| 8      | Suraksha Bt                 | 85.0     | 85.0 | 86.0    | 86.3       | <b>85.6</b> |

**Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam | Raichur | Coimbatore | Mean       |
|--------|-----------------------------|----------|-----|---------|------------|------------|
| 1      | CCH 25-3 Bt II              | 3.7      | 3.8 | 3.8     | 3.5        | <b>3.7</b> |
| 2      | CCH 25-4 Bt II              | 3.9      | 4.0 | 3.9     | 3.7        | <b>3.9</b> |
| 3      | CCH 25-1 Bt II              | 4.2      | 4.3 | 4.3     | 4.5        | <b>4.3</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 4.1      | 4.6 | 4.5     | 4.4        | <b>4.4</b> |
| 5      | Nano Bt                     | 3.4      | 4.3 | 3.8     | 3.7        | <b>3.8</b> |
| 6      | Subiksha Bt                 | 3.9      | 4.0 | 4.4     | 3.8        | <b>4.0</b> |
| 7      | CCH 25-2 Bt II              | 3.9      | 3.7 | 3.8     | 3.9        | <b>3.8</b> |
| 8      | Suraksha Bt                 | 4.2      | 4.6 | 4.0     | 4.2        | <b>4.3</b> |



**Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam  | Raichur | Coimbatore | Mean        |
|--------|-----------------------------|----------|------|---------|------------|-------------|
| 1      | CCH 25-3 Bt II              | 32.4     | 31.8 | 29.2    | 30.2       | <b>30.9</b> |
| 2      | CCH 25-4 Bt II              | 32.2     | 33.4 | 31.7    | 30.1       | <b>31.9</b> |
| 3      | CCH 25-1 Bt II              | 31.9     | 34.9 | 31.3    | 29.8       | <b>32.0</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 29.5     | 29.5 | 30.0    | 26.5       | <b>28.9</b> |
| 5      | Nano Bt                     | 31.4     | 33.2 | 31.0    | 30.2       | <b>31.5</b> |
| 6      | Subiksha Bt                 | 32.7     | 36.5 | 34.5    | 33.2       | <b>34.2</b> |
| 7      | CCH 25-2 Bt II              | 32.5     | 33.1 | 30.5    | 31.9       | <b>32.0</b> |
| 8      | Suraksha Bt                 | 31.5     | 31.6 | 34.5    | 31.2       | <b>32.2</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------|
| 1      | CCH 25-3 Bt II              | 11.04    | 10.65 | 28.06      | <b>16.58</b> |
| 2      | CCH 25-4 Bt II              | 5.50     | 14.35 | 28.57      | <b>16.14</b> |
| 3      | CCH 25-1 Bt II              | 4.89     | 15.37 | 22.51      | <b>14.26</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 2.23     | 11.30 | 12.65      | <b>8.73</b>  |
| 5      | Nano Bt                     | 9.06     | 11.84 | 27.92      | <b>16.27</b> |
| 6      | Subiksha Bt                 | 3.98     | 11.85 | 32.54      | <b>16.12</b> |
| 7      | CCH 25-2 Bt II              | 4.62     | 10.19 | 28.49      | <b>14.43</b> |
| 8      | Suraksha Bt                 | 10.10    | 8.08  | 34.09      | <b>17.42</b> |
|        | CD @ 5%                     | 1.83     | 2.38  | 4.70       |              |
|        | CV %                        | 15.08    | 11.66 | 10.18      |              |

**Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam   | Coimbatore | Mean         |
|--------|-----------------------------|----------|-------|------------|--------------|
| 1      | CCH 25-3 Bt II              | 11.36    | 7.99  | 14.16      | <b>11.17</b> |
| 2      | CCH 25-4 Bt II              | 11.29    | 10.76 | 10.14      | <b>10.73</b> |
| 3      | CCH 25-1 Bt II              | 11.29    | 11.53 | 11.79      | <b>11.54</b> |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 7.39     | 8.47  | 18.07      | <b>11.31</b> |
| 5      | Nano Bt                     | 8.15     | 8.88  | 10.00      | <b>9.01</b>  |
| 6      | Subiksha Bt                 | 11.26    | 8.89  | 13.50      | <b>11.22</b> |
| 7      | CCH 25-2 Bt II              | 10.28    | 7.64  | 8.85       | <b>8.92</b>  |
| 8      | Suraksha Bt                 | 11.04    | 6.06  | 12.55      | <b>9.88</b>  |
|        | CD @ 5%                     | 2.13     | 1.79  | 2.20       |              |
|        | CV %                        | 11.76    | 11.69 | 10.53      |              |



**Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Warangal | Lam   | Raichur | Coimbatore | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|----------|-------|---------|------------|--------------|------|-----------------------|
| 1      | CCH 25-3 Bt II              | 22.40    | 18.63 | 37.97   | 42.21      | <b>30.30</b> | 1    | 33.7                  |
| 2      | CCH 25-4 Bt II              | 16.80    | 25.12 | 33.10   | 38.71      | <b>28.43</b> | 4    | 25.4                  |
| 3      | CCH 25-1 Bt II              | 16.18    | 26.90 | 26.71   | 34.30      | <b>26.02</b> | 6    | 14.8                  |
| 4      | <b>CICR 23 Bt (ZC Bt-1)</b> | 9.62     | 19.77 | 30.56   | 30.71      | <b>22.67</b> | 8    | 0.0                   |
| 5      | Nano Bt                     | 17.21    | 20.72 | 33.12   | 37.92      | <b>27.24</b> | 5    | 20.2                  |
| 6      | Subiksha Bt                 | 15.24    | 20.74 | 32.13   | 46.04      | <b>28.54</b> | 3    | 25.9                  |
| 7      | CCH 25-2 Bt II              | 14.90    | 17.82 | 31.49   | 37.34      | <b>25.39</b> | 7    | 12.0                  |
| 8      | Suraksha Bt                 | 21.14    | 14.13 | 37.60   | 46.65      | <b>29.88</b> | 2    | 31.8                  |
|        | CD @ 5%                     | 3.15     | 4.15  | 2.17    | 5.20       |              |      |                       |
|        | CV %                        | 10.43    | 11.61 | 6.56    | 7.84       |              |      |                       |





## Evaluation under Protected Condition for Insect pests Reaction to Insect Pests

**Table: Initial Variety(Compact) trial in South Zone under Protected Conditions -Aphid**

| Name of Entry         | Aphid (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------|-----------------------------------|------|------|------|-------------|-------------|
|                       | GU                                | RA   | CBE  | WR   | Mean        |             |
| CCH 25-3 Bt II        | 1.30                              | 1.15 | 1.54 | 4.42 | <b>2.10</b> | <b>BETL</b> |
| CCH 25-4 Bt II        | 1.37                              | 1.20 | 1.67 | 4.02 | <b>2.07</b> | <b>BETL</b> |
| CCH 25-1 Bt II        | 1.07                              | 1.04 | 2.00 | 3.69 | <b>1.95</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1)  | 0.87                              | 1.35 | 2.01 | 4.87 | <b>2.27</b> | <b>BETL</b> |
| Nano Bt               | 1.13                              | 0.88 | 1.64 | 3.87 | <b>1.88</b> | <b>BETL</b> |
| Subiksha Bt           | 1.83                              | 1.54 | 1.41 | 4.44 | <b>2.31</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2)* | 1.43                              | 0.77 | 1.16 | 4.20 | <b>1.89</b> | <b>BETL</b> |
| CCH 25-2 Bt II        | 1.20                              | 1.05 | 2.30 | 4.20 | <b>2.19</b> | <b>BETL</b> |
| Suraksha Bt           | 1.00                              | 1.14 | 1.35 | 4.64 | <b>2.03</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry         | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                       | GU                                     | RA   | CBE  | WR   | Mean        |             |
| CCH 25-3 Bt II        | 1.80                                   | 1.57 | 0.91 | 1.64 | <b>1.48</b> | <b>BETL</b> |
| CCH 25-4 Bt II        | 2.40                                   | 1.39 | 2.31 | 1.91 | <b>2.00</b> | <b>BETL</b> |
| CCH 25-1 Bt II        | 2.60                                   | 1.62 | 1.40 | 1.71 | <b>1.83</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1)  | 2.13                                   | 1.59 | 1.51 | 1.76 | <b>1.75</b> | <b>BETL</b> |
| Nano Bt               | 1.97                                   | 2.02 | 2.00 | 1.69 | <b>1.92</b> | <b>BETL</b> |
| Subiksha Bt           | 1.73                                   | 1.30 | 1.44 | 2.02 | <b>1.63</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2)* | 2.17                                   | 1.99 | 1.69 | 1.71 | <b>1.89</b> | <b>BETL</b> |
| CCH 25-2 Bt II        | 2.23                                   | 1.39 | 2.00 | 2.13 | <b>1.94</b> | <b>BETL</b> |
| Suraksha Bt           | 2.07                                   | 1.64 | 1.42 | 1.84 | <b>1.74</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – JIG**

| Name of Entry         | JIG/plant |    |     |    |      | Remark |
|-----------------------|-----------|----|-----|----|------|--------|
|                       | GU        | RA | CBE | WR | Mean |        |
| CCH 25-3 Bt II        | I         | I  | I   | I  | I    |        |
| CCH 25-4 Bt II        | I         | I  | I   | II | I    |        |
| CCH 25-1 Bt II        | II        | I  | I   | I  | I    |        |
| CICR 23 Bt (ZC Bt-1)  | I         | I  | I   | I  | I    |        |
| Nano Bt               | I         | I  | I   | I  | I    |        |
| Subiksha Bt           | I         | I  | I   | I  | I    |        |
| PKV 081 Bt (ZC Bt-2)* | I         | I  | I   | I  | I    |        |
| CCH 25-2 Bt II        | I         | I  | I   | I  | I    |        |
| Suraksha Bt           | I         | I  | I   | I  | I    |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Thrips**

| Name of Entry         | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark |
|-----------------------|------------------------------------|------|------|-------|-------------|--------|
|                       | GU                                 | RA   | CBE  | WR    | Mean        |        |
| CCH 25-3 Bt II        | 3.17                               | 1.40 | 0.96 | 8.29  | <b>3.45</b> | BETL   |
| CCH 25-4 Bt II        | 3.40                               | 3.10 | 0.91 | 9.24  | <b>4.16</b> | BETL   |
| CCH 25-1 Bt II        | 3.93                               | 1.70 | 0.83 | 9.91  | <b>4.09</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 3.93                               | 2.72 | 0.92 | 10.24 | <b>4.45</b> | BETL   |
| Nano Bt               | 4.27                               | 1.83 | 0.94 | 10.47 | <b>4.38</b> | BETL   |
| Subiksha Bt           | 4.43                               | 1.06 | 1.14 | 8.00  | <b>3.66</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 4.03                               | 1.31 | 0.85 | 10.20 | <b>4.10</b> | BETL   |
| CCH 25-2 Bt II        | 4.97                               | 2.15 | 1.15 | 9.47  | <b>4.43</b> | BETL   |
| Suraksha Bt           | 3.53                               | 2.30 | 0.84 | 7.07  | <b>3.44</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry         | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|-----------------------|--------------------------------------|------|------|------|-------------|--------|
|                       | GU                                   | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.10                                 | 0.70 | 0.63 | 0.47 | <b>0.47</b> | BETL   |
| CCH 25-4 Bt II        | 0.00                                 | 0.65 | 0.78 | 0.36 | <b>0.45</b> | BETL   |
| CCH 25-1 Bt II        | 0.03                                 | 0.59 | 0.88 | 0.33 | <b>0.46</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.07                                 | 0.73 | 0.71 | 0.53 | <b>0.51</b> | BETL   |
| Nano Bt               | 0.03                                 | 0.59 | 0.91 | 0.71 | <b>0.56</b> | BETL   |
| Subiksha Bt           | 0.00                                 | 0.69 | 0.72 | 0.58 | <b>0.50</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.00                                 | 0.64 | 0.73 | 0.64 | <b>0.50</b> | BETL   |
| CCH 25-2 Bt II        | 0.03                                 | 0.66 | 1.04 | 0.71 | <b>0.61</b> | BETL   |
| Suraksha Bt           | 0.00                                 | 0.64 | 0.64 | 0.62 | <b>0.47</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry         | Natural Enemies (No. / plant) |      |      |      |             | Remark |
|-----------------------|-------------------------------|------|------|------|-------------|--------|
|                       | GU                            | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.27                          | 1.03 | 0.22 | 0.13 | <b>0.41</b> |        |
| CCH 25-4 Bt II        | 0.07                          | 0.78 | 0.11 | 0.13 | <b>0.27</b> |        |
| CCH 25-1 Bt II        | 0.20                          | 0.74 | 0.16 | 0.07 | <b>0.29</b> |        |
| CICR 23 Bt (ZC Bt-1)  | 0.23                          | 1.19 | 0.13 | 0.13 | <b>0.42</b> |        |
| Nano Bt               | 0.13                          | 0.65 | 0.11 | 0.09 | <b>0.25</b> |        |
| Subiksha Bt           | 0.03                          | 1.33 | 0.11 | 0.13 | <b>0.40</b> |        |
| PKV 081 Bt (ZC Bt-2)* | 0.30                          | 1.59 | 0.07 | 0.07 | <b>0.51</b> |        |
| CCH 25-2 Bt II        | 0.10                          | 1.21 | 0.13 | 0.07 | <b>0.38</b> |        |
| Suraksha Bt           | 0.07                          | 0.68 | 0.16 | 0.09 | <b>0.25</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions– *Helicoverpa armigera***

| Name of Entry         | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |             | Remark |
|-----------------------|---------------------------------------------|------|------|------|-------------|--------|
|                       | GU                                          | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-4 Bt II        | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-1 Bt II        | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Nano Bt               | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Subiksha Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-2 Bt II        | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry         | Spotted Bollworms (No. /5 plants) |      |      |      |             | Remark |
|-----------------------|-----------------------------------|------|------|------|-------------|--------|
|                       | GU                                | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-4 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-1 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Nano Bt               | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Subiksha Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-2 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry         | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |             | Remark |
|-----------------------|------------------------------------------|------|------|------|-------------|--------|
|                       | GU                                       | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.10                                     | 0.00 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| CCH 25-4 Bt II        | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | BETL   |
| CCH 25-1 Bt II        | 0.00                                     | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.03                                     | 0.00 | 0.00 | 0.00 | <b>0.01</b> | BETL   |
| Nano Bt               | 0.23                                     | 0.00 | 0.00 | 0.00 | <b>0.06</b> | BETL   |
| Subiksha Bt           | 0.00                                     | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.10                                     | 0.00 | 0.00 | 0.00 | <b>0.03</b> | BETL   |
| CCH 25-2 Bt II        | 0.07                                     | 0.00 | 0.00 | 0.00 | <b>0.02</b> | BETL   |
| Suraksha Bt           | 0.03                                     | 0.00 | 0.00 | 0.00 | <b>0.01</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Pink bollworm**

| Name of Entry         | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |      |             | Remark |
|-----------------------|---------------------------------------------------------|------|------|------|-------------|--------|
|                       | GU                                                      | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.50                                                    | 0.39 | 0.56 | 1.56 | <b>0.75</b> | BETL   |
| CCH 25-4 Bt II        | 0.83                                                    | 1.05 | 0.33 | 1.44 | <b>0.92</b> | BETL   |
| CCH 25-1 Bt II        | 0.67                                                    | 0.19 | 0.56 | 2.00 | <b>0.85</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.83                                                    | 0.84 | 0.44 | 2.00 | <b>1.03</b> | AETL   |
| Nano Bt               | 0.33                                                    | 0.32 | 0.22 | 2.33 | <b>0.80</b> | BETL   |
| Subiksha Bt           | 1.00                                                    | 0.91 | 0.33 | 2.89 | <b>1.28</b> | AETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.67                                                    | 0.57 | 0.22 | 1.33 | <b>0.70</b> | BETL   |
| CCH 25-2 Bt II        | 0.83                                                    | 0.77 | 0.33 | 1.67 | <b>0.90</b> | BETL   |
| Suraksha Bt           | 0.83                                                    | 0.79 | 0.78 | 1.78 | <b>1.05</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Green Boll damage due to ABW/SBW/TC**

| Name of Entry         | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark |
|-----------------------|-----------------------------------------|------|------|------|-------------|--------|
|                       | GU                                      | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-4 Bt II        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-1 Bt II        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Nano Bt               | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Subiksha Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-2 Bt II        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions –Green Boll damage (Pink bollworm)**

| Name of Entry         | Green Boll Damage (%)/ 10 bolls destructive sampling |      |       |       |              | Remark |
|-----------------------|------------------------------------------------------|------|-------|-------|--------------|--------|
|                       | GU                                                   | RA   | CBE   | WR    | Mean         |        |
| CCH 25-3 Bt II        | 8.33                                                 | 0.54 | 3.34  | 12.22 | <b>6.11</b>  | BETL   |
| CCH 25-4 Bt II        | 8.33                                                 | 1.54 | 8.33  | 12.22 | <b>7.61</b>  | BETL   |
| CCH 25-1 Bt II        | 8.33                                                 | 0.43 | 13.33 | 11.11 | <b>8.30</b>  | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 6.67                                                 | 1.47 | 6.67  | 12.22 | <b>6.75</b>  | BETL   |
| Nano Bt               | 6.67                                                 | 0.79 | 6.67  | 13.33 | <b>6.86</b>  | BETL   |
| Subiksha Bt           | 10.00                                                | 0.48 | 13.33 | 17.78 | <b>10.40</b> | AETL   |
| PKV 081 Bt (ZC Bt-2)* | 8.50                                                 | 0.75 | 8.33  | 8.89  | <b>6.62</b>  | BETL   |
| CCH 25-2 Bt II        | 6.67                                                 | 1.54 | 18.33 | 13.33 | <b>9.97</b>  | BETL   |
| Suraksha Bt           | 11.67                                                | 1.72 | 18.33 | 11.11 | <b>10.71</b> | AETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry         | Open Boll Damage (%) |      |       |       |              | Remark |
|-----------------------|----------------------|------|-------|-------|--------------|--------|
|                       | GU                   | RA   | CBE   | WR    | Mean         |        |
| CCH 25-3 Bt II        | 7.36                 | 0.82 | 14.24 | 26.67 | <b>12.27</b> |        |
| CCH 25-4 Bt II        | 8.84                 | 2.33 | 16.61 | 23.33 | <b>12.78</b> |        |
| CCH 25-1 Bt II        | 7.65                 | 0.65 | 18.34 | 36.67 | <b>15.83</b> |        |
| CICR 23 Bt (ZC Bt-1)  | 6.63                 | 2.21 | 13.45 | 23.33 | <b>11.41</b> |        |
| Nano Bt               | 7.05                 | 1.19 | 12.45 | 20.00 | <b>10.17</b> |        |
| Subiksha Bt           | 9.21                 | 0.73 | 13.37 | 16.67 | <b>9.99</b>  |        |
| PKV 081 Bt (ZC Bt-2)* | 7.39                 | 1.13 | 9.15  | 16.67 | <b>8.58</b>  |        |
| CCH 25-2 Bt II        | 6.17                 | 2.33 | 19.01 | 28.33 | <b>13.96</b> |        |
| Suraksha Bt           | 9.54                 | 2.60 | 15.18 | 26.67 | <b>13.50</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry         | Locule Damage (%) |      |      |       |             | Remark |
|-----------------------|-------------------|------|------|-------|-------------|--------|
|                       | GU                | RA   | CBE  | WR    | Mean        |        |
| CCH 25-3 Bt II        | 2.63              | 0.83 | 5.42 | 10.26 | <b>4.78</b> |        |
| CCH 25-4 Bt II        | 3.14              | 2.35 | 5.67 | 9.22  | <b>5.09</b> |        |
| CCH 25-1 Bt II        | 2.71              | 0.65 | 6.44 | 11.05 | <b>5.21</b> |        |
| CICR 23 Bt (ZC Bt-1)  | 2.59              | 2.23 | 5.78 | 7.40  | <b>4.50</b> |        |
| Nano Bt               | 3.00              | 1.20 | 4.31 | 8.49  | <b>4.25</b> |        |
| Subiksha Bt           | 4.05              | 0.74 | 4.53 | 7.92  | <b>4.31</b> |        |
| PKV 081 Bt (ZC Bt-2)* | 2.66              | 1.14 | 3.57 | 6.81  | <b>3.54</b> |        |
| CCH 25-2 Bt II        | 2.18              | 2.35 | 5.92 | 7.30  | <b>4.44</b> |        |
| Suraksha Bt           | 4.27              | 2.62 | 6.14 | 5.91  | <b>4.74</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry         | Number of sprays for Insect- pests |      |      |      |             | Remark |
|-----------------------|------------------------------------|------|------|------|-------------|--------|
|                       | GU                                 | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CCH 25-4 Bt II        | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CCH 25-1 Bt II        | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CICR 23 Bt (ZC Bt-1)  | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Nano Bt               | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Subiksha Bt           | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| PKV 081 Bt (ZC Bt-2)* | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| CCH 25-2 Bt II        | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |
| Suraksha Bt           | 5.00                               | 4.00 | 4.00 | 5.00 | <b>4.50</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table- 10 (a) Initial Evaluation Trial of Compact Hirsutum Varieties – Irrigated (IET-Compact Variety IRR) Under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |     |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|-----|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | RARS, Warangal                                            |    |      |    |      |    |      |    |     |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | ALS                                                       |    | CoLS |    | GM   |    | Rust |    | TSV |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 4      | 55171   | CCH 25-3 Bt II       | 2.8                                                       | R  | 3.5  | R  | 12.7 | R  | 27.0 | MR | 3.5 | R  | 6.3                 | R  | 0.0      | DF | 0.0 | DF | 1.9 | R  | 6.5  | R  |
| 9      | 55172   | CCH 25-4 Bt II       | 3.2                                                       | R  | 4.2  | R  | 13.2 | R  | 26.7 | MR | 1.5 | R  | 6.3                 | R  | 0.0      | DF | 0.0 | DF | 0.6 | R  | 6.8  | R  |
| 1      | 55173   | CCH 25-1 Bt II       | 3.0                                                       | R  | 4.2  | R  | 11.5 | R  | 27.3 | MR | 1.0 | R  | 5.8                 | R  | 0.0      | DF | 0.0 | DF | 0.2 | R  | 6.0  | R  |
| 7      | 55174   | CICR 23 Bt (ZC Bt-1) | 2.3                                                       | R  | 3.8  | R  | 12.2 | R  | 26.7 | MR | 1.4 | R  | 6.3                 | R  | 0.0      | DF | 0.0 | DF | 0.6 | R  | 6.3  | R  |
| 3      | 55175   | Nano Bt              | 2.8                                                       | R  | 3.5  | R  | 12.3 | R  | 27.0 | MR | 1.9 | R  | 5.3                 | R  | 0.0      | DF | 0.0 | DF | 0.7 | R  | 5.8  | R  |
| 8      | 55176   | Subiksha Bt          | 3.0                                                       | R  | 4.5  | R  | 12.2 | R  | 26.8 | MR | 1.6 | R  | 6.8                 | R  | 0.0      | DF | 0.0 | DF | 0.9 | R  | 7.3  | R  |
| 2      | 55177   | PKV 081 Bt (ZC Bt-2) | 2.7                                                       | R  | 3.7  | R  | 12.0 | R  | 27.0 | MR | 1.3 | R  | 6.2                 | R  | 0.0      | DF | 0.0 | DF | 0.4 | R  | 7.2  | R  |
| 6      | 55178   | CCH 25-2 Bt II       | 3.2                                                       | R  | 3.8  | R  | 12.3 | R  | 27.7 | MR | 0.9 | R  | 5.3                 | R  | 0.0      | DF | 0.0 | DF | 0.6 | R  | 4.8  | R  |
| 5      | 55179   | Suraksha Bt          | 2.8                                                       | R  | 3.8  | R  | 11.0 | R  | 26.8 | MR | 1.5 | R  | 5.8                 | R  | 0.0      | DF | 0.0 | DF | 0.9 | R  | 5.7  | R  |

## Evaluation under Unprotected Condition for Insect pests

### Reaction to Insect Pests

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry         | Aphid (Average of 3 leaves/plant) |      |       |      |             | Remark      |
|-----------------------|-----------------------------------|------|-------|------|-------------|-------------|
|                       | GU                                | RA   | CBE   | WR   | Mean        |             |
| CCH 25-3 Bt II        | 5.30                              | 3.83 | 7.46  | 8.67 | <b>6.31</b> | <b>BETL</b> |
| CCH 25-4 Bt II        | 6.03                              | 3.87 | 4.92  | 6.33 | <b>5.29</b> | <b>BETL</b> |
| CCH 25-1 Bt II        | 4.43                              | 3.72 | 8.46  | 6.93 | <b>5.88</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1)  | 7.10                              | 3.74 | 10.68 | 7.47 | <b>7.25</b> | <b>BETL</b> |
| Nano Bt               | 5.60                              | 3.56 | 9.70  | 6.27 | <b>6.28</b> | <b>BETL</b> |
| Subiksha Bt           | 7.03                              | 4.21 | 6.53  | 8.00 | <b>6.44</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2)* | 5.23                              | 3.86 | 8.07  | 7.13 | <b>6.07</b> | <b>BETL</b> |
| CCH 25-2 Bt II        | 8.57                              | 3.73 | 5.07  | 8.07 | <b>6.36</b> | <b>BETL</b> |
| Suraksha Bt           | 5.40                              | 3.63 | 5.19  | 9.73 | <b>5.99</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions - Leafhopper**

| Name of Entry         | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------|----------------------------------------|------|------|------|-------------|-------------|
|                       | GU                                     | RA   | CBE  | WR   | Mean        |             |
| CCH 25-3 Bt II        | 10.70                                  | 3.74 | 4.87 | 4.00 | <b>5.83</b> | <b>BETL</b> |
| CCH 25-4 Bt II        | 10.83                                  | 3.56 | 4.80 | 4.53 | <b>5.93</b> | <b>BETL</b> |
| CCH 25-1 Bt II        | 8.90                                   | 3.78 | 4.20 | 3.47 | <b>5.09</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1)  | 10.23                                  | 3.76 | 3.27 | 2.87 | <b>5.03</b> | <b>BETL</b> |
| Nano Bt               | 11.80                                  | 4.19 | 3.43 | 3.00 | <b>5.61</b> | <b>BETL</b> |
| Subiksha Bt           | 9.80                                   | 3.47 | 6.33 | 3.60 | <b>5.80</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2)* | 8.13                                   | 4.15 | 2.97 | 3.47 | <b>4.68</b> | <b>BETL</b> |
| CCH 25-2 Bt II        | 9.03                                   | 3.56 | 4.60 | 4.93 | <b>5.53</b> | <b>BETL</b> |
| Suraksha Bt           | 9.53                                   | 3.81 | 4.43 | 3.93 | <b>5.43</b> | <b>BETL</b> |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry         | JIG/plant |    |     |     |      | Remark |
|-----------------------|-----------|----|-----|-----|------|--------|
|                       | GU        | RA | CBE | WR  | Mean |        |
| CCH 25-3 Bt II        | II        | I  | I   | II  | II   |        |
| CCH 25-4 Bt II        | III       | I  | I   | III | II   |        |
| CCH 25-1 Bt II        | III       | II | I   | II  | II   |        |
| CICR 23 Bt (ZC Bt-1)  | II        | I  | I   | II  | II   |        |
| Nano Bt               | III       | II | I   | II  | II   |        |
| Subiksha Bt           | III       | I  | II  | II  | II   |        |
| PKV 081 Bt (ZC Bt-2)* | II        | II | I   | II  | II   |        |
| CCH 25-2 Bt II        | III       | I  | I   | II  | II   |        |
| Suraksha Bt           | III       | II | I   | II  | II   |        |

**GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal**



**Table: Initial Variety(Compact) trial in South Zone under Unprotected Conditions –  
Thrips**

| Name of Entry         | Thrips (Average of 3 leaves/plant) |      |      |       |             | Remark |
|-----------------------|------------------------------------|------|------|-------|-------------|--------|
|                       | GU                                 | RA   | CBE  | WR    | Mean        |        |
| CCH 25-3 Bt II        | 8.60                               | 5.95 | 3.63 | 13.73 | <b>7.98</b> | BETL   |
| CCH 25-4 Bt II        | 7.70                               | 7.15 | 2.77 | 14.13 | <b>7.94</b> | BETL   |
| CCH 25-1 Bt II        | 5.70                               | 6.60 | 2.67 | 11.33 | <b>6.57</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 8.30                               | 6.77 | 3.33 | 11.47 | <b>7.47</b> | BETL   |
| Nano Bt               | 8.27                               | 5.88 | 2.80 | 14.00 | <b>7.74</b> | BETL   |
| Subiksha Bt           | 7.80                               | 5.59 | 2.93 | 11.00 | <b>6.83</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 6.73                               | 5.36 | 2.47 | 12.40 | <b>6.74</b> | BETL   |
| CCH 25-2 Bt II        | 7.50                               | 5.50 | 1.77 | 13.27 | <b>7.01</b> | BETL   |
| Suraksha Bt           | 8.43                               | 6.35 | 3.63 | 9.87  | <b>7.07</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact)trial in South Zone under Unprotected Conditions –  
Whitefly**

| Name of Entry         | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|-----------------------|--------------------------------------|------|------|------|-------------|--------|
|                       | GU                                   | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 1.57                                 | 1.18 | 1.90 | 0.67 | <b>1.33</b> | BETL   |
| CCH 25-4 Bt II        | 1.43                                 | 1.10 | 2.73 | 0.47 | <b>1.43</b> | BETL   |
| CCH 25-1 Bt II        | 0.40                                 | 1.04 | 2.40 | 0.80 | <b>1.16</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 1.67                                 | 1.18 | 1.33 | 1.20 | <b>1.34</b> | BETL   |
| Nano Bt               | 0.90                                 | 1.06 | 1.80 | 0.53 | <b>1.07</b> | BETL   |
| Subiksha Bt           | 1.47                                 | 1.16 | 1.47 | 1.07 | <b>1.29</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.63                                 | 1.14 | 1.33 | 0.67 | <b>0.94</b> | BETL   |
| CCH 25-2 Bt II        | 0.83                                 | 1.15 | 1.13 | 0.93 | <b>1.01</b> | BETL   |
| Suraksha Bt           | 1.50                                 | 1.13 | 0.50 | 0.73 | <b>0.97</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions –  
Natural Enemies**

| Name of Entry         | Natural Enemies (No. / plant) |      |      |      |             | Remark |
|-----------------------|-------------------------------|------|------|------|-------------|--------|
|                       | GU                            | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.33                          | 1.38 | 0.07 | 0.09 | <b>0.47</b> |        |
| CCH 25-4 Bt II        | 0.40                          | 1.15 | 0.20 | 0.22 | <b>0.49</b> |        |
| CCH 25-1 Bt II        | 0.13                          | 1.09 | 0.07 | 0.11 | <b>0.35</b> |        |
| CICR 23 Bt (ZC Bt-1)  | 0.27                          | 1.53 | 0.40 | 0.24 | <b>0.61</b> |        |
| Nano Bt               | 0.17                          | 1.00 | 0.00 | 0.11 | <b>0.32</b> |        |
| Subiksha Bt           | 0.10                          | 1.68 | 0.00 | 0.18 | <b>0.49</b> |        |
| PKV 081 Bt (ZC Bt-2)* | 0.30                          | 1.94 | 0.00 | 0.07 | <b>0.58</b> |        |
| CCH 25-2 Bt II        | 0.10                          | 1.60 | 0.00 | 0.00 | <b>0.43</b> |        |
| Suraksha Bt           | 0.23                          | 1.04 | 0.47 | 0.09 | <b>0.46</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal





**Table: Initial Variety trial (Compact) in South Zone under Protected Conditions– *Helicoverpa armigera***

| Name of Entry         | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |             | Remark |
|-----------------------|---------------------------------------------|------|------|------|-------------|--------|
|                       | GU                                          | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.00                                        | 0.00 | 0.07 | 0.00 | <b>0.02</b> | BETL   |
| CCH 25-4 Bt II        | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-1 Bt II        | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Nano Bt               | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Subiksha Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-2 Bt II        | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha Bt           | 0.00                                        | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety trial (Compact) in South Zone under Unprotected Conditions- Spotted/Spiny Bollworms**

| Name of Entry         | Spotted Bollworms (No. /5 plants) |      |      |      |             | Remark |
|-----------------------|-----------------------------------|------|------|------|-------------|--------|
|                       | GU                                | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-4 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-1 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Nano Bt               | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Subiksha Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| CCH 25-2 Bt II        | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |
| Suraksha Bt           | 0.00                              | 0.00 | 0.00 | 0.00 | <b>0.00</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry         | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |             | Remark |
|-----------------------|------------------------------------------|------|------|------|-------------|--------|
|                       | GU                                       | RA   | CBE  | WR   | Mean        |        |
| CCH 25-3 Bt II        | 0.43                                     | 0.40 | 0.00 | 0.00 | <b>0.21</b> | BETL   |
| CCH 25-4 Bt II        | 0.50                                     | 0.29 | 0.00 | 0.00 | <b>0.20</b> | BETL   |
| CCH 25-1 Bt II        | 0.53                                     | 0.18 | 0.00 | 0.00 | <b>0.18</b> | BETL   |
| CICR 23 Bt (ZC Bt-1)  | 0.17                                     | 0.51 | 0.00 | 0.00 | <b>0.17</b> | BETL   |
| Nano Bt               | 0.80                                     | 0.85 | 0.00 | 0.00 | <b>0.41</b> | BETL   |
| Subiksha Bt           | 0.27                                     | 0.51 | 0.00 | 0.00 | <b>0.20</b> | BETL   |
| PKV 081 Bt (ZC Bt-2)* | 0.57                                     | 0.29 | 0.00 | 0.00 | <b>0.21</b> | BETL   |
| CCH 25-2 Bt II        | 0.53                                     | 0.51 | 0.00 | 0.00 | <b>0.26</b> | BETL   |
| Suraksha Bt           | 0.53                                     | 0.51 | 0.00 | 0.00 | <b>0.26</b> | BETL   |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry         | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |       |             | Remark      |
|-----------------------|---------------------------------------------------------|------|------|-------|-------------|-------------|
|                       | GU                                                      | RA   | CBE  | WR    | Mean        |             |
| CCH 25-3 Bt II        | 3.17                                                    | 2.42 | 0.67 | 10.67 | <b>4.23</b> | <b>AETL</b> |
| CCH 25-4 Bt II        | 3.67                                                    | 2.61 | 0.33 | 7.67  | <b>3.57</b> | <b>AETL</b> |
| CCH 25-1 Bt II        | 4.17                                                    | 1.84 | 1.67 | 10.00 | <b>4.42</b> | <b>AETL</b> |
| CICR 23 Bt (ZC Bt-1)  | 2.33                                                    | 2.01 | 0.33 | 8.33  | <b>3.25</b> | <b>AETL</b> |
| Nano Bt               | 4.00                                                    | 1.80 | 1.00 | 8.67  | <b>3.87</b> | <b>AETL</b> |
| Subiksha Bt           | 5.00                                                    | 2.18 | 0.67 | 7.00  | <b>3.71</b> | <b>AETL</b> |
| PKV 081 Bt (ZC Bt-2)* | 4.83                                                    | 2.10 | 0.33 | 7.00  | <b>3.57</b> | <b>AETL</b> |
| CCH 25-2 Bt II        | 4.50                                                    | 1.99 | 1.33 | 8.00  | <b>3.96</b> | <b>AETL</b> |
| Suraksha Bt           | 4.00                                                    | 1.84 | 1.00 | 8.00  | <b>3.71</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry         | Green Boll Damage (%) due to ABW/SBW/TC |      |      |      |             | Remark      |
|-----------------------|-----------------------------------------|------|------|------|-------------|-------------|
|                       | GU                                      | RA   | CBE  | WR   | Mean        |             |
| CCH 25-3 Bt II        | 0.00                                    | 0.11 | 0.00 | 0.00 | <b>0.03</b> | <b>BETL</b> |
| CCH 25-4 Bt II        | 0.00                                    | 0.48 | 0.00 | 0.00 | <b>0.12</b> | <b>BETL</b> |
| CCH 25-1 Bt II        | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1)  | 0.00                                    | 0.37 | 0.00 | 0.00 | <b>0.09</b> | <b>BETL</b> |
| Nano Bt               | 0.00                                    | 0.04 | 0.00 | 0.00 | <b>0.01</b> | <b>BETL</b> |
| Subiksha Bt           | 0.00                                    | 0.00 | 0.00 | 0.00 | <b>0.00</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2)* | 0.00                                    | 0.09 | 0.00 | 0.00 | <b>0.02</b> | <b>BETL</b> |
| CCH 25-2 Bt II        | 0.00                                    | 0.37 | 0.00 | 0.00 | <b>0.09</b> | <b>BETL</b> |
| Suraksha Bt           | 0.00                                    | 0.59 | 0.00 | 0.00 | <b>0.15</b> | <b>BETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry         | Green Boll Damage (%) / 10 bolls destructive sampling |      |       |       |              | Remark      |
|-----------------------|-------------------------------------------------------|------|-------|-------|--------------|-------------|
|                       | GU                                                    | RA   | CBE   | WR    | Mean         |             |
| CCH 25-3 Bt II        | 26.67                                                 | 3.93 | 10.00 | 56.67 | <b>24.32</b> | <b>AETL</b> |
| CCH 25-4 Bt II        | 30.00                                                 | 5.26 | 10.50 | 46.67 | <b>23.11</b> | <b>AETL</b> |
| CCH 25-1 Bt II        | 30.00                                                 | 3.77 | 16.00 | 56.67 | <b>26.61</b> | <b>AETL</b> |
| CICR 23 Bt (ZC Bt-1)  | 20.00                                                 | 5.14 | 10.00 | 43.33 | <b>19.62</b> | <b>AETL</b> |
| Nano Bt               | 33.33                                                 | 3.78 | 20.00 | 46.67 | <b>25.94</b> | <b>AETL</b> |
| Subiksha Bt           | 43.33                                                 | 3.78 | 16.00 | 40.00 | <b>25.78</b> | <b>AETL</b> |
| PKV 081 Bt (ZC Bt-2)* | 38.33                                                 | 4.59 | 15.00 | 40.00 | <b>24.48</b> | <b>AETL</b> |
| CCH 25-2 Bt II        | 35.00                                                 | 5.03 | 21.00 | 46.67 | <b>26.92</b> | <b>AETL</b> |
| Suraksha Bt           | 30.00                                                 | 6.80 | 20.50 | 46.67 | <b>25.99</b> | <b>AETL</b> |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry         | Open Boll Damage (%) |       |       |       |              | Remark |
|-----------------------|----------------------|-------|-------|-------|--------------|--------|
|                       | GU                   | RA    | CBE   | WR    | Mean         |        |
| CCH 25-3 Bt II        | 60.11                | 11.36 | 19.45 | 50.00 | <b>35.23</b> |        |
| CCH 25-4 Bt II        | 46.85                | 20.77 | 17.61 | 45.00 | <b>32.56</b> |        |
| CCH 25-1 Bt II        | 52.17                | 13.00 | 25.10 | 60.00 | <b>37.57</b> |        |
| CICR 23 Bt (ZC Bt-1)  | 40.21                | 19.82 | 17.10 | 45.00 | <b>30.53</b> |        |
| Nano Bt               | 51.36                | 15.01 | 17.52 | 35.00 | <b>29.72</b> |        |
| Subiksha Bt           | 63.18                | 12.25 | 18.13 | 35.00 | <b>32.14</b> |        |
| PKV 081 Bt (ZC Bt-2)* | 45.66                | 11.79 | 16.44 | 30.00 | <b>25.97</b> |        |
| CCH 25-2 Bt II        | 50.50                | 19.82 | 19.52 | 60.00 | <b>37.46</b> |        |
| Suraksha Bt           | 41.82                | 15.87 | 14.79 | 50.00 | <b>30.62</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry         | Locule Damage (%) |       |       |       |              | Remark |
|-----------------------|-------------------|-------|-------|-------|--------------|--------|
|                       | GU                | RA    | CBE   | WR    | Mean         |        |
| CCH 25-3 Bt II        | 40.25             | 9.25  | 7.41  | 22.34 | <b>19.81</b> |        |
| CCH 25-4 Bt II        | 29.64             | 18.66 | 8.62  | 16.75 | <b>18.42</b> |        |
| CCH 25-1 Bt II        | 44.62             | 10.90 | 10.41 | 16.49 | <b>20.60</b> |        |
| CICR 23 Bt (ZC Bt-1)  | 28.31             | 17.72 | 7.22  | 15.50 | <b>17.19</b> |        |
| Nano Bt               | 34.20             | 12.91 | 6.67  | 13.00 | <b>16.70</b> |        |
| Subiksha Bt           | 37.67             | 10.14 | 6.68  | 18.32 | <b>18.20</b> |        |
| PKV 081 Bt (ZC Bt-2)* | 28.31             | 9.69  | 5.82  | 16.97 | <b>15.20</b> |        |
| CCH 25-2 Bt II        | 30.13             | 17.72 | 5.60  | 20.51 | <b>18.49</b> |        |
| Suraksha Bt           | 33.75             | 13.77 | 4.52  | 16.08 | <b>17.03</b> |        |

GU- Lam Guntur, RA- Raichur, CBE-Coimbatore, WR- Warangal



## Reaction to Diseases

**Table- 10 (b) Initial Evaluation Trial of Compact Hirsutum Varieties – Irrigated (IET-Compact Variety IRR) Under Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |      |    |                     |    |          |    |     |    |     |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|------|----|---------------------|----|----------|----|-----|----|-----|----|------|----|
|        |         |                      | RARS, Warangal                                              |    |      |    |      |    |      |    |      |    | CICR RS, Coimbatore |    |          |    |     |    |     |    |      |    |
|        |         |                      | ALS                                                         |    | CoLS |    | GM   |    | Rust |    | TSV  |    | ALS                 |    | Boll rot |    | GM  |    | TSV |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI  | DR | PDI                 | DR | PDI      | DR | PDI | DR | PDI | DR | PDI  | DR |
| 4      | 55171   | CCH 25-3 Bt II       | 5.0                                                         | R  | 6.0  | R  | 17.0 | R  | 38.5 | MR | 7.5  | R  | 4.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 3.5  | R  |
| 9      | 55172   | CCH 25-4 Bt II       | 6.5                                                         | R  | 6.5  | R  | 18.5 | R  | 36.5 | MR | 7.5  | R  | 5.0                 | R  | 0.0      | DF | 1.5 | R  | 0.0 | DF | 4.5  | R  |
| 1      | 55173   | CCH 25-1 Bt II       | 4.0                                                         | R  | 5.5  | R  | 18.0 | R  | 29.0 | MR | 10.0 | R  | 5.5                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 3.0  | R  |
| 7      | 55174   | CICR 23 Bt (ZC Bt-1) | 5.5                                                         | R  | 5.5  | R  | 13.0 | R  | 44.0 | MR | 7.5  | R  | 4.0                 | R  | 0.0      | DF | 0.0 | DF | 0.0 | DF | 4.5  | R  |
| 3      | 55175   | Nano Bt              | 6.0                                                         | R  | 8.0  | R  | 13.0 | R  | 28.5 | MR | 10.0 | R  | 3.5                 | R  | 0.0      | DF | 2.5 | R  | 0.0 | DF | 3.5  | R  |
| 8      | 55176   | Subiksha Bt          | 7.0                                                         | R  | 7.0  | R  | 16.0 | R  | 36.0 | MR | 7.5  | R  | 4.0                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.5  | R  |
| 2      | 55177   | PKV 081 Bt (ZC Bt-2) | 6.5                                                         | R  | 6.0  | R  | 13.5 | R  | 42.0 | MR | 10.0 | R  | 5.0                 | R  | 0.0      | DF | 1.0 | R  | 2.5 | R  | 3.5  | R  |
| 6      | 55178   | CCH 25-2 Bt II       | 7.0                                                         | R  | 8.0  | R  | 19.0 | R  | 38.0 | MR | 11.3 | R  | 4.5                 | R  | 0.0      | DF | 2.0 | R  | 0.0 | DF | 4.0  | R  |
| 5      | 55179   | Suraksha Bt          | 7.0                                                         | R  | 8.0  | R  | 13.5 | R  | 38.5 | MR | 7.5  | R  | 6.5                 | R  | 0.0      | DF | 3.0 | R  | 2.6 | R  | 6.5  | R  |

Table- 10 (c) Initial Evaluation Trial of Compact Hirsutum Varieties – Irrigated (IET-Compact Variety IRR) Under protected and Unprotected conditions

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR):<br>Protected conditions: Lam, Guntur |    |      |    |      |    | Average PDI & Disease Reaction (DR):<br>UnProtected conditions: Lam, Guntur |    |      |    |      |    |
|--------|---------|----------------------|---------------------------------------------------------------------------|----|------|----|------|----|-----------------------------------------------------------------------------|----|------|----|------|----|
|        |         |                      | CoLS                                                                      |    | GM   |    | Rust |    | CoLS                                                                        |    | GM   |    | Rust |    |
|        |         |                      | PDI                                                                       | DR | PDI  | DR | PDI  | DR | PDI                                                                         | DR | PDI  | DR | PDI  | DR |
| 4      | 55171   | CCH 25-3 Bt II       | 24.0                                                                      | R  | 22.8 | R  | 16.3 | R  | 30.5                                                                        | MR | 28.0 | MR | 18.3 | R  |
| 9      | 55172   | CCH 25-4 Bt II       | 25.8                                                                      | MR | 27.3 | MR | 26.0 | MR | 31.5                                                                        | MR | 29.0 | MR | 27.8 | MR |
| 1      | 55173   | CCH 25-1 Bt II       | 23.5                                                                      | R  | 26.0 | MR | 27.5 | MR | 28.3                                                                        | MR | 27.5 | MR | 30.0 | MR |
| 7      | 55174   | CICR 23 Bt (ZC Bt-1) | 24.3                                                                      | R  | 12.5 | R  | 26.3 | MR | 27.3                                                                        | MR | 18.5 | R  | 30.8 | MR |
| 3      | 55175   | Nano Bt              | 28.1                                                                      | MR | 28.5 | MR | 26.5 | MR | 42.0                                                                        | MR | 30.8 | MR | 28.0 | MR |
| 8      | 55176   | Subiksha Bt          | 20.0                                                                      | R  | 27.8 | MR | 27.8 | MR | 26.3                                                                        | MR | 31.0 | MR | 30.8 | MR |
| 2      | 55177   | PKV 081 Bt (ZC Bt-2) | 26.8                                                                      | MR | 26.8 | MR | 28.2 | MR | 30.8                                                                        | MR | 30.8 | MR | 32.8 | MR |
| 6      | 55178   | CCH 25-2 Bt II       | 20.2                                                                      | R  | 28.0 | MR | 29.2 | MR | 28.8                                                                        | MR | 31.0 | MR | 30.8 | MR |
| 5      | 55179   | Suraksha Bt          | 23.8                                                                      | R  | 22.5 | R  | 26.8 | MR | 26.5                                                                        | MR | 30.5 | MR | 29.0 | MR |

## Initial Evaluation Trial of Intra-Hirsutum Bt Hybrids - Rainfed

### *Constitution of Trial*

The trial was constituted with 12 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

| S. No. | Code-I   | Code -II     | Entries                         | Sponsored by                    |
|--------|----------|--------------|---------------------------------|---------------------------------|
| 1      | 14       | 56001        | KCH9268 BGII                    | Kaveri Seed Company Ltd.        |
| 2      | 7        | 56002        | <b>SP7679 BGII (ZC 1)</b>       |                                 |
| 3      | 4        | 56003        | KCH9269 BGII                    | Kaveri Seed Company Ltd.        |
| 4      | 1        | 56004        | RSCH-136 BGII                   | Royal Seeds Private Limited     |
| 5      | 10       | 56005        | PMCH-114 Bt2                    | Palamoor Seeds Pvt Ltd          |
| 6      | 12       | 56006        | RSCH-119 BGII                   | Royal Seeds Private Limited     |
| 7      | 5        | 56007        | SBCH-4145                       | Sai Bhavya Seeds Pvt Ltd        |
| 8      | 8        | 56008        | Core 105 BGII                   | Core seeds                      |
| 9      | <b>2</b> | <b>56009</b> | <b>Daftari 615 BG II (ZC 2)</b> |                                 |
| 10     | 9        | 56010        | DC5108 BGII                     | Rallis India Limited            |
| 11     | 13       | 56011        | KCH9267 BGII                    | Kaveri Seed Company Ltd.        |
| 12     | 11       | 56012        | SBCH-2142                       | Sai Bhavya Seeds Pvt Ltd        |
| 13     | 6        | 56013        | SP 7705 BGII                    | Crystal Crop Protection Limited |
| 14     | 3        | 56014        | BIOSEED 6901 BGII               | Bioseed Research India          |

The trial was conducted in seven locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, Perambalur, Hyderabad (Kaveri), and Warangal (Core seeds)\*.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Recommended spacing for the hybrid has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|
| 1      | KCH9268 BGII                    | 179.6   | 183.6    | 110.7   | 206.9      | 151.1              | <b>166.4</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 144.5   | 186.2    | 113.1   | 182.4      | 158.5              | <b>156.9</b> |
| 3      | KCH9269 BGII                    | 160.1   | 173.4    | 107.0   | 182.0      | 160.5              | <b>156.6</b> |
| 4      | RSCH-136 BGII                   | 158.1   | 177.9    | 114.1   | 186.4      | 156.7              | <b>158.6</b> |
| 5      | PMCH-114 Bt2                    | 152.3   | 176.6    | 110.4   | 171.2      | 154.4              | <b>153.0</b> |
| 6      | RSCH-119 BGII                   | 147.7   | 191.6    | 120.2   | 181.2      | 155.5              | <b>159.2</b> |
| 7      | SBCH-4145                       | 153.6   | 169.9    | 111.1   | 197.9      | 140.5              | <b>154.6</b> |
| 8      | Core 105 BGII                   | 154.7   | 211.2    | 129.6   | 216.9      | 158.2              | <b>174.1</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 140.8   | 176.0    | 131.7   | 185.6      | 149.5              | <b>156.7</b> |
| 10     | DC5108 BGII                     | 165.1   | 211.8    | 141.6   | 207.4      | 172.5              | <b>179.7</b> |
| 11     | KCH9267 BGII                    | 165.9   | 179.1    | 113.6   | 196.5      | 155.9              | <b>162.2</b> |
| 12     | SBCH-2142                       | 162.5   | 194.6    | 111.0   | 189.9      | 177.2              | <b>167.0</b> |
| 13     | SP 7705 BGII                    | 122.4   | 194.3    | 104.2   | 178.7      | 146.1              | <b>149.1</b> |
| 14     | BIOSEED 6901 BGII               | 122.5   | 187.3    | 114.7   | 187.4      | 136.2              | <b>149.6</b> |
|        | CD @ 5%                         | 21.1    | NS       | 16.6    | 25.3       | 8.0                |              |
|        | CV %                            | 8.2     | 6.1      | 8.5     | 8.3        | 20.9               |              |

**Number of monopodia in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | KCH9268 BGII                    | 1.0     | 2.0      | 2.1     | 2.0        | 1.1                | <b>1.6</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 0.6     | 3.3      | 1.2     | 2.7        | 1.7                | <b>1.9</b> |
| 3      | KCH9269 BGII                    | 0.8     | 1.4      | 0.9     | 2.0        | 1.2                | <b>1.3</b> |
| 4      | RSCH-136 BGII                   | 0.7     | 2.0      | 0.9     | 2.0        | 1.2                | <b>1.4</b> |
| 5      | PMCH-114 Bt2                    | 0.8     | 1.4      | 1.1     | 1.8        | 1.1                | <b>1.2</b> |
| 6      | RSCH-119 BGII                   | 0.7     | 1.1      | 0.9     | 1.3        | 1.3                | <b>1.1</b> |
| 7      | SBCH-4145                       | 0.5     | 1.7      | 1.1     | 2.2        | 1.1                | <b>1.3</b> |
| 8      | Core 105 BGII                   | 0.5     | 1.3      | 1.1     | 1.3        | 1.2                | <b>1.1</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 0.6     | 1.5      | 0.9     | 1.7        | 1.1                | <b>1.2</b> |
| 10     | DC5108 BGII                     | 0.7     | 1.2      | 2.0     | 2.2        | 1.1                | <b>1.4</b> |
| 11     | KCH9267 BGII                    | 0.5     | 1.1      | 0.8     | 1.8        | 1.0                | <b>1.0</b> |
| 12     | SBCH-2142                       | 1.0     | 1.4      | 1.9     | 1.5        | 1.3                | <b>1.4</b> |
| 13     | SP 7705 BGII                    | 0.4     | 1.4      | 0.1     | 1.6        | 1.1                | <b>0.9</b> |
| 14     | BIOSEED 6901 BGII               | 0.4     | 1.4      | 1.0     | 2.3        | 1.3                | <b>1.3</b> |
|        | CD @ 5%                         | 0.3     | 0.7      | 0.3     | 0.7        | 16.8               |            |
|        | CV %                            | 34.0    | 25.0     | 17.7    | 24.5       | 0.3                |            |



**Number of sympodia in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 15.5    | 20.1     | 17.6    | 28.8       | 18.5               | <b>20.1</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 14.1    | 19.3     | 18.6    | 22.8       | 17.9               | <b>18.5</b> |
| 3      | KCH9269 BGII                    | 14.9    | 19.5     | 18.4    | 27.6       | 19.5               | <b>20.0</b> |
| 4      | RSCH-136 BGII                   | 18.2    | 19.6     | 19.1    | 27.8       | 17.3               | <b>20.4</b> |
| 5      | PMCH-114 Bt2                    | 16.1    | 18.6     | 17.6    | 27.5       | 19.4               | <b>19.8</b> |
| 6      | RSCH-119 BGII                   | 16.8    | 20.9     | 18.7    | 26.8       | 16.7               | <b>20.0</b> |
| 7      | SBCH-4145                       | 14.2    | 18.3     | 16.3    | 26.8       | 15.2               | <b>18.2</b> |
| 8      | Core 105 BGII                   | 16.4    | 21.1     | 19.8    | 27.0       | 19.3               | <b>20.7</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 12.2    | 17.8     | 20.1    | 25.9       | 17.5               | <b>18.7</b> |
| 10     | DC5108 BGII                     | 14.8    | 19.1     | 21.0    | 27.0       | 20.9               | <b>20.6</b> |
| 11     | KCH9267 BGII                    | 15.3    | 17.9     | 18.6    | 27.0       | 17.8               | <b>19.3</b> |
| 12     | SBCH-2142                       | 12.7    | 20.2     | 18.9    | 27.9       | 24.2               | <b>20.8</b> |
| 13     | SP 7705 BGII                    | 12.2    | 21.2     | 17.4    | 24.7       | 14.9               | <b>18.1</b> |
| 14     | BIOSEED 6901 BGII               | 13.4    | 21.9     | 19.7    | 29.1       | 16.7               | <b>20.2</b> |
|        | CD @ 5%                         | 3.4     | NS       | 2.7     | 2.0        | 15.4               |             |
|        | CV %                            | 13.8    | 9.8      | 8.5     | 4.8        | 4.7                |             |

**Boll weight (g) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | KCH9268 BGII                    | 5.4     | 6.3      | 6.2     | 6.3        | 6.1                | <b>6.1</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 5.1     | 6.3      | 6.4     | 6.1        | 5.8                | <b>5.9</b> |
| 3      | KCH9269 BGII                    | 5.2     | 7.1      | 6.4     | 5.7        | 5.8                | <b>6.0</b> |
| 4      | RSCH-136 BGII                   | 5.3     | 6.3      | 6.4     | 7.1        | 5.5                | <b>6.1</b> |
| 5      | PMCH-114 Bt2                    | 5.4     | 6.8      | 6.2     | 6.1        | 5.1                | <b>5.9</b> |
| 6      | RSCH-119 BGII                   | 5.1     | 6.8      | 6.4     | 6.6        | 5.6                | <b>6.1</b> |
| 7      | SBCH-4145                       | 5.4     | 6.6      | 6.4     | 7.5        | 5.6                | <b>6.3</b> |
| 8      | Core 105 BGII                   | 4.9     | 6.4      | 5.7     | 6.0        | 5.0                | <b>5.6</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 5.2     | 7.0      | 7.0     | 7.0        | 5.3                | <b>6.3</b> |
| 10     | DC5108 BGII                     | 5.2     | 7.3      | 6.5     | 7.6        | 5.5                | <b>6.4</b> |
| 11     | KCH9267 BGII                    | 4.6     | 5.6      | 5.9     | 5.9        | 5.4                | <b>5.5</b> |
| 12     | SBCH-2142                       | 5.0     | 6.2      | 5.8     | 6.2        | 5.3                | <b>5.7</b> |
| 13     | SP 7705 BGII                    | 4.9     | 6.5      | 7.1     | 6.6        | 6.0                | <b>6.2</b> |
| 14     | BIOSEED 6901 BGII               | 4.2     | 6.0      | 5.4     | 6.3        | 4.5                | <b>5.3</b> |
|        | CD @ 5%                         | 0.4     | 0.9      | 0.6     | 0.9        | 5.1                |            |
|        | CV %                            | 5.5     | 8.2      | 5.5     | 9.1        | 0.5                |            |





**Number of bolls / plant in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 22.5    | 22.1     | 19.7    | 26.7       | 34.1               | <b>25.0</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 16.2    | 21.0     | 21.3    | 29.7       | 25.1               | <b>22.7</b> |
| 3      | KCH9269 BGII                    | 21.7    | 27.3     | 20.1    | 36.2       | 34.7               | <b>28.0</b> |
| 4      | RSCH-136 BGII                   | 29.7    | 20.5     | 23.0    | 36.6       | 27.8               | <b>27.5</b> |
| 5      | PMCH-114 Bt2                    | 27.1    | 21.3     | 19.8    | 35.5       | 28.7               | <b>26.5</b> |
| 6      | RSCH-119 BGII                   | 23.0    | 20.7     | 18.3    | 38.4       | 27.1               | <b>25.5</b> |
| 7      | SBCH-4145                       | 20.3    | 17.3     | 21.9    | 32.6       | 22.4               | <b>22.9</b> |
| 8      | Core 105 BGII                   | 23.5    | 19.9     | 24.6    | 32.1       | 32.3               | <b>26.5</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 17.3    | 18.6     | 20.3    | 27.3       | 26.9               | <b>22.1</b> |
| 10     | DC5108 BGII                     | 23.9    | 22.0     | 22.2    | 34.0       | 26.7               | <b>25.8</b> |
| 11     | KCH9267 BGII                    | 26.8    | 20.7     | 21.8    | 35.9       | 36.9               | <b>28.4</b> |
| 12     | SBCH-2142                       | 17.6    | 25.6     | 22.3    | 37.1       | 32.3               | <b>27.0</b> |
| 13     | SP 7705 BGII                    | 15.5    | 17.9     | 18.3    | 25.4       | 23.5               | <b>20.1</b> |
| 14     | BIOSEED 6901 BGII               | 21.2    | 20.9     | 22.4    | 30.5       | 32.1               | <b>25.4</b> |
|        | CD @ 5%                         | 4.5     | 3.5      | 3.4     | 8.9        | 9.0                |             |
|        | CV %                            | 12.4    | 9.9      | 9.5     | 17.1       | 4.4                |             |

**Number of bolls / sq.m. in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 76.7    | 78.7     | 36.4    | 110.0      | 103.2              | <b>81.0</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 72.0    | 78.7     | 39.5    | 117.0      | 76.2               | <b>76.7</b> |
| 3      | KCH9269 BGII                    | 81.7    | 87.7     | 37.2    | 145.0      | 105.1              | <b>91.3</b> |
| 4      | RSCH-136 BGII                   | 89.3    | 85.3     | 42.6    | 146.0      | 84.2               | <b>89.5</b> |
| 5      | PMCH-114 Bt2                    | 73.7    | 70.3     | 36.6    | 143.0      | 87.1               | <b>82.1</b> |
| 6      | RSCH-119 BGII                   | 75.0    | 82.7     | 33.9    | 158.0      | 82.0               | <b>86.3</b> |
| 7      | SBCH-4145                       | 79.3    | 82.0     | 40.5    | 128.0      | 67.9               | <b>79.5</b> |
| 8      | Core 105 BGII                   | 82.3    | 68.7     | 45.4    | 127.0      | 97.8               | <b>84.2</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 78.7    | 81.0     | 37.6    | 112.0      | 81.6               | <b>78.2</b> |
| 10     | DC5108 BGII                     | 89.0    | 68.7     | 41.1    | 139.0      | 80.8               | <b>83.7</b> |
| 11     | KCH9267 BGII                    | 92.3    | 75.3     | 40.3    | 136.0      | 111.7              | <b>91.1</b> |
| 12     | SBCH-2142                       | 82.0    | 78.3     | 41.3    | 157.0      | 98.0               | <b>91.3</b> |
| 13     | SP 7705 BGII                    | 66.7    | 83.0     | 33.9    | 101.0      | 71.1               | <b>71.1</b> |
| 14     | BIOSEED 6901 BGII               | 79.3    | 86.3     | 41.5    | 135.0      | 97.2               | <b>87.9</b> |
|        | CD @ 5%                         | 11.3    | NS       | 6.3     | 34.5       | 9.0                |             |
|        | CV %                            | 8.0     | 12.9     | 9.5     | 16.3       | 13.4               |             |



**Lint Index (g) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | KCH9268 BGII                    | 6.9     | 5.3      | 5.9     | 9.2        | 5.9                | <b>6.6</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 5.2     | 6.3      | 8.5     | 8.3        | 5.7                | <b>6.8</b> |
| 3      | KCH9269 BGII                    | 4.9     | 5.6      | 6.0     | 8.9        | 5.4                | <b>6.2</b> |
| 4      | RSCH-136 BGII                   | 5.8     | 5.5      | 6.7     | 10.3       | 4.8                | <b>6.6</b> |
| 5      | PMCH-114 Bt2                    | 4.7     | 5.4      | 5.8     | 9.8        | 4.6                | <b>6.1</b> |
| 6      | RSCH-119 BGII                   | 7.5     | 5.0      | 6.3     | 9.5        | 4.6                | <b>6.6</b> |
| 7      | SBCH-4145                       | 6.6     | 6.0      | 7.1     | 10.0       | 5.6                | <b>7.1</b> |
| 8      | Core 105 BGII                   | 6.5     | 6.8      | 7.1     | 9.8        | 5.7                | <b>7.2</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 5.5     | 5.5      | 6.9     | 10.7       | 4.2                | <b>6.6</b> |
| 10     | DC5108 BGII                     | 6.8     | 5.7      | 6.2     | 9.4        | 5.1                | <b>6.6</b> |
| 11     | KCH9267 BGII                    | 5.1     | 4.6      | 5.6     | 8.4        | 5.2                | <b>5.8</b> |
| 12     | SBCH-2142                       | 6.0     | 5.8      | 7.2     | 9.0        | 5.3                | <b>6.7</b> |
| 13     | SP 7705 BGII                    | 7.6     | 6.7      | 8.2     | 10.0       | 5.9                | <b>7.7</b> |
| 14     | BIOSEED 6901 BGII               | 6.9     | 5.3      | 6.3     | 8.9        | 4.5                | <b>6.4</b> |
|        | CD @ 5%                         | 0.8     | 0.6      |         | 0.7        | 5.7                |            |
|        | CV %                            | 8.2     | 6.5      |         | 4.4        | 0.5                |            |

**Seed Index (g) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 11.4    | 11.3     | 12.5    | 13.8       | 10.3               | <b>11.9</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 10.8    | 11.3     | 12.9    | 13.3       | 10.0               | <b>11.7</b> |
| 3      | KCH9269 BGII                    | 10.8    | 12.7     | 12.8    | 13.6       | 9.3                | <b>11.8</b> |
| 4      | RSCH-136 BGII                   | 10.9    | 11.6     | 13.5    | 14.4       | 10.7               | <b>12.2</b> |
| 5      | PMCH-114 Bt2                    | 11.3    | 10.9     | 12.4    | 13.7       | 9.7                | <b>11.6</b> |
| 6      | RSCH-119 BGII                   | 9.9     | 11.7     | 12.6    | 13.5       | 9.3                | <b>11.4</b> |
| 7      | SBCH-4145                       | 10.3    | 11.9     | 12.6    | 14.3       | 10.0               | <b>11.8</b> |
| 8      | Core 105 BGII                   | 10.2    | 11.7     | 11.6    | 13.5       | 9.3                | <b>11.3</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 11.5    | 12.7     | 15.9    | 14.5       | 10.7               | <b>13.1</b> |
| 10     | DC5108 BGII                     | 11.3    | 11.9     | 12.7    | 14.0       | 10.3               | <b>12.0</b> |
| 11     | KCH9267 BGII                    | 9.7     | 9.9      | 11.2    | 12.5       | 9.0                | <b>10.5</b> |
| 12     | SBCH-2142                       | 10.0    | 11.0     | 12.5    | 13.3       | 9.7                | <b>11.3</b> |
| 13     | SP 7705 BGII                    | 10.1    | 11.6     | 12.4    | 14.0       | 10.3               | <b>11.7</b> |
| 14     | BIOSEED 6901 BGII               | 8.7     | 10.1     | 11.6    | 12.8       | 9.3                | <b>10.5</b> |
|        | CD @ 5%                         | 0.9     | 1.3      |         | 0.7        | 5.2                |             |
|        | CV %                            | 5.5     | 6.7      |         | 3.0        | 0.9                |             |



**Ginning outturn (%) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 37.6    | 32.0     | 32.0    | 39.9       | 36.5               | <b>35.6</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 32.3    | 35.8     | 39.7    | 38.3       | 36.5               | <b>36.5</b> |
| 3      | KCH9269 BGII                    | 31.0    | 30.7     | 32.0    | 39.5       | 36.7               | <b>34.0</b> |
| 4      | RSCH-136 BGII                   | 34.5    | 32.3     | 33.1    | 41.7       | 31.1               | <b>34.5</b> |
| 5      | PMCH-114 Bt2                    | 29.4    | 33.1     | 31.8    | 41.5       | 32.3               | <b>33.6</b> |
| 6      | RSCH-119 BGII                   | 42.1    | 30.1     | 33.3    | 41.3       | 33.1               | <b>36.0</b> |
| 7      | SBCH-4145                       | 38.9    | 33.4     | 36.0    | 41.3       | 35.7               | <b>37.1</b> |
| 8      | Core 105 BGII                   | 39.1    | 36.6     | 38.0    | 42.1       | 37.8               | <b>38.7</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 32.4    | 30.1     | 30.1    | 42.5       | 28.0               | <b>32.6</b> |
| 10     | DC5108 BGII                     | 37.0    | 32.2     | 32.7    | 40.3       | 33.1               | <b>35.1</b> |
| 11     | KCH9267 BGII                    | 36.1    | 31.9     | 33.4    | 40.3       | 36.6               | <b>35.7</b> |
| 12     | SBCH-2142                       | 39.4    | 34.5     | 36.7    | 40.4       | 35.3               | <b>37.3</b> |
| 13     | SP 7705 BGII                    | 41.0    | 36.7     | 39.8    | 41.6       | 36.2               | <b>39.1</b> |
| 14     | BIOSEED 6901 BGII               | 44.2    | 34.5     | 35.3    | 41.0       | 32.3               | <b>37.5</b> |
|        | CD @ 5%                         | 4.2     | 1.8      |         | 2.3        | 1.6                |             |
|        | CV %                            | 6.7     | 3.3      |         | 3.5        | 0.9                |             |

**Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 28.4    | 27.9     | 29.1    | 28.2       | 28.4               | <b>28.4</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 27.8    | 27.6     | 29.4    | 25.8       | 27.4               | <b>27.6</b> |
| 3      | KCH9269 BGII                    | 29.7    | 30.3     | 29.3    | 29.6       | 29.9               | <b>29.8</b> |
| 4      | RSCH-136 BGII                   | 30.0    | 28.2     | 32.1    | 28.7       | 28.9               | <b>29.6</b> |
| 5      | PMCH-114 Bt2                    | 29.8    | 29.8     | 31.6    | 29.9       | 28.3               | <b>29.9</b> |
| 6      | RSCH-119 BGII                   | 28.2    | 31.2     | 32.1    | 30.6       | 28.5               | <b>30.1</b> |
| 7      | SBCH-4145                       | 28.4    | 29.2     | 31.3    | 33.2       | 28.9               | <b>30.2</b> |
| 8      | Core 105 BGII                   | 27.3    | 27.9     | 30.0    | 30.5       | 28.6               | <b>28.9</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 30.3    | 30.8     | 34.7    | 32.5       | 30.2               | <b>31.7</b> |
| 10     | DC5108 BGII                     | 28.1    | 28.4     | 32.1    | 27.4       | 27.0               | <b>28.6</b> |
| 11     | KCH9267 BGII                    | 26.9    | 25.9     | 28.2    | 26.6       | 25.4               | <b>26.6</b> |
| 12     | SBCH-2142                       | 27.3    | 27.7     | 28.9    | 27.6       | 26.2               | <b>27.5</b> |
| 13     | SP 7705 BGII                    | 27.5    | 27.4     | 29.7    | 27.9       | 26.9               | <b>27.9</b> |
| 14     | BIOSEED 6901 BGII               | 27.8    | 27.9     | 30.6    | 28.1       | 26.2               | <b>28.1</b> |



**Uniformity index under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 83.0    | 82.0     | 84.0    | 84.0       | 84.0               | <b>83.4</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 83.0    | 83.0     | 85.0    | 83.0       | 84.0               | <b>83.6</b> |
| 3      | KCH9269 BGII                    | 83.0    | 83.0     | 85.0    | 84.0       | 83.0               | <b>83.6</b> |
| 4      | RSCH-136 BGII                   | 82.0    | 83.0     | 86.0    | 84.0       | 85.0               | <b>84.0</b> |
| 5      | PMCH-114 Bt2                    | 83.0    | 84.0     | 85.0    | 84.0       | 82.0               | <b>83.6</b> |
| 6      | RSCH-119 BGII                   | 83.0    | 83.0     | 87.0    | 85.0       | 84.0               | <b>84.4</b> |
| 7      | SBCH-4145                       | 83.0    | 83.0     | 86.0    | 85.0       | 84.0               | <b>84.2</b> |
| 8      | Core 105 BGII                   | 84.0    | 82.0     | 87.0    | 84.0       | 84.0               | <b>84.2</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 83.0    | 83.0     | 86.0    | 85.0       | 83.0               | <b>84.0</b> |
| 10     | DC5108 BGII                     | 84.0    | 83.0     | 84.0    | 84.0       | 84.0               | <b>83.8</b> |
| 11     | KCH9267 BGII                    | 84.0    | 83.0     | 86.0    | 83.0       | 82.0               | <b>83.6</b> |
| 12     | SBCH-2142                       | 84.0    | 82.0     | 85.0    | 84.0       | 84.0               | <b>83.8</b> |
| 13     | SP 7705 BGII                    | 84.0    | 83.0     | 85.0    | 84.0       | 84.0               | <b>84.0</b> |
| 14     | BIOSEED 6901 BGII               | 83.0    | 83.0     | 86.0    | 84.0       | 82.0               | <b>83.6</b> |

**Micronaire under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | KCH9268 BGII                    | 4.4     | 4.4      | 4.8     | 4.8        | 3.7                | <b>4.4</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 4.6     | 5.1      | 5.3     | 4.7        | 4.1                | <b>4.8</b> |
| 3      | KCH9269 BGII                    | 4.5     | 4.7      | 4.7     | 4.7        | 3.7                | <b>4.5</b> |
| 4      | RSCH-136 BGII                   | 3.7     | 4.3      | 4.1     | 5.0        | 3.3                | <b>4.1</b> |
| 5      | PMCH-114 Bt2                    | 4.3     | 4.5      | 4.4     | 4.8        | 3.6                | <b>4.3</b> |
| 6      | RSCH-119 BGII                   | 4.2     | 3.7      | 4.1     | 4.4        | 3.3                | <b>3.9</b> |
| 7      | SBCH-4145                       | 4.4     | 4.8      | 4.5     | 5.0        | 3.6                | <b>4.5</b> |
| 8      | Core 105 BGII                   | 4.6     | 4.8      | 4.7     | 4.5        | 4.1                | <b>4.5</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 4.0     | 4.3      | 4.6     | 4.3        | 3.3                | <b>4.1</b> |
| 10     | DC5108 BGII                     | 4.2     | 4.7      | 4.8     | 5.1        | 3.8                | <b>4.5</b> |
| 11     | KCH9267 BGII                    | 4.4     | 5.0      | 4.8     | 5.4        | 4.1                | <b>4.7</b> |
| 12     | SBCH-2142                       | 4.4     | 4.8      | 5.7     | 4.7        | 4.1                | <b>4.7</b> |
| 13     | SP 7705 BGII                    | 4.0     | 4.9      | 4.8     | 5.2        | 3.7                | <b>4.5</b> |
| 14     | BIOSEED 6901 BGII               | 4.5     | 4.8      | 4.3     | 4.8        | 3.2                | <b>4.3</b> |



**Tenacity under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | KCH9268 BGII                    | 29.8    | 29.8     | 31.5    | 29.2       | 27.1               | <b>29.5</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 29.0    | 28.7     | 30.2    | 27.1       | 28.6               | <b>28.7</b> |
| 3      | KCH9269 BGII                    | 31.4    | 30.6     | 27.6    | 29.4       | 26.1               | <b>29.0</b> |
| 4      | RSCH-136 BGII                   | 30.6    | 30.3     | 29.5    | 30.2       | 29.4               | <b>30.0</b> |
| 5      | PMCH-114 Bt2                    | 30.2    | 31.0     | 29.5    | 30.7       | 25.1               | <b>29.3</b> |
| 6      | RSCH-119 BGII                   | 31.1    | 31.8     | 31.7    | 30.1       | 27.0               | <b>30.3</b> |
| 7      | SBCH-4145                       | 29.5    | 30.8     | 31.6    | 29.7       | 27.0               | <b>29.7</b> |
| 8      | Core 105 BGII                   | 28.1    | 29.9     | 28.8    | 30.1       | 26.6               | <b>28.7</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 31.6    | 30.8     | 31.6    | 32.3       | 29.5               | <b>31.2</b> |
| 10     | DC5108 BGII                     | 29.3    | 29.8     | 29.8    | 28.2       | 26.2               | <b>28.7</b> |
| 11     | KCH9267 BGII                    | 29.1    | 27.3     | 30.5    | 27.4       | 26.5               | <b>28.2</b> |
| 12     | SBCH-2142                       | 29.6    | 29.8     | 31.4    | 28.5       | 24.6               | <b>28.8</b> |
| 13     | SP 7705 BGII                    | 29.6    | 28.9     | 31.3    | 27.9       | 27.3               | <b>29.0</b> |
| 14     | BIOSEED 6901 BGII               | 29.4    | 29.8     | 28.4    | 27.3       | 25.0               | <b>28.0</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|
| 1      | KCH9268 BGII                    | 18.63   | 23.30    | 10.07   | 8.10       | 23.09              | <b>16.64</b> |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 15.31   | 19.50    | 8.85    | 10.58      | 15.49              | <b>13.95</b> |
| 3      | KCH9269 BGII                    | 19.00   | 23.30    | 13.87   | 10.09      | 24.28              | <b>18.11</b> |
| 4      | RSCH-136 BGII                   | 24.73   | 20.31    | 11.03   | 12.32      | 23.01              | <b>18.28</b> |
| 5      | PMCH-114 Bt2                    | 16.10   | 18.41    | 8.33    | 14.26      | 12.38              | <b>13.90</b> |
| 6      | RSCH-119 BGII                   | 17.11   | 26.94    | 6.28    | 14.29      | 19.57              | <b>16.84</b> |
| 7      | SBCH-4145                       | 21.19   | 26.31    | 7.81    | 11.54      | 16.61              | <b>16.69</b> |
| 8      | Core 105 BGII                   | 22.09   | 12.93    | 7.62    | 15.02      | 16.08              | <b>14.75</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 17.08   | 21.80    | 11.01   | 12.79      | 11.63              | <b>14.86</b> |
| 10     | DC5108 BGII                     | 24.37   | 18.43    | 5.58    | 15.49      | 14.14              | <b>15.60</b> |
| 11     | KCH9267 BGII                    | 25.30   | 24.04    | 12.50   | 13.39      | 26.99              | <b>20.44</b> |
| 12     | SBCH-2142                       | 20.68   | 20.76    | 7.08    | 16.03      | 16.91              | <b>16.29</b> |
| 13     | SP 7705 BGII                    | 17.89   | 21.85    | 16.55   | 10.29      | 14.96              | <b>16.31</b> |
| 14     | BIOSEED 6901 BGII               | 18.77   | 20.80    | 8.18    | 13.66      | 18.15              | <b>15.91</b> |
|        | CD @ 5%                         | 2.50    | 5.17     | 2.10    | 2.72       | 13.81              |              |
|        | CV %                            | 7.50    | 14.43    | 13.03   | 13.41      | 4.19               |              |



**Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|
| 1      | KCH9268 BGII                    | 4.25    | 9.06     | 8.90    | 9.64       | 7.98               | <b>7.97</b>  |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 2.92    | 7.26     | 9.74    | 9.85       | 10.35              | <b>8.02</b>  |
| 3      | KCH9269 BGII                    | 4.19    | 6.89     | 8.99    | 10.50      | 9.57               | <b>8.03</b>  |
| 4      | RSCH-136 BGII                   | 3.33    | 7.17     | 13.04   | 11.42      | 7.15               | <b>8.42</b>  |
| 5      | PMCH-114 Bt2                    | 3.85    | 9.41     | 8.43    | 8.36       | 10.09              | <b>8.03</b>  |
| 6      | RSCH-119 BGII                   | 3.45    | 5.87     | 12.60   | 7.82       | 7.87               | <b>7.52</b>  |
| 7      | SBCH-4145                       | 4.02    | 5.24     | 11.63   | 10.90      | 7.46               | <b>7.85</b>  |
| 8      | Core 105 BGII                   | 4.65    | 9.67     | 15.00   | 11.06      | 10.05              | <b>10.09</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 3.96    | 8.78     | 11.72   | 7.85       | 7.22               | <b>7.91</b>  |
| 10     | DC5108 BGII                     | 4.00    | 11.89    | 14.33   | 14.35      | 9.00               | <b>10.71</b> |
| 11     | KCH9267 BGII                    | 3.79    | 14.20    | 13.43   | 14.17      | 7.90               | <b>10.70</b> |
| 12     | SBCH-2142                       | 2.94    | 10.07    | 12.60   | 10.93      | 12.64              | <b>9.84</b>  |
| 13     | SP 7705 BGII                    | 3.02    | 6.06     | 6.44    | 10.96      | 6.72               | <b>6.64</b>  |
| 14     | BIOSEED 6901 BGII               | 3.73    | 9.65     | 10.58   | 10.90      | 9.61               | <b>8.89</b>  |
|        | CD @ 5%                         | 0.65    | 2.47     | 2.66    | 2.12       | 17.81              |              |
|        | CV %                            | 10.40   | 17.01    | 14.10   | 12.49      | 2.64               |              |

**Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         | Rank | % Inc over best check |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|------|-----------------------|
| 1      | KCH9268 BGII                    | 22.88   | 32.35    | 18.98   | 17.74      | 31.07              | <b>24.60</b> | 8    | 8.1                   |
| 2      | <b>SP7679 BGII (ZC 1)</b>       | 18.23   | 26.76    | 18.59   | 20.42      | 25.83              | <b>21.97</b> | 13   | -3.5                  |
| 3      | KCH9269 BGII                    | 23.19   | 30.19    | 22.86   | 20.59      | 33.85              | <b>26.14</b> | 4    | 14.8                  |
| 4      | RSCH-136 BGII                   | 28.06   | 27.48    | 24.07   | 23.74      | 30.16              | <b>26.70</b> | 2    | 17.3                  |
| 5      | PMCH-114 Bt2                    | 19.95   | 27.81    | 16.76   | 22.62      | 22.47              | <b>21.92</b> | 14   | -3.7                  |
| 6      | RSCH-119 BGII                   | 20.56   | 32.81    | 18.88   | 22.11      | 27.44              | <b>24.36</b> | 10   | 7.0                   |
| 7      | SBCH-4145                       | 25.20   | 31.55    | 19.44   | 22.43      | 24.07              | <b>24.54</b> | 9    | 7.8                   |
| 8      | Core 105 BGII                   | 26.74   | 22.59    | 22.62   | 26.08      | 26.13              | <b>24.83</b> | 6    | 9.1                   |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 21.05   | 30.57    | 22.72   | 20.64      | 18.85              | <b>22.77</b> | 12   | 0.0                   |
| 10     | DC5108 BGII                     | 28.37   | 30.31    | 19.91   | 29.85      | 23.14              | <b>26.32</b> | 3    | 15.6                  |
| 11     | KCH9267 BGII                    | 29.08   | 38.24    | 25.93   | 27.56      | 34.89              | <b>31.14</b> | 1    | 36.8                  |
| 12     | SBCH-2142                       | 23.61   | 30.83    | 19.69   | 26.95      | 29.56              | <b>26.13</b> | 5    | 14.7                  |
| 13     | SP 7705 BGII                    | 20.91   | 27.91    | 22.99   | 21.24      | 21.67              | <b>22.94</b> | 11   | 0.8                   |
| 14     | BIOSEED 6901 BGII               | 22.50   | 30.44    | 18.76   | 24.56      | 27.76              | <b>24.80</b> | 7    | 8.9                   |
|        | CD @ 5%                         | 2.50    | 5.70     | 3.27    | 3.41       | 11.68              |              |      |                       |
|        | CV %                            | 6.40    | 11.33    | 9.40    | 9.14       | 5.28               |              |      |                       |



### Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Initial H X H trial in South Zone under Protected Conditions – Aphid**

| Name of Entry            | Aphid (Average of 3 leaves/plant) |      |    |      |      |             | Remark      |
|--------------------------|-----------------------------------|------|----|------|------|-------------|-------------|
|                          | NA                                | DH   | PE | AD   | MU   | Mean        |             |
| KCH9268 BGII             | -                                 | 1.14 | -  | 3.39 | 3.45 | <b>2.66</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                 | 1.13 | -  | 2.93 | 3.73 | <b>2.60</b> | <b>BETL</b> |
| KCH9269 BGII             | -                                 | 1.80 | -  | 2.40 | 5.17 | <b>3.12</b> | <b>BETL</b> |
| RSCH-136 BGII            | -                                 | 1.44 | -  | 2.57 | 3.52 | <b>2.51</b> | <b>BETL</b> |
| PMCH-114 Bt2             | -                                 | 1.08 | -  | 2.90 | 3.65 | <b>2.54</b> | <b>BETL</b> |
| RSCH-119 BGII            | -                                 | 0.97 | -  | 2.91 | 2.73 | <b>2.20</b> | <b>BETL</b> |
| SBCH-4145                | -                                 | 1.04 | -  | 3.12 | 2.30 | <b>2.16</b> | <b>BETL</b> |
| Core 105 BGII            | -                                 | 1.18 | -  | 3.47 | 3.34 | <b>2.66</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                 | 1.38 | -  | 3.06 | 6.27 | <b>3.57</b> | <b>BETL</b> |
| DC5108 BGII              | -                                 | 1.02 | -  | 1.19 | 5.31 | <b>2.51</b> | <b>BETL</b> |
| KCH9267 BGII             | -                                 | 1.23 | -  | 2.64 | 2.41 | <b>2.09</b> | <b>BETL</b> |
| SBCH-2142                | -                                 | 1.38 | -  | 3.33 | 1.78 | <b>2.16</b> | <b>BETL</b> |
| SP 7705 BGII             | -                                 | 1.47 | -  | 2.56 | 2.55 | <b>2.19</b> | <b>BETL</b> |
| BIOSEED 6901 BGII        | -                                 | 2.14 | -  | 3.43 | 2.48 | <b>2.69</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry            | Leafhopper (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|----------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                     | DH   | PE   | AD   | MU   | Mean        |             |
| KCH9268 BGII             | -                                      | 0.39 | 7.00 | 0.96 | 1.21 | <b>2.39</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                      | 1.09 | 8.67 | 0.92 | 2.54 | <b>3.30</b> | <b>BETL</b> |
| KCH9269 BGII             | -                                      | 0.42 | 4.33 | 1.54 | 0.70 | <b>1.75</b> | <b>BETL</b> |
| RSCH-136 BGII            | -                                      | 0.64 | 5.33 | 0.51 | 0.81 | <b>1.82</b> | <b>BETL</b> |
| PMCH-114 Bt2             | -                                      | 0.84 | 7.33 | 0.50 | 1.32 | <b>2.50</b> | <b>BETL</b> |
| RSCH-119 BGII            | -                                      | 0.82 | 6.67 | 0.20 | 1.12 | <b>2.20</b> | <b>BETL</b> |
| SBCH-4145                | -                                      | 0.98 | 6.67 | 0.26 | 2.02 | <b>2.48</b> | <b>BETL</b> |
| Core 105 BGII            | -                                      | 1.26 | 6.00 | 0.46 | 1.42 | <b>2.28</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                      | 0.99 | 5.33 | 0.53 | 3.05 | <b>2.48</b> | <b>BETL</b> |
| DC5108 BGII              | -                                      | 1.13 | 5.67 | 0.48 | 1.22 | <b>2.12</b> | <b>BETL</b> |
| KCH9267 BGII             | -                                      | 0.97 | 6.00 | 0.14 | 1.12 | <b>2.06</b> | <b>BETL</b> |
| SBCH-2142                | -                                      | 0.56 | 6.00 | 0.20 | 1.83 | <b>2.15</b> | <b>BETL</b> |
| SP 7705 BGII             | -                                      | 0.99 | 8.33 | 0.23 | 1.20 | <b>2.69</b> | <b>BETL</b> |
| BIOSEED 6901 BGII        | -                                      | 0.69 | 7.33 | 0.50 | 1.12 | <b>2.41</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Protected Conditions – JIG**

| Name of Entry            | JIG/plant |    |    |    |    |      | Remark |
|--------------------------|-----------|----|----|----|----|------|--------|
|                          | NA        | DH | PE | AD | MU | Mean |        |
| KCH9268 BGII             | -         | I  | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1)       | -         | I  | -  | -  | -  | I    |        |
| KCH9269 BGII             | -         | I  | -  | -  | -  | I    |        |
| RSCH-136 BGII            | -         | I  | -  | -  | -  | I    |        |
| PMCH-114 Bt2             | -         | I  | -  | -  | -  | I    |        |
| RSCH-119 BGII            | -         | I  | -  | -  | -  | I    |        |
| SBCH-4145                | -         | I  | -  | -  | -  | I    |        |
| Core 105 BGII            | -         | I  | -  | -  | -  | I    |        |
| Daftari 615 BG II (ZC 2) | -         | I  | -  | -  | -  | I    |        |
| DC5108 BGII              | -         | I  | -  | -  | -  | I    |        |
| KCH9267 BGII             | -         | I  | -  | -  | -  | I    |        |
| SBCH-2142                | -         | I  | -  | -  | -  | I    |        |
| SP 7705 BGII             | -         | I  | -  | -  | -  | I    |        |
| BIOSEED 6901 BGII        | -         | I  | -  | -  | -  | I    |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Protected Conditions – Thrips**

| Name of Entry            | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                 | DH   | PE   | AD   | MU   | Mean        |             |
| KCH9268 BGII             | -                                  | 2.49 | 0.00 | 0.27 | 0.68 | <b>0.86</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                  | 1.56 | 0.00 | 1.37 | 0.71 | <b>0.91</b> | <b>BETL</b> |
| KCH9269 BGII             | -                                  | 1.20 | 0.33 | 1.57 | 1.81 | <b>1.23</b> | <b>BETL</b> |
| RSCH-136 BGII            | -                                  | 2.16 | 0.33 | 1.40 | 2.85 | <b>1.68</b> | <b>BETL</b> |
| PMCH-114 Bt2             | -                                  | 0.73 | 0.00 | 0.90 | 4.08 | <b>1.43</b> | <b>BETL</b> |
| RSCH-119 BGII            | -                                  | 2.36 | 0.00 | 1.40 | 2.79 | <b>1.64</b> | <b>BETL</b> |
| SBCH-4145                | -                                  | 0.86 | 0.00 | 1.00 | 0.62 | <b>0.62</b> | <b>BETL</b> |
| Core 105 BGII            | -                                  | 2.09 | 0.00 | 1.00 | 0.92 | <b>1.00</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                  | 1.02 | 0.00 | 1.10 | 1.41 | <b>0.88</b> | <b>BETL</b> |
| DC5108 BGII              | -                                  | 1.31 | 0.00 | 1.47 | 3.51 | <b>1.57</b> | <b>BETL</b> |
| KCH9267 BGII             | -                                  | 2.42 | 0.00 | 0.83 | 1.57 | <b>1.21</b> | <b>BETL</b> |
| SBCH-2142                | -                                  | 1.49 | 0.00 | 0.87 | 3.70 | <b>1.52</b> | <b>BETL</b> |
| SP 7705 BGII             | -                                  | 2.18 | 0.00 | 0.10 | 1.56 | <b>0.96</b> | <b>BETL</b> |
| BIOSEED 6901 BGII        | -                                  | 1.93 | 0.00 | 2.03 | 4.13 | <b>2.02</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





**Table: Initial H X H trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry            | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|--------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                   | DH   | PE   | AD   | MU   | Mean        |             |
| KCH9268 BGII             | -                                    | 0.00 | 1.67 | 0.23 | 0.74 | <b>0.66</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                    | 0.03 | 0.00 | 0.33 | 0.96 | <b>0.33</b> | <b>BETL</b> |
| KCH9269 BGII             | -                                    | 0.01 | 0.67 | 0.30 | 0.32 | <b>0.32</b> | <b>BETL</b> |
| RSCH-136 BGII            | -                                    | 0.10 | 1.00 | 0.20 | 0.55 | <b>0.46</b> | <b>BETL</b> |
| PMCH-114 Bt2             | -                                    | 0.07 | 1.33 | 0.60 | 0.52 | <b>0.63</b> | <b>BETL</b> |
| RSCH-119 BGII            | -                                    | 0.00 | 0.67 | 0.17 | 0.51 | <b>0.34</b> | <b>BETL</b> |
| SBCH-4145                | -                                    | 0.02 | 1.33 | 0.17 | 0.85 | <b>0.59</b> | <b>BETL</b> |
| Core 105 BGII            | -                                    | 0.07 | 0.33 | 0.13 | 0.93 | <b>0.36</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                    | 0.02 | 0.67 | 0.20 | 0.22 | <b>0.28</b> | <b>BETL</b> |
| DC5108 BGII              | -                                    | 0.04 | 1.00 | 0.23 | 0.21 | <b>0.37</b> | <b>BETL</b> |
| KCH9267 BGII             | -                                    | 0.02 | 0.00 | 0.13 | 0.81 | <b>0.24</b> | <b>BETL</b> |
| SBCH-2142                | -                                    | 0.02 | 1.00 | 0.20 | 0.73 | <b>0.49</b> | <b>BETL</b> |
| SP 7705 BGII             | -                                    | 0.03 | 0.00 | 0.27 | 0.40 | <b>0.17</b> | <b>BETL</b> |
| BIOSEED 6901 BGII        | -                                    | 0.06 | 1.33 | 0.20 | 0.37 | <b>0.49</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry            | Natural Enemies (No./plant) |      |      |    |    |             | Remark |
|--------------------------|-----------------------------|------|------|----|----|-------------|--------|
|                          | NA                          | DH   | PE   | AD | MU | Mean        |        |
| KCH9268 BGII             | -                           | 1.41 | 0.00 | -  | -  | <b>0.70</b> |        |
| SP7679 BGII (ZC 1)       | -                           | 0.69 | 0.00 | -  | -  | <b>0.34</b> |        |
| KCH9269 BGII             | -                           | 0.62 | 0.00 | -  | -  | <b>0.31</b> |        |
| RSCH-136 BGII            | -                           | 0.52 | 0.00 | -  | -  | <b>0.26</b> |        |
| PMCH-114 Bt2             | -                           | 1.20 | 0.00 | -  | -  | <b>0.60</b> |        |
| RSCH-119 BGII            | -                           | 0.51 | 0.00 | -  | -  | <b>0.26</b> |        |
| SBCH-4145                | -                           | 0.51 | 0.00 | -  | -  | <b>0.26</b> |        |
| Core 105 BGII            | -                           | 0.67 | 0.00 | -  | -  | <b>0.33</b> |        |
| Daftari 615 BG II (ZC 2) | -                           | 1.29 | 0.00 | -  | -  | <b>0.64</b> |        |
| DC5108 BGII              | -                           | 0.93 | 0.00 | -  | -  | <b>0.47</b> |        |
| KCH9267 BGII             | -                           | 0.51 | 0.00 | -  | -  | <b>0.26</b> |        |
| SBCH-2142                | -                           | 0.57 | 0.00 | -  | -  | <b>0.28</b> |        |
| SP 7705 BGII             | -                           | 0.88 | 0.00 | -  | -  | <b>0.44</b> |        |
| BIOSEED 6901 BGII        | -                           | 0.96 | 0.00 | -  | -  | <b>0.48</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Protected Conditions –*Helicoverpa armigera***

| Name of Entry            | <i>Helicoverpa armigera</i> (No. /5plants) |      |      |      |    |      | Remark |
|--------------------------|--------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                         | DH   | PE   | AD   | MU | Mean |        |
| KCH9268 BGII             | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9269 BGII             | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-136 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PMCH-114 Bt2             | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-119 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-4145                | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Core 105 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5108 BGII              | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9267 BGII             | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-2142                | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP 7705 BGII             | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIOSEED 6901 BGII        | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry            | Spotted Bollworms (No. /5 plants) |      |      |      |    |      | Remark |
|--------------------------|-----------------------------------|------|------|------|----|------|--------|
|                          | NA                                | DH   | PE   | AD   | MU | Mean |        |
| KCH9268 BGII             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9269 BGII             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-136 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PMCH-114 Bt2             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-119 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-4145                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Core 105 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5108 BGII              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9267 BGII             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-2142                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP 7705 BGII             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIOSEED 6901 BGII        | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry            | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |    |      | Remark |
|--------------------------|------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                       | DH   | PE   | AD   | MU | Mean |        |
| KCH9268 BGII             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9269 BGII             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-136 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PMCH-114 Bt2             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-119 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-4145                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Core 105 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5108 BGII              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9267 BGII             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-2142                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP 7705 BGII             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIOSEED 6901 BGII        | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Protected Conditions – Pink bollworm**

| Name of Entry            | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |      | Remark |
|--------------------------|---------------------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                                      | DH   | PE   | AD#  | MU | Mean |        |
| KCH9268 BGII             | -                                                       | 0.83 | 2.30 | 0.80 | -  | 1.31 | AETL   |
| SP7679 BGII (ZC 1)       | -                                                       | 0.83 | 1.30 | 0.67 | -  | 0.93 | BETL   |
| KCH9269 BGII             | -                                                       | 1.83 | 1.63 | 0.20 | -  | 1.22 | AETL   |
| RSCH-136 BGII            | -                                                       | 0.83 | 2.63 | 0.73 | -  | 1.40 | AETL   |
| PMCH-114 Bt2             | -                                                       | 0.50 | 1.30 | 1.13 | -  | 0.98 | BETL   |
| RSCH-119 BGII            | -                                                       | 0.33 | 1.63 | 0.87 | -  | 0.94 | BETL   |
| SBCH-4145                | -                                                       | 0.33 | 1.40 | 0.40 | -  | 0.71 | BETL   |
| Core 105 BGII            | -                                                       | 0.50 | 1.33 | 0.53 | -  | 0.79 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                                       | 0.83 | 1.63 | 1.00 | -  | 1.15 | AETL   |
| DC5108 BGII              | -                                                       | 0.33 | 2.30 | 0.80 | -  | 1.14 | AETL   |
| KCH9267 BGII             | -                                                       | 0.33 | 1.63 | 0.87 | -  | 0.94 | BETL   |
| SBCH-2142                | -                                                       | 0.67 | 2.30 | 0.40 | -  | 1.12 | AETL   |
| SP 7705 BGII             | -                                                       | 0.17 | 1.97 | 0.47 | -  | 0.87 | BETL   |
| BIOSEED 6901 BGII        | -                                                       | 1.67 | 1.63 | 0.27 | -  | 1.19 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # based on 5 observations



**Table: Initial H X H trial in South Zone under Protected Conditions – Green Boll damage due to ABW/SBW/TC**

| Name of Entry            | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |      | Remark |
|--------------------------|-----------------------------------------|------|----|------|----|------|--------|
|                          | NA                                      | DH   | PE | AD   | MU | Mean |        |
| KCH9268 BGII             | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| KCH9269 BGII             | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RSCH-136 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| PMCH-114 Bt2             | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RSCH-119 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| SBCH-4145                | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Core 105 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| DC5108 BGII              | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| KCH9267 BGII             | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| SBCH-2142                | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| SP 7705 BGII             | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| BIOSEED 6901 BGII        | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Protected Conditions – Green Boll damage (Pink bollworm)**

| Name of Entry            | Green Boll damage (%) /10 bolls destructive sampling |       |    |       |    |       | Remark |
|--------------------------|------------------------------------------------------|-------|----|-------|----|-------|--------|
|                          | NA                                                   | DH    | PE | AD    | MU | Mean  |        |
| KCH9268 BGII             | -                                                    | 5.00  | -  | 6.67  | -  | 5.84  | BETL   |
| SP7679 BGII (ZC 1)       | -                                                    | 8.33  | -  | 12.17 | -  | 10.25 | AETL   |
| KCH9269 BGII             | -                                                    | 16.67 | -  | 9.33  | -  | 13.00 | AETL   |
| RSCH-136 BGII            | -                                                    | 6.67  | -  | 14.67 | -  | 10.67 | AETL   |
| PMCH-114 Bt2             | -                                                    | 11.67 | -  | 20.83 | -  | 16.25 | AETL   |
| RSCH-119 BGII            | -                                                    | 11.67 | -  | 14.67 | -  | 13.17 | AETL   |
| SBCH-4145                | -                                                    | 8.33  | -  | 16.17 | -  | 12.25 | AETL   |
| Core 105 BGII            | -                                                    | 13.33 | -  | 16.67 | -  | 15.00 | AETL   |
| Daftari 615 BG II (ZC 2) | -                                                    | 13.33 | -  | 21.50 | -  | 17.42 | AETL   |
| DC5108 BGII              | -                                                    | 8.33  | -  | 10.50 | -  | 9.42  | BETL   |
| KCH9267 BGII             | -                                                    | 5.00  | -  | 13.17 | -  | 9.09  | BETL   |
| SBCH-2142                | -                                                    | 8.33  | -  | 10.33 | -  | 9.33  | BETL   |
| SP 7705 BGII             | -                                                    | 5.00  | -  | 9.00  | -  | 7.00  | BETL   |
| BIOSEED 6901 BGII        | -                                                    | 18.33 | -  | 8.50  | -  | 13.42 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry            | Open Boll Damage (%) |       |      |       |    |              | Remark |
|--------------------------|----------------------|-------|------|-------|----|--------------|--------|
|                          | NA                   | DH    | PE   | AD    | MU | Mean         |        |
| KCH9268 BGII             | -                    | 9.96  | 6.00 | 9.10  | -  | <b>8.35</b>  |        |
| SP7679 BGII (ZC 1)       | -                    | 10.84 | 9.00 | 15.77 | -  | <b>11.87</b> |        |
| KCH9269 BGII             | -                    | 15.36 | 8.00 | 11.93 | -  | <b>11.76</b> |        |
| RSCH-136 BGII            | -                    | 8.42  | 4.00 | 16.78 | -  | <b>9.73</b>  |        |
| PMCH-114 Bt2             | -                    | 9.15  | 4.00 | 11.75 | -  | <b>8.30</b>  |        |
| RSCH-119 BGII            | -                    | 8.01  | 7.00 | 12.29 | -  | <b>9.10</b>  |        |
| SBCH-4145                | -                    | 10.46 | 4.00 | 10.02 | -  | <b>8.16</b>  |        |
| Core 105 BGII            | -                    | 8.94  | 7.00 | 10.43 | -  | <b>8.79</b>  |        |
| Daftari 615 BG II (ZC 2) | -                    | 9.86  | 6.00 | 12.47 | -  | <b>9.44</b>  |        |
| DC5108 BGII              | -                    | 8.16  | 5.00 | 13.33 | -  | <b>8.83</b>  |        |
| KCH9267 BGII             | -                    | 3.78  | 7.00 | 14.30 | -  | <b>8.36</b>  |        |
| SBCH-2142                | -                    | 8.96  | 5.00 | 11.27 | -  | <b>8.41</b>  |        |
| SP 7705 BGII             | -                    | 3.78  | 6.00 | 11.23 | -  | <b>7.00</b>  |        |
| BIOSEED 6901 BGII        | -                    | 14.59 | 8.00 | 10.43 | -  | <b>11.01</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry            | Locule Damage (%) |       |      |      |    |             | Remark |
|--------------------------|-------------------|-------|------|------|----|-------------|--------|
|                          | NA                | DH    | PE   | AD   | MU | Mean        |        |
| KCH9268 BGII             | -                 | 9.17  | 3.00 | 3.33 | -  | <b>5.17</b> |        |
| SP7679 BGII (ZC 1)       | -                 | 8.50  | 3.00 | 7.33 | -  | <b>6.28</b> |        |
| KCH9269 BGII             | -                 | 11.42 | 2.00 | 8.50 | -  | <b>7.31</b> |        |
| RSCH-136 BGII            | -                 | 5.58  | 1.00 | 7.17 | -  | <b>4.58</b> |        |
| PMCH-114 Bt2             | -                 | 5.92  | 1.00 | 6.50 | -  | <b>4.47</b> |        |
| RSCH-119 BGII            | -                 | 4.67  | 3.00 | 6.50 | -  | <b>4.72</b> |        |
| SBCH-4145                | -                 | 9.08  | 2.00 | 8.67 | -  | <b>6.58</b> |        |
| Core 105 BGII            | -                 | 5.25  | 3.00 | 7.67 | -  | <b>5.31</b> |        |
| Daftari 615 BG II (ZC 2) | -                 | 5.00  | 1.00 | 8.50 | -  | <b>4.83</b> |        |
| DC5108 BGII              | -                 | 4.92  | 2.00 | 6.83 | -  | <b>4.58</b> |        |
| KCH9267 BGII             | -                 | 7.58  | 2.00 | 8.00 | -  | <b>5.86</b> |        |
| SBCH-2142                | -                 | 8.67  | 3.00 | 5.67 | -  | <b>5.78</b> |        |
| SP 7705 BGII             | -                 | 3.42  | 3.00 | 5.33 | -  | <b>3.92</b> |        |
| BIOSEED 6901 BGII        | -                 | 11.75 | 3.00 | 4.50 | -  | <b>6.42</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry            | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|--------------------------|------------------------------------|------|------|------|------|-------------|--------|
|                          | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| KCH9268 BGII             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SP7679 BGII (ZC 1)       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| KCH9269 BGII             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RSCH-136 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| PMCH-114 Bt2             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RSCH-119 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SBCH-4145                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Core 105 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Daftari 615 BG II (ZC 2) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| DC5108 BGII              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| KCH9267 BGII             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SBCH-2142                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SP 7705 BGII             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| BIOSEED 6901 BGII        | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 11(a): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Rainfed (IET-Hybrids RF) under Protected conditions**

**Table 11(b): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Rainfed (IET-Hybrids RF) under Unprotected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | UAS, Dharwad                                                |    |      |    |      |    |      |    |
|        |         |                          | ALS                                                         |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 14     | 56001   | KCH9268 BGII             | 24.4                                                        | R  | 11.6 | R  | 18.7 | R  | 18.7 | R  |
| 7      | 56002   | SP7679 BGII (ZC 1)       | 24.9                                                        | R  | 12.3 | R  | 18.2 | R  | 18.2 | R  |
| 4      | 56003   | KCH9269 BGII             | 26.0                                                        | MR | 11.9 | R  | 18.0 | R  | 18.2 | R  |
| 1      | 56004   | RSCH-136 BGII            | 25.3                                                        | MR | 13.1 | R  | 18.7 | R  | 19.1 | R  |
| 10     | 56005   | PMCH-114 Bt2             | 25.4                                                        | MR | 13.8 | R  | 18.6 | R  | 16.6 | R  |
| 12     | 56006   | RSCH-119 BGII            | 23.9                                                        | R  | 11.7 | R  | 18.6 | R  | 18.6 | R  |
| 5      | 56007   | SBCH-4145                | 23.5                                                        | R  | 12.4 | R  | 19.3 | R  | 18.9 | R  |
| 8      | 56008   | Core 105 BGII            | 22.8                                                        | R  | 11.5 | R  | 18.9 | R  | 21.4 | R  |
| 2      | 56009   | Daftari 615 BG II (ZC 2) | 23.5                                                        | R  | 11.9 | R  | 16.5 | R  | 19.7 | R  |
| 9      | 56010   | DC5108 BGII              | 23.7                                                        | R  | 12.4 | R  | 18.3 | R  | 18.9 | R  |
| 13     | 56011   | KCH9267 BGII             | 23.8                                                        | R  | 11.6 | R  | 17.0 | R  | 18.6 | R  |
| 11     | 56012   | SBCH-2142                | 23.5                                                        | R  | 12.5 | R  | 18.6 | R  | 18.9 | R  |
| 6      | 56013   | SP 7705 BGII             | 23.5                                                        | R  | 12.3 | R  | 18.0 | R  | 18.6 | R  |
| 3      | 56014   | BIOSEED 6901 BGII        | 24.9                                                        | R  | 12.0 | R  | 18.4 | R  | 18.6 | R  |



## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Initial H X H trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry            | Aphid (Average of 3 leaves/plant) |      |      |       |             | Remark |
|--------------------------|-----------------------------------|------|------|-------|-------------|--------|
|                          | DH                                | PE   | AD   | MU    | Mean        |        |
| KCH9268 BGII             | 5.22                              | 3.33 | 1.10 | 6.62  | <b>4.07</b> | BETL   |
| SP7679 BGII (ZC 1)       | 5.13                              | 2.00 | 1.20 | 7.15  | <b>3.87</b> | BETL   |
| KCH9269 BGII             | 4.82                              | 3.67 | 1.37 | 9.92  | <b>4.95</b> | BETL   |
| RSCH-136 BGII            | 7.11                              | 2.67 | 1.18 | 6.75  | <b>4.43</b> | BETL   |
| PMCH-114 Bt2             | 7.62                              | 3.00 | 1.16 | 7.01  | <b>4.70</b> | BETL   |
| RSCH-119 BGII            | 6.82                              | 2.00 | 1.32 | 5.29  | <b>3.86</b> | BETL   |
| SBCH-4145                | 6.80                              | 1.67 | 1.09 | 4.46  | <b>3.50</b> | BETL   |
| Core 105 BGII            | 6.93                              | 4.67 | 1.29 | 6.45  | <b>4.83</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 7.84                              | 2.00 | 1.11 | 12.04 | <b>5.75</b> | BETL   |
| DC5108 BGII              | 7.76                              | 2.00 | 1.03 | 10.19 | <b>5.24</b> | BETL   |
| KCH9267 BGII             | 8.04                              | 1.33 | 1.03 | 4.63  | <b>3.76</b> | BETL   |
| SBCH-2142                | 7.16                              | 3.00 | 1.05 | 3.44  | <b>3.66</b> | BETL   |
| SP 7705 BGII             | 6.91                              | 2.67 | 1.25 | 4.90  | <b>3.93</b> | BETL   |
| BIOSEED 6901 BGII        | 6.89                              | 2.00 | 1.15 | 4.76  | <b>3.70</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Unprotected Conditions –  
Leafhopper**

| Name of Entry            | Leafhopper (Average of 3 leaves/plant) |       |      |      |             | Remark |
|--------------------------|----------------------------------------|-------|------|------|-------------|--------|
|                          | DH                                     | PE    | AD   | MU   | Mean        |        |
| KCH9268 BGII             | 3.20                                   | 12.67 | 1.17 | 2.03 | <b>4.77</b> | BETL   |
| SP7679 BGII (ZC 1)       | 3.29                                   | 17.00 | 0.86 | 4.22 | <b>6.34</b> | AETL   |
| KCH9269 BGII             | 3.40                                   | 10.00 | 1.80 | 1.18 | <b>4.10</b> | BETL   |
| RSCH-136 BGII            | 2.02                                   | 9.00  | 0.47 | 1.35 | <b>3.21</b> | BETL   |
| PMCH-114 Bt2             | 2.96                                   | 12.00 | 0.73 | 2.19 | <b>4.47</b> | BETL   |
| RSCH-119 BGII            | 2.36                                   | 10.67 | 0.27 | 1.86 | <b>3.79</b> | BETL   |
| SBCH-4145                | 2.72                                   | 9.33  | 0.38 | 3.38 | <b>3.95</b> | BETL   |
| Core 105 BGII            | 2.32                                   | 9.00  | 0.44 | 2.36 | <b>3.53</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 3.24                                   | 9.33  | 0.44 | 5.06 | <b>4.52</b> | BETL   |
| DC5108 BGII              | 2.45                                   | 9.33  | 0.55 | 2.02 | <b>3.59</b> | BETL   |
| KCH9267 BGII             | 2.19                                   | 11.00 | 0.17 | 1.86 | <b>3.80</b> | BETL   |
| SBCH-2142                | 2.46                                   | 11.67 | 0.22 | 3.04 | <b>4.35</b> | BETL   |
| SP 7705 BGII             | 1.95                                   | 10.33 | 0.13 | 2.03 | <b>3.61</b> | BETL   |
| BIOSEED 6901 BGII        | 2.42                                   | 10.00 | 0.64 | 1.86 | <b>3.73</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





**Table: Initial H X H trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry            | JIG/plant |    |    |    |      | Remark |
|--------------------------|-----------|----|----|----|------|--------|
|                          | DH        | PE | AD | MU | Mean |        |
| KCH9268 BGII             | I         | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1)       | II        | -  | -  | -  | II   |        |
| KCH9269 BGII             | II        | -  | -  | -  | II   |        |
| RSCH-136 BGII            | I         | -  | -  | -  | I    |        |
| PMCH-114 Bt2             | II        | -  | -  | -  | II   |        |
| RSCH-119 BGII            | I         | -  | -  | -  | I    |        |
| SBCH-4145                | II        | -  | -  | -  | II   |        |
| Core 105 BGII            | II        | -  | -  | -  | II   |        |
| Daftari 615 BG II (ZC 2) | II        | -  | -  | -  | II   |        |
| DC5108 BGII              | I         | -  | -  | -  | I    |        |
| KCH9267 BGII             | I         | -  | -  | -  | I    |        |
| SBCH-2142                | I         | -  | -  | -  | I    |        |
| SP 7705 BGII             | I         | -  | -  | -  | I    |        |
| BIOSEED 6901 BGII        | I         | -  | -  | -  | I    |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry            | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|--------------------------|------------------------------------|------|------|------|-------------|-------------|
|                          | DH                                 | PE   | AD   | MU   | Mean        |             |
| KCH9268 BGII             | 15.96                              | 4.00 | 0.30 | 0.88 | <b>5.28</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | 17.38                              | 6.33 | 1.75 | 0.88 | <b>6.59</b> | <b>BETL</b> |
| KCH9269 BGII             | 14.29                              | 2.33 | 1.73 | 2.22 | <b>5.14</b> | <b>BETL</b> |
| RSCH-136 BGII            | 14.18                              | 5.33 | 1.76 | 3.47 | <b>6.18</b> | <b>BETL</b> |
| PMCH-114 Bt2             | 13.04                              | 3.67 | 1.42 | 4.99 | <b>5.78</b> | <b>BETL</b> |
| RSCH-119 BGII            | 15.78                              | 2.67 | 1.71 | 3.41 | <b>5.89</b> | <b>BETL</b> |
| SBCH-4145                | 15.20                              | 2.00 | 1.67 | 0.76 | <b>4.91</b> | <b>BETL</b> |
| Core 105 BGII            | 15.84                              | 6.00 | 1.58 | 1.13 | <b>6.14</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | 19.26                              | 3.00 | 1.40 | 1.73 | <b>6.35</b> | <b>BETL</b> |
| DC5108 BGII              | 15.71                              | 2.33 | 1.69 | 4.29 | <b>6.00</b> | <b>BETL</b> |
| KCH9267 BGII             | 17.13                              | 2.33 | 1.09 | 1.92 | <b>5.62</b> | <b>BETL</b> |
| SBCH-2142                | 18.00                              | 2.00 | 1.53 | 4.50 | <b>6.51</b> | <b>BETL</b> |
| SP 7705 BGII             | 13.49                              | 2.67 | 0.09 | 1.92 | <b>4.54</b> | <b>BETL</b> |
| BIOSEED 6901 BGII        | 14.53                              | 3.67 | 2.35 | 5.02 | <b>6.39</b> | <b>BETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry            | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|--------------------------|--------------------------------------|------|------|------|-------------|--------|
|                          | DH                                   | PE   | AD   | MU   | Mean        |        |
| KCH9268 BGII             | 1.53                                 | 3.00 | 0.27 | 1.06 | <b>1.47</b> | BETL   |
| SP7679 BGII (ZC 1)       | 1.30                                 | 1.67 | 0.27 | 1.37 | <b>1.15</b> | BETL   |
| KCH9269 BGII             | 1.30                                 | 1.00 | 0.29 | 0.47 | <b>0.76</b> | BETL   |
| RSCH-136 BGII            | 0.72                                 | 3.67 | 0.18 | 0.79 | <b>1.34</b> | BETL   |
| PMCH-114 Bt2             | 1.23                                 | 2.33 | 0.58 | 0.74 | <b>1.22</b> | BETL   |
| RSCH-119 BGII            | 1.56                                 | 3.00 | 0.18 | 0.74 | <b>1.37</b> | BETL   |
| SBCH-4145                | 1.13                                 | 2.67 | 0.11 | 1.22 | <b>1.28</b> | BETL   |
| Core 105 BGII            | 0.89                                 | 2.00 | 0.18 | 1.32 | <b>1.10</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 0.90                                 | 2.00 | 0.31 | 0.32 | <b>0.88</b> | BETL   |
| DC5108 BGII              | 0.41                                 | 2.33 | 0.27 | 0.32 | <b>0.83</b> | BETL   |
| KCH9267 BGII             | 1.06                                 | 2.33 | 0.15 | 1.16 | <b>1.18</b> | BETL   |
| SBCH-2142                | 1.08                                 | 3.00 | 0.22 | 1.06 | <b>1.34</b> | BETL   |
| SP 7705 BGII             | 0.83                                 | 2.67 | 0.18 | 0.58 | <b>1.07</b> | BETL   |
| BIOSEED 6901 BGII        | 1.01                                 | 3.67 | 0.35 | 0.53 | <b>1.39</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry            | Natural Enemies (No./plant) |      |      |    |             | Remark |
|--------------------------|-----------------------------|------|------|----|-------------|--------|
|                          | DH                          | PE   | AD   | MU | Mean        |        |
| KCH9268 BGII             | 0.78                        | 0.00 | 0.20 | -  | <b>0.33</b> |        |
| SP7679 BGII (ZC 1)       | 0.78                        | 0.00 | 0.00 | -  | <b>0.26</b> |        |
| KCH9269 BGII             | 0.98                        | 0.00 | 0.07 | -  | <b>0.35</b> |        |
| RSCH-136 BGII            | 0.82                        | 0.00 | 0.00 | -  | <b>0.27</b> |        |
| PMCH-114 Bt2             | 0.22                        | 0.00 | 0.00 | -  | <b>0.07</b> |        |
| RSCH-119 BGII            | 0.76                        | 0.00 | 0.00 | -  | <b>0.25</b> |        |
| SBCH-4145                | 0.40                        | 0.00 | 0.00 | -  | <b>0.13</b> |        |
| Core 105 BGII            | 0.56                        | 0.00 | 0.07 | -  | <b>0.21</b> |        |
| Daftari 615 BG II (ZC 2) | 0.49                        | 0.00 | 0.00 | -  | <b>0.16</b> |        |
| DC5108 BGII              | 0.51                        | 0.00 | 0.13 | -  | <b>0.21</b> |        |
| KCH9267 BGII             | 0.29                        | 0.00 | 0.13 | -  | <b>0.14</b> |        |
| SBCH-2142                | 0.38                        | 0.00 | 0.13 | -  | <b>0.17</b> |        |
| SP 7705 BGII             | 0.38                        | 0.00 | 0.13 | -  | <b>0.17</b> |        |
| BIOSEED 6901 BGII        | 0.49                        | 0.00 | 0.07 | -  | <b>0.19</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry            | <i>Helicoverpa armigera</i> (No. /5plants) |      |      |    |      | Remark |
|--------------------------|--------------------------------------------|------|------|----|------|--------|
|                          | DH                                         | PE   | AD   | MU | Mean |        |
| KCH9268 BGII             | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9269 BGII             | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-136 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PMCH-114 Bt2             | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-119 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-4145                | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Core 105 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5108 BGII              | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9267 BGII             | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-2142                | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP 7705 BGII             | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIOSEED 6901 BGII        | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Unprotected Conditions – Spotted/ Spiny Bollworms**

| Name of Entry            | Spotted Bollworms (No. /5 plants) |      |      |    |      | Remark |
|--------------------------|-----------------------------------|------|------|----|------|--------|
|                          | DH                                | PE   | AD   | MU | Mean |        |
| KCH9268 BGII             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9269 BGII             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-136 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PMCH-114 Bt2             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH-119 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-4145                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Core 105 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5108 BGII              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH9267 BGII             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SBCH-2142                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP 7705 BGII             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIOSEED 6901 BGII        | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry            | <i>Spodoptera litura</i> (No. /5 plants) |      |      |    |             | Remark |
|--------------------------|------------------------------------------|------|------|----|-------------|--------|
|                          | DH                                       | PE   | AD   | MU | Mean        |        |
| KCH9268 BGII             | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1)       | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| KCH9269 BGII             | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| RSCH-136 BGII            | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| PMCH-114 Bt2             | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| RSCH-119 BGII            | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SBCH-4145                | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Core 105 BGII            | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| DC5108 BGII              | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| KCH9267 BGII             | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SBCH-2142                | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SP 7705 BGII             | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| BIOSEED 6901 BGII        | 0.00                                     | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry            | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |    |             | Remark |
|--------------------------|---------------------------------------------------------|------|------|----|-------------|--------|
|                          | DH                                                      | PE   | AD#  | MU | Mean        |        |
| KCH9268 BGII             | 1.67                                                    | 1.78 | 0.20 | -  | <b>1.22</b> | AETL   |
| SP7679 BGII (ZC 1)       | 1.33                                                    | 2.45 | 0.40 | -  | <b>1.39</b> | AETL   |
| KCH9269 BGII             | 3.17                                                    | 2.12 | 0.00 | -  | <b>1.76</b> | AETL   |
| RSCH-136 BGII            | 1.67                                                    | 1.78 | 0.60 | -  | <b>1.35</b> | AETL   |
| PMCH-114 Bt2             | 3.33                                                    | 1.78 | 0.00 | -  | <b>1.70</b> | AETL   |
| RSCH-119 BGII            | 1.83                                                    | 1.55 | 1.40 | -  | <b>1.59</b> | AETL   |
| SBCH-4145                | 2.17                                                    | 1.48 | 0.40 | -  | <b>1.35</b> | AETL   |
| Core 105 BGII            | 1.67                                                    | 1.78 | 0.80 | -  | <b>1.42</b> | AETL   |
| Daftari 615 BG II (ZC 2) | 1.17                                                    | 2.45 | 1.20 | -  | <b>1.61</b> | AETL   |
| DC5108 BGII              | 1.00                                                    | 2.45 | 0.20 | -  | <b>1.22</b> | AETL   |
| KCH9267 BGII             | 1.00                                                    | 1.45 | 0.20 | -  | <b>0.88</b> | BETL   |
| SBCH-2142                | 1.00                                                    | 1.78 | 0.00 | -  | <b>0.93</b> | BETL   |
| SP 7705 BGII             | 1.17                                                    | 2.78 | 0.00 | -  | <b>1.32</b> | AETL   |
| BIOSEED 6901 BGII        | 3.50                                                    | 1.45 | 1.00 | -  | <b>1.98</b> | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # based on 5 observations



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Green Boll  
Damage due to ABW/SBW/TC**

| Name of Entry            | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |             | Remark      |
|--------------------------|-----------------------------------------|----|------|----|-------------|-------------|
|                          | DH                                      | PE | AD   | MU | Mean        |             |
| KCH9268 BGII             | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| KCH9269 BGII             | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| RSCH-136 BGII            | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| PMCH-114 Bt2             | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| RSCH-119 BGII            | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| SBCH-4145                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Core 105 BGII            | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| DC5108 BGII              | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| KCH9267 BGII             | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| SBCH-2142                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| SP 7705 BGII             | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| BIOSEED 6901 BGII        | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |

**DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**

**Table: Initial H X H trial in South Zone under Unprotected Conditions – Green Boll  
Damage (Pink Bollworm)**

| Name of Entry            | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |              | Remark      |
|--------------------------|-------------------------------------------------------|----|-------|----|--------------|-------------|
|                          | DH                                                    | PE | AD    | MU | Mean         |             |
| KCH9268 BGII             | 15.00                                                 | -  | 22.00 | -  | <b>18.50</b> | <b>AETL</b> |
| SP7679 BGII (ZC 1)       | 16.67                                                 | -  | 16.00 | -  | <b>16.34</b> | <b>AETL</b> |
| KCH9269 BGII             | 30.00                                                 | -  | 20.00 | -  | <b>25.00</b> | <b>AETL</b> |
| RSCH-136 BGII            | 21.67                                                 | -  | 18.00 | -  | <b>19.84</b> | <b>AETL</b> |
| PMCH-114 Bt2             | 21.67                                                 | -  | 28.00 | -  | <b>24.84</b> | <b>AETL</b> |
| RSCH-119 BGII            | 15.00                                                 | -  | 30.00 | -  | <b>22.50</b> | <b>AETL</b> |
| SBCH-4145                | 13.33                                                 | -  | 26.00 | -  | <b>19.67</b> | <b>AETL</b> |
| Core 105 BGII            | 23.33                                                 | -  | 34.00 | -  | <b>28.67</b> | <b>AETL</b> |
| Daftari 615 BG II (ZC 2) | 18.33                                                 | -  | 24.00 | -  | <b>21.17</b> | <b>AETL</b> |
| DC5108 BGII              | 10.00                                                 | -  | 24.00 | -  | <b>17.00</b> | <b>AETL</b> |
| KCH9267 BGII             | 10.00                                                 | -  | 18.00 | -  | <b>14.00</b> | <b>AETL</b> |
| SBCH-2142                | 16.67                                                 | -  | 26.00 | -  | <b>21.34</b> | <b>AETL</b> |
| SP 7705 BGII             | 10.00                                                 | -  | 22.00 | -  | <b>16.00</b> | <b>AETL</b> |
| BIOSEED 6901 BGII        | 41.67                                                 | -  | 34.00 | -  | <b>37.84</b> | <b>AETL</b> |

**DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**



**Table: Initial H X H trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry            | Open Boll Damage (%) |       |       |    |              | Remark |
|--------------------------|----------------------|-------|-------|----|--------------|--------|
|                          | DH                   | PE    | AD    | MU | Mean         |        |
| KCH9268 BGII             | 15.17                | 12.00 | 10.00 | -  | <b>12.39</b> |        |
| SP7679 BGII (ZC 1)       | 18.50                | 13.00 | 10.00 | -  | <b>13.83</b> |        |
| KCH9269 BGII             | 19.42                | 15.00 | 12.00 | -  | <b>15.47</b> |        |
| RSCH-136 BGII            | 10.25                | 8.00  | 10.00 | -  | <b>9.42</b>  |        |
| PMCH-114 Bt2             | 10.75                | 9.00  | 15.00 | -  | <b>11.58</b> |        |
| RSCH-119 BGII            | 9.42                 | 14.00 | 20.00 | -  | <b>14.47</b> |        |
| SBCH-4145                | 10.25                | 10.00 | 20.00 | -  | <b>13.42</b> |        |
| Core 105 BGII            | 14.67                | 15.00 | 20.00 | -  | <b>16.56</b> |        |
| Daftari 615 BG II (ZC 2) | 11.75                | 13.00 | 15.00 | -  | <b>13.25</b> |        |
| DC5108 BGII              | 8.92                 | 11.00 | 15.00 | -  | <b>11.64</b> |        |
| KCH9267 BGII             | 9.67                 | 14.00 | 10.00 | -  | <b>11.22</b> |        |
| SBCH-2142                | 12.67                | 10.00 | 15.00 | -  | <b>12.56</b> |        |
| SP 7705 BGII             | 6.25                 | 12.00 | 15.00 | -  | <b>11.08</b> |        |
| BIOSEED 6901 BGII        | 19.25                | 16.00 | 20.00 | -  | <b>18.42</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry            | Locule Damage (%) |      |       |    |              | Remark |
|--------------------------|-------------------|------|-------|----|--------------|--------|
|                          | DH                | PE   | AD    | MU | Mean         |        |
| KCH9268 BGII             | 12.67             | 5.00 | 12.00 | -  | <b>9.89</b>  |        |
| SP7679 BGII (ZC 1)       | 16.38             | 6.00 | 9.50  | -  | <b>10.63</b> |        |
| KCH9269 BGII             | 18.38             | 7.00 | 13.00 | -  | <b>12.79</b> |        |
| RSCH-136 BGII            | 9.96              | 4.00 | 16.00 | -  | <b>9.99</b>  |        |
| PMCH-114 Bt2             | 9.54              | 3.00 | 18.50 | -  | <b>10.35</b> |        |
| RSCH-119 BGII            | 8.17              | 4.00 | 22.50 | -  | <b>11.56</b> |        |
| SBCH-4145                | 12.17             | 3.00 | 17.50 | -  | <b>10.89</b> |        |
| Core 105 BGII            | 9.92              | 4.00 | 25.00 | -  | <b>12.97</b> |        |
| Daftari 615 BG II (ZC 2) | 8.42              | 4.00 | 16.50 | -  | <b>9.64</b>  |        |
| DC5108 BGII              | 8.17              | 3.00 | 16.00 | -  | <b>9.06</b>  |        |
| KCH9267 BGII             | 8.83              | 3.00 | 13.00 | -  | <b>8.28</b>  |        |
| SBCH-2142                | 11.08             | 4.00 | 17.00 | -  | <b>10.69</b> |        |
| SP 7705 BGII             | 5.08              | 3.00 | 12.00 | -  | <b>6.69</b>  |        |
| BIOSEED 6901 BGII        | 16.67             | 3.00 | 24.50 | -  | <b>14.72</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

Table 11(c): Initial Evaluation Trial of Intra-Hirsutum Hybrids – Rainfed (IET-Hybrids RF) under Protected and Unprotected conditions

| Code -I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Protected conditions |    |     |     |     |     |     |     | Average PDI & Disease Reaction (DR): Unprotected conditions |     |      |     |      |     |     |     |
|---------|---------|--------------------------|-----------------------------------------------------------|----|-----|-----|-----|-----|-----|-----|-------------------------------------------------------------|-----|------|-----|------|-----|-----|-----|
|         |         |                          | Kaveri, Hyderabad                                         |    |     |     |     |     |     |     | Kaveri, Hyderabad                                           |     |      |     |      |     |     |     |
|         |         |                          | ALS                                                       |    | GM  |     | BLB |     | TSV |     | ALS                                                         |     | GM   |     | BLB  |     | TSV |     |
|         |         |                          | PDI                                                       | DR | PDI | D R | PDI | D R | PDI | D R | PDI                                                         | D R | PDI  | D R | PDI  | D R | PDI | D R |
| 14      | 56001   | KCH9268 BGII             | 4.3                                                       | R  | 4.0 | R   | 2.3 | R   | 1.0 | R   | 10.0                                                        | R   | 7.5  | R   | 11.0 | R   | 2.5 | R   |
| 7       | 56002   | SP7679 BGII (ZC 1)       | 9.3                                                       | R  | 8.9 | R   | 7.6 | R   | 2.2 | R   | 16.8                                                        | R   | 13.0 | R   | 17.2 | R   | 3.3 | R   |
| 4       | 56003   | KCH9269 BGII             | 4.4                                                       | R  | 4.1 | R   | 1.9 | R   | 0.9 | R   | 10.0                                                        | R   | 7.5  | R   | 10.3 | R   | 2.8 | R   |
| 1       | 56004   | RSCH-136 BGII            | 7.0                                                       | R  | 7.3 | R   | 5.3 | R   | 2.5 | R   | 13.7                                                        | R   | 7.5  | R   | 13.3 | R   | 2.5 | R   |
| 10      | 56005   | PMCH-114 Bt2             | 4.2                                                       | R  | 6.1 | R   | 4.3 | R   | 1.9 | R   | 12.0                                                        | R   | 9.3  | R   | 13.7 | R   | 3.3 | R   |
| 12      | 56006   | RSCH-119 BGII            | 10.9                                                      | R  | 7.2 | R   | 3.8 | R   | 1.8 | R   | 17.5                                                        | R   | 9.3  | R   | 13.3 | R   | 3.3 | R   |
| 5       | 56007   | SBCH-4145                | 10.6                                                      | R  | 8.5 | R   | 3.3 | R   | 2.3 | R   | 17.0                                                        | R   | 9.0  | R   | 14.3 | R   | 4.4 | R   |
| 8       | 56008   | Core 105 BGII            | 8.4                                                       | R  | 8.8 | R   | 2.3 | R   | 2.2 | R   | 15.3                                                        | R   | 9.8  | R   | 15.2 | R   | 4.0 | R   |
| 2       | 56009   | Daftari 615 BG II (ZC 2) | 9.6                                                       | R  | 8.1 | R   | 5.0 | R   | 1.8 | R   | 17.1                                                        | R   | 10.8 | R   | 17.5 | R   | 4.3 | R   |
| 9       | 56010   | DC5108 BGII              | 8.6                                                       | R  | 5.6 | R   | 4.2 | R   | 1.6 | R   | 13.0                                                        | R   | 9.5  | R   | 18.0 | R   | 4.1 | R   |
| 13      | 56011   | KCH9267 BGII             | 4.2                                                       | R  | 5.0 | R   | 2.4 | R   | 0.8 | R   | 10.5                                                        | R   | 7.5  | R   | 10.8 | R   | 2.5 | R   |
| 11      | 56012   | SBCH-2142                | 9.0                                                       | R  | 9.2 | R   | 6.4 | R   | 3.0 | R   | 15.7                                                        | R   | 12.3 | R   | 17.3 | R   | 4.4 | R   |
| 6       | 56013   | SP 7705 BGII             | 5.6                                                       | R  | 9.4 | R   | 7.2 | R   | 3.0 | R   | 13.1                                                        | R   | 13.3 | R   | 15.3 | R   | 3.1 | R   |
| 3       | 56014   | BIOSEED 6901 BGII        | 9.0                                                       | R  | 9.2 | R   | 4.8 | R   | 2.5 | R   | 15.6                                                        | R   | 7.4  | R   | 16.0 | R   | 2.6 | R   |

## Advanced Evaluation Trial (I) of Intra-Hirsutum Bt Hybrids - Rainfed

### *Constitution of Trial*

The trial was constituted with 12 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

| S. No. | Code-I    | Code -II     | Entries                         | Sponsored by                  |
|--------|-----------|--------------|---------------------------------|-------------------------------|
| 1      | 9         | 56031        | MSCH 639 BGII                   | Mudra Seed Sciences Pvt Ltd   |
| 2      | 13        | 56032        | RSCH 999 BGII                   | Royal Seeds Pvt Ltd           |
| 3      | 1         | 56033        | RCH 1116 BGII                   | Rasi Seeds                    |
| 4      | 6         | 56034        | US 720 BGII                     | Seedworks                     |
| 5      | 12        | 56035        | KCH 9298 BGII                   | Kaveri Seed Co Ltd            |
| 6      | 5         | 56036        | 24SS66 BGII                     | Sri Sathya seeds              |
| 7      | 10        | 56037        | GBCH 6666 BGII                  | Green Gold seeds              |
| 8      | 7         | 56038        | CORE 103 BGII                   | Coregenes                     |
| 9      | <b>3</b>  | <b>56039</b> | <b>Daftari 615 BG II (ZC 2)</b> |                               |
| 10     | 11        | 56040        | RSCH 369 BGII                   | Royal Seeds Pvt Ltd           |
| 11     | 8         | 56041        | RCH 1121 BGII                   | Rasi Seeds                    |
| 12     | 4         | 56042        | KCH 9294 BGII                   | Kaveri Seed Co Ltd            |
| 13     | 2         | 56043        | CCH 529 Bt2                     | Caspian Seeds Private Limited |
| 14     | <b>14</b> | <b>56044</b> | <b>SP7679 BGII (ZC 1)</b>       |                               |

The trial was conducted in seven locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, Perambalur, Hyderabad (Kaveri), and Warangal (Core seeds)\*.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Recommended spacing for the hybrid has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications





**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|
| 1      | MSCH 639 BGII                   | 145.7   | 186.5    | 100.4   | 187.7      | 140.1              | <b>152.1</b> |
| 2      | RSCH 999 BGII                   | 133.0   | 190.3    | 108.7   | 178.9      | 148.9              | <b>152.0</b> |
| 3      | RCH 1116 BGII                   | 128.9   | 184.7    | 97.9    | 164.1      | 136.5              | <b>142.4</b> |
| 4      | US 720 BGII                     | 141.7   | 179.4    | 102.9   | 205.2      | 150.4              | <b>155.9</b> |
| 5      | KCH 9298 BGII                   | 160.3   | 193.9    | 120.9   | 199.1      | 139.5              | <b>162.7</b> |
| 6      | 24SS66 BGII                     | 154.5   | 224.0    | 115.6   | 212.9      | 136.1              | <b>168.6</b> |
| 7      | GBCH 6666 BGII                  | 147.6   | 194.3    | 108.9   | 169.1      | 149.1              | <b>153.8</b> |
| 8      | CORE 103 BGII                   | 179.9   | 220.3    | 111.1   | 213.2      | 165.9              | <b>178.1</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 146.3   | 191.1    | 114.0   | 199.9      | 150.1              | <b>160.3</b> |
| 10     | RSCH 369 BGII                   | 142.6   | 185.9    | 103.6   | 180.9      | 141.3              | <b>150.9</b> |
| 11     | RCH 1121 BGII                   | 149.9   | 198.3    | 106.3   | 168.0      | 142.3              | <b>153.0</b> |
| 12     | KCH 9294 BGII                   | 149.7   | 204.5    | 102.8   | 196.1      | 149.9              | <b>160.6</b> |
| 13     | CCH 529 Bt2                     | 167.3   | 200.5    | 116.6   | 208.6      | 150.3              | <b>168.7</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 137.5   | 181.6    | 117.3   | 189.3      | 139.5              | <b>153.0</b> |
|        | CD @ 5%                         | 16.8    | 24.4     | 14.2    | 33.4       | 6.0                |              |
|        | CV %                            | 6.7     | 7.4      | 7.8     | 11.0       | 14.7               |              |

**Number of monopodia in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | MSCH 639 BGII                   | 0.5     | 1.6      | 1.4     | 1.9        | 1.2                | <b>1.3</b> |
| 2      | RSCH 999 BGII                   | 0.7     | 1.9      | 2.9     | 1.9        | 1.1                | <b>1.7</b> |
| 3      | RCH 1116 BGII                   | 1.3     | 1.5      | 2.1     | 2.1        | 1.6                | <b>1.7</b> |
| 4      | US 720 BGII                     | 0.5     | 1.3      | 1.9     | 2.6        | 1.1                | <b>1.5</b> |
| 5      | KCH 9298 BGII                   | 0.3     | 1.3      | 1.7     | 1.7        | 1.1                | <b>1.2</b> |
| 6      | 24SS66 BGII                     | 1.1     | 2.1      | 3.1     | 2.5        | 1.1                | <b>2.0</b> |
| 7      | GBCH 6666 BGII                  | 0.6     | 1.7      | 1.9     | 2.9        | 1.3                | <b>1.7</b> |
| 8      | CORE 103 BGII                   | 0.7     | 0.9      | 1.4     | 2.0        | 1.2                | <b>1.2</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 1.6     | 1.3      | 1.8     | 1.6        | 1.2                | <b>1.5</b> |
| 10     | RSCH 369 BGII                   | 0.5     | 1.8      | 1.9     | 1.9        | 1.2                | <b>1.5</b> |
| 11     | RCH 1121 BGII                   | 1.5     | 2.5      | 2.9     | 2.2        | 2.1                | <b>2.2</b> |
| 12     | KCH 9294 BGII                   | 0.9     | 2.1      | 2.9     | 2.3        | 1.1                | <b>1.9</b> |
| 13     | CCH 529 Bt2                     | 1.3     | 2.0      | 2.8     | 2.5        | 1.1                | <b>1.9</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 1.1     | 2.1      | 1.2     | 3.7        | 1.7                | <b>2.0</b> |
|        | CD @ 5%                         | 0.5     | 0.9      | 0.6     | 0.8        | 13.6               |            |
|        | CV %                            | 38.8    | 29.9     | 17.0    | 20.8       | 0.3                |            |



**Number of sympodia in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 12.7    | 20.7     | 15.4    | 27.6       | 17.2               | <b>18.7</b> |
| 2      | RSCH 999 BGII                   | 11.9    | 21.9     | 18.1    | 28.0       | 19.9               | <b>20.0</b> |
| 3      | RCH 1116 BGII                   | 11.9    | 23.4     | 17.2    | 24.8       | 18.1               | <b>19.1</b> |
| 4      | US 720 BGII                     | 12.9    | 21.1     | 17.7    | 24.2       | 22.9               | <b>19.8</b> |
| 5      | KCH 9298 BGII                   | 13.1    | 22.2     | 20.0    | 25.1       | 20.7               | <b>20.2</b> |
| 6      | 24SS66 BGII                     | 12.9    | 23.7     | 17.7    | 23.8       | 18.4               | <b>19.3</b> |
| 7      | GBCH 6666 BGII                  | 11.0    | 21.3     | 18.1    | 22.1       | 18.1               | <b>18.1</b> |
| 8      | CORE 103 BGII                   | 16.1    | 23.3     | 17.8    | 25.0       | 20.1               | <b>20.5</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 13.3    | 20.7     | 19.0    | 24.1       | 17.6               | <b>18.9</b> |
| 10     | RSCH 369 BGII                   | 13.9    | 20.9     | 16.0    | 26.0       | 19.5               | <b>19.3</b> |
| 11     | RCH 1121 BGII                   | 10.4    | 22.5     | 16.7    | 23.4       | 21.4               | <b>18.9</b> |
| 12     | KCH 9294 BGII                   | 9.9     | 22.0     | 18.1    | 24.6       | 22.9               | <b>19.5</b> |
| 13     | CCH 529 Bt2                     | 13.1    | 20.3     | 17.7    | 25.3       | 16.7               | <b>18.6</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 12.7    | 19.7     | 19.9    | 22.3       | 20.1               | <b>18.9</b> |
|        | CD @ 5%                         | 2.2     | 2.0      | 2.8     | 2.9        | 11.5               |             |
|        | CV %                            | 10.4    | 5.5      | 9.2     | 7.3        | 3.8                |             |

**Boll weight (g) in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | MSCH 639 BGII                   | 5.1     | 5.8      | 5.2     | 5.7        | 6.2                | <b>5.6</b> |
| 2      | RSCH 999 BGII                   | 4.8     | 5.2      | 5.5     | 6.5        | 5.4                | <b>5.5</b> |
| 3      | RCH 1116 BGII                   | 4.6     | 5.2      | 4.8     | 6.1        | 5.4                | <b>5.2</b> |
| 4      | US 720 BGII                     | 4.9     | 6.2      | 5.2     | 6.8        | 5.9                | <b>5.8</b> |
| 5      | KCH 9298 BGII                   | 4.6     | 5.0      | 4.5     | 5.8        | 5.2                | <b>5.0</b> |
| 6      | 24SS66 BGII                     | 4.3     | 5.0      | 5.4     | 6.6        | 4.6                | <b>5.2</b> |
| 7      | GBCH 6666 BGII                  | 5.2     | 6.3      | 6.4     | 7.0        | 5.8                | <b>6.1</b> |
| 8      | CORE 103 BGII                   | 5.5     | 5.1      | 4.7     | 5.6        | 5.7                | <b>5.3</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 5.3     | 5.8      | 4.4     | 8.2        | 5.9                | <b>5.9</b> |
| 10     | RSCH 369 BGII                   | 5.1     | 5.7      | 5.3     | 6.4        | 5.9                | <b>5.7</b> |
| 11     | RCH 1121 BGII                   | 5.5     | 5.6      | 6.1     | 6.8        | 5.3                | <b>5.9</b> |
| 12     | KCH 9294 BGII                   | 5.1     | 6.0      | 5.5     | 7.1        | 6.3                | <b>6.0</b> |
| 13     | CCH 529 Bt2                     | 5.3     | 5.6      | 5.7     | 7.0        | 5.9                | <b>5.9</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 5.2     | 5.5      | 5.4     | 6.2        | 5.8                | <b>5.6</b> |
|        | CD @ 5%                         | 0.6     | 0.7      | 0.6     | 0.7        | 4.8                |            |
|        | CV %                            | 7.0     | 7.1      | 7.0     | 7.0        | 0.5                |            |



**Number of bolls / plant in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 27.2    | 19.9     | 22.7    | 38.8       | 29.9               | <b>27.7</b> |
| 2      | RSCH 999 BGII                   | 23.6    | 19.4     | 20.4    | 39.7       | 29.1               | <b>26.4</b> |
| 3      | RCH 1116 BGII                   | 23.1    | 20.7     | 23.9    | 42.0       | 30.4               | <b>28.0</b> |
| 4      | US 720 BGII                     | 23.5    | 19.2     | 19.2    | 41.1       | 26.6               | <b>25.9</b> |
| 5      | KCH 9298 BGII                   | 23.8    | 22.3     | 25.7    | 40.2       | 36.3               | <b>29.7</b> |
| 6      | 24SS66 BGII                     | 28.8    | 19.1     | 30.7    | 38.4       | 30.1               | <b>29.4</b> |
| 7      | GBCH 6666 BGII                  | 17.0    | 17.7     | 23.0    | 40.8       | 31.2               | <b>25.9</b> |
| 8      | CORE 103 BGII                   | 19.4    | 18.4     | 24.0    | 36.7       | 29.0               | <b>25.5</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 20.1    | 19.8     | 21.7    | 29.3       | 27.1               | <b>23.6</b> |
| 10     | RSCH 369 BGII                   | 22.5    | 18.9     | 18.8    | 35.5       | 27.6               | <b>24.7</b> |
| 11     | RCH 1121 BGII                   | 18.8    | 18.4     | 15.9    | 32.1       | 30.8               | <b>23.2</b> |
| 12     | KCH 9294 BGII                   | 19.9    | 16.5     | 17.9    | 30.9       | 32.1               | <b>23.5</b> |
| 13     | CCH 529 Bt2                     | 26.4    | 17.0     | 25.9    | 35.5       | 28.6               | <b>26.7</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 22.8    | 17.9     | 14.4    | 33.2       | 28.1               | <b>23.3</b> |
|        | CD @ 5%                         | 4.8     | 4.6      | 4.8     | 7.9        | 7.1                |             |
|        | CV %                            | 12.5    | 14.4     | 13.3    | 13.4       | 3.5                |             |

**Number of bolls / sq.m. in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 90.7    | 77.0     | 41.9    | 155.0      | 90.7               | <b>91.1</b> |
| 2      | RSCH 999 BGII                   | 82.0    | 79.0     | 37.8    | 154.7      | 88.1               | <b>88.3</b> |
| 3      | RCH 1116 BGII                   | 81.7    | 71.3     | 44.2    | 168.0      | 92.1               | <b>91.5</b> |
| 4      | US 720 BGII                     | 73.0    | 91.3     | 35.6    | 158.3      | 80.6               | <b>87.8</b> |
| 5      | KCH 9298 BGII                   | 79.7    | 91.3     | 47.5    | 152.3      | 109.9              | <b>96.1</b> |
| 6      | 24SS66 BGII                     | 91.7    | 67.0     | 56.7    | 150.3      | 91.3               | <b>91.4</b> |
| 7      | GBCH 6666 BGII                  | 60.7    | 76.7     | 42.6    | 154.3      | 94.5               | <b>85.8</b> |
| 8      | CORE 103 BGII                   | 71.3    | 70.7     | 44.4    | 142.0      | 87.9               | <b>83.3</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 73.7    | 80.0     | 40.1    | 117.3      | 82.2               | <b>78.7</b> |
| 10     | RSCH 369 BGII                   | 82.0    | 74.7     | 34.7    | 134.7      | 83.6               | <b>81.9</b> |
| 11     | RCH 1121 BGII                   | 56.0    | 59.0     | 29.4    | 128.0      | 93.3               | <b>73.1</b> |
| 12     | KCH 9294 BGII                   | 77.7    | 55.0     | 33.1    | 126.0      | 97.4               | <b>77.8</b> |
| 13     | CCH 529 Bt2                     | 103.0   | 71.7     | 47.9    | 142.0      | 86.7               | <b>90.3</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 81.3    | 69.0     | 26.7    | 125.7      | 85.1               | <b>77.6</b> |
|        | CD @ 5%                         | 12.3    | 14.8     | 9.0     | 27.9       | 7.1                |             |
|        | CV %                            | 9.2     | 11.9     | 13.3    | 12.2       | 10.7               |             |



**Lint Index (g) in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | MSCH 639 BGII                   | 5.4     | 5.9      | 6.5     | 7.0        | 5.4                | <b>6.0</b> |
| 2      | RSCH 999 BGII                   | 5.9     | 5.1      | 6.8     | 8.1        | 4.5                | <b>6.1</b> |
| 3      | RCH 1116 BGII                   | 5.9     | 5.6      | 5.8     | 8.8        | 4.9                | <b>6.2</b> |
| 4      | US 720 BGII                     | 4.4     | 5.4      | 6.3     | 8.6        | 5.4                | <b>6.0</b> |
| 5      | KCH 9298 BGII                   | 4.6     | 4.8      | 5.5     | 7.1        | 5.8                | <b>5.6</b> |
| 6      | 24SS66 BGII                     | 7.0     | 5.1      | 5.4     | 8.0        | 5.1                | <b>6.1</b> |
| 7      | GBCH 6666 BGII                  | 6.4     | 5.6      | 6.0     | 8.7        | 4.9                | <b>6.3</b> |
| 8      | CORE 103 BGII                   | 5.8     | 5.4      | 5.9     | 8.8        | 4.9                | <b>6.2</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 4.6     | 5.2      | 6.6     | 10.1       | 4.8                | <b>6.3</b> |
| 10     | RSCH 369 BGII                   | 6.2     | 5.4      | 6.6     | 7.7        | 5.1                | <b>6.2</b> |
| 11     | RCH 1121 BGII                   | 5.0     | 6.0      | 6.0     | 8.8        | 4.4                | <b>6.0</b> |
| 12     | KCH 9294 BGII                   | 6.6     | 5.5      | 6.3     | 8.9        | 5.4                | <b>6.5</b> |
| 13     | CCH 529 Bt2                     | 6.5     | 5.4      | 6.2     | 8.9        | 6.0                | <b>6.6</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 4.9     | 6.5      | 7.9     | 9.1        | 5.9                | <b>6.9</b> |
|        | CD @ 5%                         | 0.6     | 0.5      |         | 0.8        | 5.0                |            |
|        | CV %                            | 6.4     | 5.4      |         | 3.9        | 0.4                |            |

**Seed Index (g) in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 9.9     | 11.6     | 12.8    | 12.0       | 10.7               | <b>11.4</b> |
| 2      | RSCH 999 BGII                   | 9.8     | 10.6     | 13.5    | 12.9       | 9.3                | <b>11.2</b> |
| 3      | RCH 1116 BGII                   | 10.1    | 10.9     | 11.3    | 12.9       | 9.0                | <b>10.8</b> |
| 4      | US 720 BGII                     | 10.2    | 11.4     | 11.6    | 12.7       | 10.3               | <b>11.2</b> |
| 5      | KCH 9298 BGII                   | 10.4    | 10.4     | 11.0    | 11.5       | 10.0               | <b>10.7</b> |
| 6      | 24SS66 BGII                     | 9.4     | 9.7      | 10.5    | 11.7       | 9.3                | <b>10.1</b> |
| 7      | GBCH 6666 BGII                  | 10.9    | 12.9     | 13.8    | 12.6       | 11.3               | <b>12.3</b> |
| 8      | CORE 103 BGII                   | 10.6    | 11.1     | 11.2    | 12.7       | 10.7               | <b>11.3</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 11.1    | 12.6     | 14.5    | 15.1       | 10.7               | <b>12.8</b> |
| 10     | RSCH 369 BGII                   | 10.2    | 11.6     | 12.8    | 12.8       | 11.0               | <b>11.7</b> |
| 11     | RCH 1121 BGII                   | 10.6    | 11.5     | 12.4    | 12.9       | 8.7                | <b>11.2</b> |
| 12     | KCH 9294 BGII                   | 9.8     | 10.5     | 11.5    | 12.7       | 9.3                | <b>10.8</b> |
| 13     | CCH 529 Bt2                     | 10.2    | 10.5     | 11.5    | 12.7       | 11.0               | <b>11.2</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 10.7    | 11.4     | 12.3    | 13.3       | 10.7               | <b>11.7</b> |
|        | CD @ 5%                         | 0.7     | 0.9      |         | 0.7        | 4.8                |             |
|        | CV %                            | 4.2     | 4.7      |         | 3.3        | 0.8                |             |



**Ginning outturn (%) in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 33.6    | 33.8     | 33.8    | 36.9       | 33.6               | <b>34.3</b> |
| 2      | RSCH 999 BGII                   | 39.2    | 32.4     | 33.4    | 38.5       | 32.6               | <b>35.2</b> |
| 3      | RCH 1116 BGII                   | 35.1    | 34.1     | 34.1    | 40.5       | 35.1               | <b>35.8</b> |
| 4      | US 720 BGII                     | 31.5    | 32.2     | 35.4    | 40.3       | 34.2               | <b>34.7</b> |
| 5      | KCH 9298 BGII                   | 32.3    | 31.7     | 33.6    | 38.1       | 36.6               | <b>34.5</b> |
| 6      | 24SS66 BGII                     | 41.5    | 34.3     | 33.9    | 40.6       | 35.3               | <b>37.1</b> |
| 7      | GBCH 6666 BGII                  | 37.1    | 30.2     | 30.4    | 40.9       | 30.3               | <b>33.8</b> |
| 8      | CORE 103 BGII                   | 37.3    | 32.5     | 34.6    | 40.8       | 31.6               | <b>35.4</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 31.0    | 29.0     | 31.3    | 40.0       | 30.8               | <b>32.4</b> |
| 10     | RSCH 369 BGII                   | 38.3    | 31.5     | 34.1    | 37.3       | 31.8               | <b>34.6</b> |
| 11     | RCH 1121 BGII                   | 34.2    | 34.1     | 32.8    | 40.7       | 33.7               | <b>35.1</b> |
| 12     | KCH 9294 BGII                   | 40.7    | 34.2     | 35.5    | 41.1       | 36.7               | <b>37.6</b> |
| 13     | CCH 529 Bt2                     | 36.9    | 33.9     | 35.2    | 41.2       | 35.2               | <b>36.5</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 33.6    | 36.3     | 39.1    | 40.6       | 35.7               | <b>37.1</b> |
|        | CD @ 5%                         | 3.0     | 2.0      |         | 2.5        | 1.8                |             |
|        | CV %                            | 5.0     | 3.7      |         | 3.9        | 1.0                |             |

**Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 30.6    | 27.8     | 30.8    | 30.8       | 28.7               | <b>29.7</b> |
| 2      | RSCH 999 BGII                   | 28.1    | 28.7     | 32.1    | 30.4       | 30.8               | <b>30.0</b> |
| 3      | RCH 1116 BGII                   | 27.2    | 28.3     | 28.2    | 28.5       | 26.3               | <b>27.7</b> |
| 4      | US 720 BGII                     | 28.9    | 29.7     | 30.7    | 25.9       | 28.0               | <b>28.6</b> |
| 5      | KCH 9298 BGII                   | 28.4    | 27.3     | 28.8    | 26.6       | 26.6               | <b>27.5</b> |
| 6      | 24SS66 BGII                     | 27.6    | 28.1     | 29.0    | 28.1       | 28.4               | <b>28.2</b> |
| 7      | GBCH 6666 BGII                  | 30.4    | 31.0     | 32.5    | 30.1       | 28.8               | <b>30.6</b> |
| 8      | CORE 103 BGII                   | 29.1    | 30.1     | 30.7    | 28.8       | 29.1               | <b>29.6</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 29.4    | 30.6     | 34.3    | 32.2       | 31.8               | <b>31.7</b> |
| 10     | RSCH 369 BGII                   | 31.0    | 28.4     | 31.3    | 30.2       | 28.3               | <b>29.8</b> |
| 11     | RCH 1121 BGII                   | 27.2    | 26.4     | 28.9    | 28.7       | 26.1               | <b>27.5</b> |
| 12     | KCH 9294 BGII                   | 28.2    | 27.5     | 30.4    | 28.8       | 27.7               | <b>28.5</b> |
| 13     | CCH 529 Bt2                     | 28.6    | 29.5     | 29.8    | 28.0       | 26.7               | <b>28.5</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 27.4    | 27.1     | 28.3    | 27.0       | 27.3               | <b>27.4</b> |



**Uniformity index under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 83.0    | 80.0     | 85.0    | 85.0       | 85.0               | <b>83.6</b> |
| 2      | RSCH 999 BGII                   | 82.0    | 83.0     | 87.0    | 85.0       | 83.0               | <b>84.0</b> |
| 3      | RCH 1116 BGII                   | 81.0    | 84.0     | 85.0    | 84.0       | 83.0               | <b>83.4</b> |
| 4      | US 720 BGII                     | 85.0    | 85.0     | 85.0    | 84.0       | 83.0               | <b>84.4</b> |
| 5      | KCH 9298 BGII                   | 83.0    | 85.0     | 86.0    | 84.0       | 83.0               | <b>84.2</b> |
| 6      | 24SS66 BGII                     | 85.0    | 84.0     | 85.0    | 83.0       | 84.0               | <b>84.2</b> |
| 7      | GBCH 6666 BGII                  | 85.0    | 84.0     | 88.0    | 86.0       | 86.0               | <b>85.8</b> |
| 8      | CORE 103 BGII                   | 83.0    | 84.0     | 86.0    | 84.0       | 83.0               | <b>84.0</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 84.0    | 83.0     | 86.0    | 84.0       | 86.0               | <b>84.6</b> |
| 10     | RSCH 369 BGII                   | 83.0    | 82.0     | 87.0    | 84.0       | 83.0               | <b>83.8</b> |
| 11     | RCH 1121 BGII                   | 83.0    | 83.0     | 85.0    | 85.0       | 83.0               | <b>83.8</b> |
| 12     | KCH 9294 BGII                   | 83.0    | 83.0     | 87.0    | 84.0       | 84.0               | <b>84.2</b> |
| 13     | CCH 529 Bt2                     | 84.0    | 85.0     | 86.0    | 84.0       | 85.0               | <b>84.8</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 84.0    | 82.0     | 85.0    | 83.0       | 85.0               | <b>83.8</b> |

**Micronaire under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|------------|
| 1      | MSCH 639 BGII                   | 3.6     | 4.3      | 4.4     | 4.3        | 3.8                | <b>4.1</b> |
| 2      | RSCH 999 BGII                   | 3.8     | 4.4      | 4.3     | 4.5        | 3.0                | <b>4.0</b> |
| 3      | RCH 1116 BGII                   | 4.6     | 5.1      | 5.2     | 4.7        | 3.5                | <b>4.6</b> |
| 4      | US 720 BGII                     | 4.5     | 5.2      | 4.8     | 5.6        | 4.5                | <b>4.9</b> |
| 5      | KCH 9298 BGII                   | 4.2     | 4.7      | 4.5     | 4.7        | 3.5                | <b>4.3</b> |
| 6      | 24SS66 BGII                     | 5.1     | 5.2      | 5.7     | 5.1        | 5.1                | <b>5.2</b> |
| 7      | GBCH 6666 BGII                  | 3.9     | 4.4      | 4.2     | 4.1        | 3.5                | <b>4.0</b> |
| 8      | CORE 103 BGII                   | 4.0     | 4.5      | 4.5     | 4.3        | 3.6                | <b>4.2</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 3.9     | 4.0      | 4.2     | 4.5        | 3.5                | <b>4.0</b> |
| 10     | RSCH 369 BGII                   | 3.8     | 4.6      | 4.3     | 4.0        | 3.4                | <b>4.0</b> |
| 11     | RCH 1121 BGII                   | 4.8     | 4.9      | 5.3     | 5.4        | 4.2                | <b>4.9</b> |
| 12     | KCH 9294 BGII                   | 4.0     | 4.4      | 4.6     | 4.8        | 3.4                | <b>4.2</b> |
| 13     | CCH 529 Bt2                     | 3.9     | 4.4      | 4.5     | 4.5        | 3.8                | <b>4.2</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 4.5     | 4.6      | 5.0     | 5.0        | 4.4                | <b>4.7</b> |



**Tenacity under HVI Mode in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------|
| 1      | MSCH 639 BGII                   | 30.8    | 29.7     | 29.3    | 29.1       | 25.0               | <b>28.8</b> |
| 2      | RSCH 999 BGII                   | 30.8    | 29.9     | 29.9    | 30.2       | 28.0               | <b>29.8</b> |
| 3      | RCH 1116 BGII                   | 28.8    | 29.7     | 30.0    | 28.7       | 24.2               | <b>28.3</b> |
| 4      | US 720 BGII                     | 29.8    | 30.2     | 30.8    | 27.6       | 26.9               | <b>29.1</b> |
| 5      | KCH 9298 BGII                   | 30.1    | 29.1     | 32.7    | 28.2       | 27.2               | <b>29.5</b> |
| 6      | 24SS66 BGII                     | 28.6    | 30.1     | 30.3    | 30.1       | 27.7               | <b>29.4</b> |
| 7      | GBCH 6666 BGII                  | 30.5    | 31.3     | 32.7    | 31.0       | 30.4               | <b>31.2</b> |
| 8      | CORE 103 BGII                   | 30.7    | 31.4     | 30.2    | 29.9       | 27.2               | <b>29.9</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 30.7    | 30.9     | 30.3    | 31.8       | 31.2               | <b>31.0</b> |
| 10     | RSCH 369 BGII                   | 31.1    | 29.6     | 30.1    | 29.3       | 26.9               | <b>29.4</b> |
| 11     | RCH 1121 BGII                   | 29.1    | 27.8     | 28.1    | 30.6       | 28.0               | <b>28.7</b> |
| 12     | KCH 9294 BGII                   | 30.0    | 28.6     | 29.4    | 28.8       | 26.8               | <b>28.7</b> |
| 13     | CCH 529 Bt2                     | 31.1    | 30.8     | 30.5    | 28.9       | 26.8               | <b>29.6</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 29.6    | 28.7     | 29.6    | 28.3       | 27.3               | <b>28.7</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - I**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|
| 1      | MSCH 639 BGII                   | 24.0    | 23.44    | 11.55   | 15.59      | 22.50              | <b>19.42</b> |
| 2      | RSCH 999 BGII                   | 23.6    | 20.81    | 9.14    | 13.87      | 20.50              | <b>17.58</b> |
| 3      | RCH 1116 BGII                   | 21.4    | 26.24    | 10.72   | 20.84      | 22.53              | <b>20.35</b> |
| 4      | US 720 BGII                     | 17.8    | 19.76    | 9.01    | 16.03      | 20.49              | <b>16.62</b> |
| 5      | KCH 9298 BGII                   | 22.2    | 19.59    | 13.71   | 17.45      | 25.85              | <b>19.76</b> |
| 6      | 24SS66 BGII                     | 22.9    | 13.31    | 11.22   | 15.56      | 21.69              | <b>16.94</b> |
| 7      | GBCH 6666 BGII                  | 16.6    | 16.33    | 8.59    | 15.82      | 18.22              | <b>15.11</b> |
| 8      | CORE 103 BGII                   | 19.9    | 11.89    | 12.81   | 13.51      | 19.37              | <b>15.50</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 19.4    | 22.37    | 12.81   | 13.91      | 16.27              | <b>16.95</b> |
| 10     | RSCH 369 BGII                   | 22.1    | 19.85    | 9.88    | 19.88      | 21.42              | <b>18.63</b> |
| 11     | RCH 1121 BGII                   | 16.6    | 21.04    | 8.12    | 20.27      | 22.70              | <b>17.75</b> |
| 12     | KCH 9294 BGII                   | 20.3    | 13.30    | 5.19    | 15.01      | 24.16              | <b>15.59</b> |
| 13     | CCH 529 Bt2                     | 23.7    | 20.63    | 7.97    | 18.80      | 22.84              | <b>18.79</b> |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 20.3    | 14.31    | 9.02    | 9.90       | 20.45              | <b>14.80</b> |
|        | CD @ 5%                         | 3.4     | 4.28     | 2.19    | 4.29       | 9.27               |              |
|        | CV %                            | 9.7     | 13.59    | 13.04   | 16.59      | 3.32               |              |



## Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - I

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|
| 1      | MSCH 639 BGII                   | 3.40    | 11.00    | 9.67    | 9.67       | 9.74               | <b>8.70</b>  |
| 2      | RSCH 999 BGII                   | 2.56    | 7.57     | 10.50   | 9.53       | 6.21               | <b>7.27</b>  |
| 3      | RCH 1116 BGII                   | 2.73    | 6.65     | 8.93    | 9.34       | 11.19              | <b>7.77</b>  |
| 4      | US 720 BGII                     | 5.11    | 9.41     | 9.61    | 14.51      | 3.15               | <b>8.36</b>  |
| 5      | KCH 9298 BGII                   | 4.19    | 14.26    | 10.26   | 11.74      | 9.00               | <b>9.89</b>  |
| 6      | 24SS66 BGII                     | 2.69    | 10.76    | 10.36   | 13.97      | 9.84               | <b>9.52</b>  |
| 7      | GBCH 6666 BGII                  | 4.61    | 10.69    | 11.45   | 10.33      | 11.49              | <b>9.71</b>  |
| 8      | CORE 103 BGII                   | 3.24    | 16.20    | 10.53   | 14.62      | 11.30              | <b>11.18</b> |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 3.04    | 9.57     | 9.46    | 9.97       | 7.91               | <b>7.99</b>  |
| 10     | RSCH 369 BGII                   | 3.94    | 7.43     | 9.29    | 13.77      | 8.43               | <b>8.57</b>  |
| 11     | RCH 1121 BGII                   | 4.19    | 6.72     | 8.94    | 9.22       | 7.32               | <b>7.28</b>  |
| 12     | KCH 9294 BGII                   | 2.96    | 7.11     | 8.77    | 12.26      | 11.10              | <b>8.44</b>  |
| 13     | CCH 529 Bt2                     | 3.87    | 7.20     | 12.22   | 10.34      | 8.45               | <b>8.42</b>  |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 1.70    | 8.96     | 9.60    | 9.44       | 8.17               | <b>7.57</b>  |
|        | CD @ 5%                         | 0.87    | 2.28     | 2.40    | 1.38       | 16.68              |              |
|        | CV %                            | 15.00   | 14.24    | 14.05   | 7.61       | 2.47               |              |

## Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of H X H hybrids - I

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mean         | Rank | % Inc over best check |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|--------------|------|-----------------------|
| 1      | MSCH 639 BGII                   | 27.36   | 34.44    | 21.22   | 25.26      | 32.24              | <b>28.10</b> | 3    | 12.6                  |
| 2      | RSCH 999 BGII                   | 26.14   | 28.39    | 19.64   | 23.40      | 26.70              | <b>24.85</b> | 11   | -0.4                  |
| 3      | RCH 1116 BGII                   | 24.15   | 32.89    | 19.65   | 30.18      | 33.71              | <b>28.12</b> | 2    | 12.7                  |
| 4      | US 720 BGII                     | 22.91   | 29.17    | 18.62   | 30.54      | 23.64              | <b>24.98</b> | 9    | 0.1                   |
| 5      | KCH 9298 BGII                   | 26.40   | 33.85    | 23.97   | 29.19      | 34.86              | <b>29.65</b> | 1    | 18.9                  |
| 6      | 24SS66 BGII                     | 25.56   | 24.07    | 21.58   | 29.53      | 31.53              | <b>26.45</b> | 7    | 6.0                   |
| 7      | GBCH 6666 BGII                  | 21.20   | 27.02    | 20.03   | 26.15      | 29.71              | <b>24.82</b> | 12   | -0.5                  |
| 8      | CORE 103 BGII                   | 23.17   | 28.09    | 23.34   | 28.13      | 30.67              | <b>26.68</b> | 6    | 6.9                   |
| 9      | <b>Daftari 615 BG II (ZC 2)</b> | 22.48   | 31.94    | 22.27   | 23.88      | 24.19              | <b>24.95</b> | 10   | 0.0                   |
| 10     | RSCH 369 BGII                   | 26.06   | 27.28    | 19.17   | 33.65      | 29.85              | <b>27.20</b> | 5    | 9.0                   |
| 11     | RCH 1121 BGII                   | 20.80   | 27.76    | 17.06   | 29.49      | 30.01              | <b>25.02</b> | 8    | 0.3                   |
| 12     | KCH 9294 BGII                   | 23.30   | 20.41    | 13.95   | 27.27      | 35.25              | <b>24.04</b> | 13   | -3.7                  |
| 13     | CCH 529 Bt2                     | 27.61   | 27.83    | 20.19   | 29.14      | 31.29              | <b>27.21</b> | 4    | 9.1                   |
| 14     | <b>SP7679 BGII (ZC 1)</b>       | 21.98   | 23.28    | 18.62   | 19.34      | 28.62              | <b>22.37</b> | 14   | -10.3                 |
|        | CD @ 5%                         | 3.40    | 5.41     | 2.90    | 4.00       | 8.15               |              |      |                       |
|        | CV %                            | 8.50    | 11.38    | 8.64    | 9.09       | 4.13               |              |      |                       |





**Evaluation under Protected Condition for Insect pests**  
**Reaction to Insect Pest**  
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**Table: Advanced H X H trial in South Zone under Protected Conditions – Aphid**

| Name of Entry            | Aphid (Average of 3 leaves/plant) |      |    |      |       |             | Remark      |
|--------------------------|-----------------------------------|------|----|------|-------|-------------|-------------|
|                          | NA                                | DH   | PE | AD   | MU    | Mean        |             |
| MSCH 639 BGII            | -                                 | 1.02 | -  | 2.39 | 2.48  | <b>1.96</b> | <b>BETL</b> |
| RSCH 999 BGII            | -                                 | 0.66 | -  | 2.03 | 2.58  | <b>1.76</b> | <b>BETL</b> |
| RCH 1116 BGII            | -                                 | 0.88 | -  | 2.96 | 2.62  | <b>2.15</b> | <b>BETL</b> |
| US 720 BGII              | -                                 | 1.02 | -  | 2.20 | 5.38  | <b>2.87</b> | <b>BETL</b> |
| KCH 9298 BGII            | -                                 | 1.13 | -  | 1.94 | 1.86  | <b>1.64</b> | <b>BETL</b> |
| 24SS66 BGII              | -                                 | 2.15 | -  | 1.91 | 3.52  | <b>2.53</b> | <b>BETL</b> |
| GBCH 6666 BGII           | -                                 | 0.86 | -  | 1.53 | 1.59  | <b>1.33</b> | <b>BETL</b> |
| CORE 103 BGII            | -                                 | 0.82 | -  | 1.94 | 4.89  | <b>2.55</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                 | 1.65 | -  | 1.80 | 12.48 | <b>5.31</b> | <b>BETL</b> |
| RSCH 369 BGII            | -                                 | 1.11 | -  | 2.17 | 4.55  | <b>2.61</b> | <b>BETL</b> |
| RCH 1121 BGII            | -                                 | 0.84 | -  | 1.54 | 4.41  | <b>2.26</b> | <b>BETL</b> |
| KCH 9294 BGII            | -                                 | 0.62 | -  | 2.55 | 4.96  | <b>2.71</b> | <b>BETL</b> |
| CCH 529 Bt2              | -                                 | 0.73 | -  | 2.50 | 2.62  | <b>1.95</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                 | 0.70 | -  | 2.15 | 2.69  | <b>1.85</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry            | Leafhopper (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|----------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                     | DH   | PE   | AD   | MU   | Mean        |             |
| MSCH 639 BGII            | -                                      | 0.37 | 2.89 | 0.27 | 1.42 | <b>1.24</b> | <b>BETL</b> |
| RSCH 999 BGII            | -                                      | 0.25 | 2.94 | 0.26 | 0.92 | <b>1.09</b> | <b>BETL</b> |
| RCH 1116 BGII            | -                                      | 0.78 | 1.63 | 0.51 | 0.51 | <b>0.86</b> | <b>BETL</b> |
| US 720 BGII              | -                                      | 0.34 | 2.16 | 0.56 | 1.31 | <b>1.09</b> | <b>BETL</b> |
| KCH 9298 BGII            | -                                      | 0.34 | 2.71 | 0.52 | 0.41 | <b>0.99</b> | <b>BETL</b> |
| 24SS66 BGII              | -                                      | 0.28 | 2.45 | 0.54 | 0.61 | <b>0.97</b> | <b>BETL</b> |
| GBCH 6666 BGII           | -                                      | 0.38 | 2.94 | 0.57 | 0.81 | <b>1.18</b> | <b>BETL</b> |
| CORE 103 BGII            | -                                      | 0.47 | 2.38 | 0.50 | 0.51 | <b>0.96</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                      | 0.65 | 2.58 | 0.35 | 0.92 | <b>1.12</b> | <b>BETL</b> |
| RSCH 369 BGII            | -                                      | 0.36 | 2.71 | 0.40 | 1.12 | <b>1.15</b> | <b>BETL</b> |
| RCH 1121 BGII            | -                                      | 0.51 | 1.73 | 0.48 | 1.12 | <b>0.96</b> | <b>BETL</b> |
| KCH 9294 BGII            | -                                      | 0.60 | 2.08 | 0.48 | 1.02 | <b>1.05</b> | <b>BETL</b> |
| CCH 529 Bt2              | -                                      | 0.37 | 2.31 | 0.52 | 0.71 | <b>0.98</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                      | 0.43 | 2.31 | 0.44 | 2.24 | <b>1.36</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – JIG**

| Name of Entry            | JIG/plant |    |    |    |    |      | Remark |
|--------------------------|-----------|----|----|----|----|------|--------|
|                          | NA        | DH | PE | AD | MU | Mean |        |
| MSCH 639 BGII            | -         | I  | -  | -  | -  | I    |        |
| RSCH 999 BGII            | -         | I  | -  | -  | -  | I    |        |
| RCH 1116 BGII            | -         | I  | -  | -  | -  | I    |        |
| US 720 BGII              | -         | I  | -  | -  | -  | I    |        |
| KCH 9298 BGII            | -         | I  | -  | -  | -  | I    |        |
| 24SS66 BGII              | -         | I  | -  | -  | -  | I    |        |
| GBCH 6666 BGII           | -         | I  | -  | -  | -  | I    |        |
| CORE 103 BGII            | -         | I  | -  | -  | -  | I    |        |
| Daftari 615 BG II (ZC 2) | -         | I  | -  | -  | -  | I    |        |
| RSCH 369 BGII            | -         | I  | -  | -  | -  | I    |        |
| RCH 1121 BGII            | -         | I  | -  | -  | -  | I    |        |
| KCH 9294 BGII            | -         | I  | -  | -  | -  | I    |        |
| CCH 529 Bt2              | -         | I  | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1)       | -         | I  | -  | -  | -  | I    |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Thrips**

| Name of Entry            | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                 | DH   | PE   | AD   | MU   | Mean        |             |
| MSCH 639 BGII            | -                                  | 1.75 | 0.00 | 1.23 | 1.13 | <b>1.03</b> | <b>BETL</b> |
| RSCH 999 BGII            | -                                  | 1.28 | 0.00 | 1.4  | 1.18 | <b>0.96</b> | <b>BETL</b> |
| RCH 1116 BGII            | -                                  | 1.58 | 0.00 | 1.4  | 3.18 | <b>1.54</b> | <b>BETL</b> |
| US 720 BGII              | -                                  | 2.13 | 0.00 | 1.37 | 3.72 | <b>1.81</b> | <b>BETL</b> |
| KCH 9298 BGII            | -                                  | 1.80 | 0.00 | 1.53 | 5.25 | <b>2.14</b> | <b>BETL</b> |
| 24SS66 BGII              | -                                  | 3.31 | 0.00 | 1.77 | 0.35 | <b>1.36</b> | <b>BETL</b> |
| GBCH 6666 BGII           | -                                  | 1.40 | 0.00 | 1.57 | 5.40 | <b>2.09</b> | <b>BETL</b> |
| CORE 103 BGII            | -                                  | 1.88 | 0.00 | 1.5  | 3.40 | <b>1.70</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                  | 2.79 | 1.41 | 1.27 | 1.63 | <b>1.77</b> | <b>BETL</b> |
| RSCH 369 BGII            | -                                  | 2.18 | 0.00 | 1.17 | 1.45 | <b>1.20</b> | <b>BETL</b> |
| RCH 1121 BGII            | -                                  | 1.33 | 0.58 | 1.3  | 2.53 | <b>1.43</b> | <b>BETL</b> |
| KCH 9294 BGII            | -                                  | 1.21 | 0.00 | 1.4  | 3.08 | <b>1.42</b> | <b>BETL</b> |
| CCH 529 Bt2              | -                                  | 1.61 | 0.00 | 1.63 | 2.78 | <b>1.50</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                  | 1.64 | 1.15 | 1.37 | 4.25 | <b>2.10</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry            | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|--------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                   | DH   | PE   | AD   | MU   | Mean        |             |
| MSCH 639 BGII            | -                                    | 0.02 | 0.00 | 0.90 | 0.85 | <b>0.44</b> | <b>BETL</b> |
| RSCH 999 BGII            | -                                    | 0.02 | 0.58 | 0.57 | 0.97 | <b>0.53</b> | <b>BETL</b> |
| RCH 1116 BGII            | -                                    | 0.04 | 0.00 | 0.63 | 0.33 | <b>0.25</b> | <b>BETL</b> |
| US 720 BGII              | -                                    | 0.04 | 0.00 | 0.70 | 0.45 | <b>0.30</b> | <b>BETL</b> |
| KCH 9298 BGII            | -                                    | 0.02 | 0.58 | 0.67 | 0.15 | <b>0.35</b> | <b>BETL</b> |
| 24SS66 BGII              | -                                    | 0.04 | 0.00 | 0.53 | 0.11 | <b>0.17</b> | <b>BETL</b> |
| GBCH 6666 BGII           | -                                    | 0.06 | 0.82 | 0.37 | 0.07 | <b>0.33</b> | <b>BETL</b> |
| CORE 103 BGII            | -                                    | 0.01 | 0.82 | 0.30 | 0.41 | <b>0.38</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                    | 0.07 | 1.15 | 0.27 | 0.45 | <b>0.48</b> | <b>BETL</b> |
| RSCH 369 BGII            | -                                    | 0.02 | 0.58 | 0.30 | 0.67 | <b>0.39</b> | <b>BETL</b> |
| RCH 1121 BGII            | -                                    | 0.02 | 0.00 | 0.20 | 0.67 | <b>0.22</b> | <b>BETL</b> |
| KCH 9294 BGII            | -                                    | 0.06 | 0.82 | 0.40 | 0.52 | <b>0.45</b> | <b>BETL</b> |
| CCH 529 Bt2              | -                                    | 0.02 | 0.00 | 0.30 | 0.78 | <b>0.28</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | -                                    | 0.22 | 0.00 | 0.47 | 0.45 | <b>0.28</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table Advanced H X H trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry            | Natural Enemies (No./plant) |      |      |    |    |             | Remark |
|--------------------------|-----------------------------|------|------|----|----|-------------|--------|
|                          | NA                          | DH   | PE   | AD | MU | Mean        |        |
| MSCH 639 BGII            | -                           | 0.20 | 0.00 | -  | -  | <b>0.10</b> |        |
| RSCH 999 BGII            | -                           | 0.26 | 0.00 | -  | -  | <b>0.13</b> |        |
| RCH 1116 BGII            | -                           | 0.54 | 0.00 | -  | -  | <b>0.27</b> |        |
| US 720 BGII              | -                           | 0.65 | 0.00 | -  | -  | <b>0.33</b> |        |
| KCH 9298 BGII            | -                           | 1.07 | 0.00 | -  | -  | <b>0.54</b> |        |
| 24SS66 BGII              | -                           | 0.75 | 0.00 | -  | -  | <b>0.38</b> |        |
| GBCH 6666 BGII           | -                           | 0.48 | 0.00 | -  | -  | <b>0.24</b> |        |
| CORE 103 BGII            | -                           | 0.51 | 0.00 | -  | -  | <b>0.26</b> |        |
| Daftari 615 BG II (ZC 2) | -                           | 0.61 | 0.00 | -  | -  | <b>0.30</b> |        |
| RSCH 369 BGII            | -                           | 0.94 | 0.00 | -  | -  | <b>0.47</b> |        |
| RCH 1121 BGII            | -                           | 0.62 | 0.00 | -  | -  | <b>0.31</b> |        |
| KCH 9294 BGII            | -                           | 0.71 | 0.00 | -  | -  | <b>0.35</b> |        |
| CCH 529 Bt2              | -                           | 0.26 | 0.00 | -  | -  | <b>0.13</b> |        |
| SP7679 BGII (ZC 1)       | -                           | 0.49 | 0.00 | -  | -  | <b>0.24</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions– *Helicoverpa armigera***

| Name of Entry            | <i>Helicoverpa armigera</i> (No. /5plants) |      |      |      |    |      | Remark |
|--------------------------|--------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                         | DH   | PE   | AD   | MU | Mean |        |
| MSCH 639 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                          | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Spotted/  
Spiny Bollworms**

| Name of Entry            | Spotted Bollworms (No. /5 plants) |      |      |      |    |      | Remark |
|--------------------------|-----------------------------------|------|------|------|----|------|--------|
|                          | NA                                | DH   | PE   | AD   | MU | Mean |        |
| MSCH 639 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry            | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |    |      | Remark |
|--------------------------|------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                       | DH   | PE   | AD   | MU | Mean |        |
| MSCH 639 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Pink bollworm**

| Name of Entry            | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |      | Remark |
|--------------------------|---------------------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                                      | DH   | PE   | AD#  | MU | Mean |        |
| MSCH 639 BGII            | -                                                       | 1.50 | 1.48 | 0.40 | -  | 1.13 | AETL   |
| RSCH 999 BGII            | -                                                       | 0.83 | 1.15 | 0.87 | -  | 0.95 | BETL   |
| RCH 1116 BGII            | -                                                       | 1.33 | 1.38 | 0.53 | -  | 1.08 | AETL   |
| US 720 BGII              | -                                                       | 1.17 | 1.82 | 0.53 | -  | 1.17 | AETL   |
| KCH 9298 BGII            | -                                                       | 0.83 | 2.15 | 0.47 | -  | 1.15 | AETL   |
| 24SS66 BGII              | -                                                       | 0.83 | 1.32 | 0.93 | -  | 1.03 | AETL   |
| GBCH 6666 BGII           | -                                                       | 0.50 | 1.48 | 0.33 | -  | 0.77 | BETL   |
| CORE 103 BGII            | -                                                       | 1.00 | 2.15 | 0.53 | -  | 1.23 | AETL   |
| Daftari 615 BG II (ZC 2) | -                                                       | 0.50 | 1.15 | 1.27 | -  | 0.97 | BETL   |
| RSCH 369 BGII            | -                                                       | 1.17 | 1.75 | 0.53 | -  | 1.15 | AETL   |
| RCH 1121 BGII            | -                                                       | 0.83 | 1.35 | 0.93 | -  | 1.04 | AETL   |
| KCH 9294 BGII            | -                                                       | 2.17 | 1.38 | 1.00 | -  | 1.52 | AETL   |
| CCH 529 Bt2              | -                                                       | 0.83 | 1.95 | 0.87 | -  | 1.22 | AETL   |
| SP7679 BGII (ZC 1)       | -                                                       | 1.33 | 1.65 | 0.53 | -  | 1.17 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # based on 5 observations



**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry            | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |      | Remark |
|--------------------------|-----------------------------------------|------|----|------|----|------|--------|
|                          | NA                                      | DH   | PE | AD   | MU | Mean |        |
| MSCH 639 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry            | Green Boll Damage (%) /10 bolls destructive sampling |       |    |       |    |       | Remark |
|--------------------------|------------------------------------------------------|-------|----|-------|----|-------|--------|
|                          | NA                                                   | DH    | PE | AD    | MU | Mean  |        |
| MSCH 639 BGII            | -                                                    | 10.00 | -  | 18.67 | -  | 14.34 | AETL   |
| RSCH 999 BGII            | -                                                    | 8.33  | -  | 19.33 | -  | 13.83 | AETL   |
| RCH 1116 BGII            | -                                                    | 6.67  | -  | 18.00 | -  | 12.34 | AETL   |
| US 720 BGII              | -                                                    | 8.33  | -  | 27.33 | -  | 17.83 | AETL   |
| KCH 9298 BGII            | -                                                    | 5.00  | -  | 17.33 | -  | 11.17 | AETL   |
| 24SS66 BGII              | -                                                    | 8.33  | -  | 17.33 | -  | 12.83 | AETL   |
| GBCH 6666 BGII           | -                                                    | 8.33  | -  | 16.00 | -  | 12.17 | AETL   |
| CORE 103 BGII            | -                                                    | 8.33  | -  | 31.33 | -  | 19.83 | AETL   |
| Daftari 615 BG II (ZC 2) | -                                                    | 8.33  | -  | 27.33 | -  | 17.83 | AETL   |
| RSCH 369 BGII            | -                                                    | 10.00 | -  | 18.00 | -  | 14.00 | AETL   |
| RCH 1121 BGII            | -                                                    | 8.33  | -  | 19.33 | -  | 13.83 | AETL   |
| KCH 9294 BGII            | -                                                    | 16.67 | -  | 18.00 | -  | 17.34 | AETL   |
| CCH 529 Bt2              | -                                                    | 5.00  | -  | 15.33 | -  | 10.17 | AETL   |
| SP7679 BGII (ZC 1)       | -                                                    | 6.67  | -  | 23.33 | -  | 15.00 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry            | Open Boll Damage (%) |       |      |       |    |              | Remark |
|--------------------------|----------------------|-------|------|-------|----|--------------|--------|
|                          | NA                   | DH    | PE   | AD    | MU | Mean         |        |
| MSCH 639 BGII            | -                    | 6.81  | 6.00 | 35.00 | -  | <b>15.94</b> |        |
| RSCH 999 BGII            | -                    | 8.29  | 4.00 | 37.91 | -  | <b>16.73</b> |        |
| RCH 1116 BGII            | -                    | 8.58  | 5.00 | 36.11 | -  | <b>16.56</b> |        |
| US 720 BGII              | -                    | 5.85  | 6.00 | 36.67 | -  | <b>16.17</b> |        |
| KCH 9298 BGII            | -                    | 6.17  | 8.00 | 30.00 | -  | <b>14.72</b> |        |
| 24SS66 BGII              | -                    | 6.98  | 4.00 | 33.67 | -  | <b>14.88</b> |        |
| GBCH 6666 BGII           | -                    | 6.05  | 5.00 | 30.89 | -  | <b>13.98</b> |        |
| CORE 103 BGII            | -                    | 7.22  | 4.00 | 44.78 | -  | <b>18.67</b> |        |
| Daftari 615 BG II (ZC 2) | -                    | 3.91  | 3.00 | 53.55 | -  | <b>20.15</b> |        |
| RSCH 369 BGII            | -                    | 6.84  | 4.00 | 37.00 | -  | <b>15.95</b> |        |
| RCH 1121 BGII            | -                    | 6.32  | 5.00 | 39.22 | -  | <b>16.85</b> |        |
| KCH 9294 BGII            | -                    | 10.00 | 4.00 | 36.67 | -  | <b>16.89</b> |        |
| CCH 529 Bt2              | -                    | 8.59  | 5.00 | 27.78 | -  | <b>13.79</b> |        |
| SP7679 BGII (ZC 1)       | -                    | 6.73  | 7.00 | 39.44 | -  | <b>17.72</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry            | Locule Damage (%) |       |      |       |    |             | Remark |
|--------------------------|-------------------|-------|------|-------|----|-------------|--------|
|                          | NA                | DH    | PE   | AD    | MU | Mean        |        |
| MSCH 639 BGII            | -                 | 4.08  | 3.00 | 13.33 | -  | <b>6.80</b> |        |
| RSCH 999 BGII            | -                 | 5.92  | 1.00 | 13.33 | -  | <b>6.75</b> |        |
| RCH 1116 BGII            | -                 | 4.67  | 2.00 | 11.67 | -  | <b>6.11</b> |        |
| US 720 BGII              | -                 | 5.75  | 2.00 | 18.33 | -  | <b>8.69</b> |        |
| KCH 9298 BGII            | -                 | 4.42  | 3.00 | 11.67 | -  | <b>6.36</b> |        |
| 24SS66 BGII              | -                 | 5.42  | 1.00 | 11.67 | -  | <b>6.03</b> |        |
| GBCH 6666 BGII           | -                 | 3.67  | 2.00 | 10.67 | -  | <b>5.45</b> |        |
| CORE 103 BGII            | -                 | 5.17  | 2.00 | 18.33 | -  | <b>8.50</b> |        |
| Daftari 615 BG II (ZC 2) | -                 | 4.92  | 1.00 | 18.33 | -  | <b>8.08</b> |        |
| RSCH 369 BGII            | -                 | 3.58  | 2.00 | 12.00 | -  | <b>5.86</b> |        |
| RCH 1121 BGII            | -                 | 10.67 | 3.00 | 13.67 | -  | <b>9.11</b> |        |
| KCH 9294 BGII            | -                 | 12.08 | 1.00 | 11.67 | -  | <b>8.25</b> |        |
| CCH 529 Bt2              | -                 | 11.17 | 2.00 | 10.33 | -  | <b>7.83</b> |        |
| SP7679 BGII (ZC 1)       | -                 | 6.42  | 3.00 | 13.33 | -  | <b>7.58</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry            | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|--------------------------|------------------------------------|------|------|------|------|-------------|--------|
|                          | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| MSCH 639 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RSCH 999 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RCH 1116 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| US 720 BGII              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| KCH 9298 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| 24SS66 BGII              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| GBCH 6666 BGII           | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CORE 103 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Daftari 615 BG II (ZC 2) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RSCH 369 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RCH 1121 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| KCH 9294 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH 529 Bt2              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SP7679 BGII (ZC 1)       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole





## Reaction to Diseases

**Table 12(a): Advanced Evaluation Trial-I of Intra-hirsutum Hybrids –Rainfed (AET-I Hybrids RF) under Protected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Protected conditions: UAS, Dharwad |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-------------------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | ALS                                                                     |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                                     | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 9      | 56031   | MSCH 639 BGII            | 22.4                                                                    | R  | 10.7 | R  | 18.8 | R  | 17.7 | R  |
| 13     | 56032   | RSCH 999 BGII            | 23.0                                                                    | R  | 9.5  | R  | 19.6 | R  | 19.0 | R  |
| 1      | 56033   | RCH 1116 BGII            | 19.9                                                                    | R  | 9.7  | R  | 19.5 | R  | 19.1 | R  |
| 6      | 56034   | US 720 BGII              | 24.5                                                                    | R  | 10.3 | R  | 21.3 | R  | 17.7 | R  |
| 12     | 56035   | KCH 9298 BGII            | 22.8                                                                    | R  | 11.1 | R  | 20.3 | R  | 17.4 | R  |
| 5      | 56036   | 24SS66 BGII              | 22.8                                                                    | R  | 9.8  | R  | 19.9 | R  | 17.1 | R  |
| 10     | 56037   | GBCH 6666 BGII           | 23.2                                                                    | R  | 10.8 | R  | 21.4 | R  | 17.2 | R  |
| 7      | 56038   | CORE 103 BGII            | 21.7                                                                    | R  | 10.5 | R  | 21.6 | R  | 18.4 | R  |
| 3      | 56039   | Daftari 615 BG II (ZC 2) | 21.3                                                                    | R  | 10.8 | R  | 21.3 | R  | 18.2 | R  |
| 11     | 56040   | RSCH 369 BGII            | 24.1                                                                    | R  | 9.9  | R  | 21.6 | R  | 17.2 | R  |
| 8      | 56041   | RCH 1121 BGII            | 21.3                                                                    | R  | 8.8  | R  | 18.8 | R  | 16.9 | R  |
| 4      | 56042   | KCH 9294 BGII            | 20.7                                                                    | R  | 10.8 | R  | 21.7 | R  | 18.9 | R  |
| 2      | 56043   | CCH 529 Bt2              | 30.5                                                                    | MR | 10.7 | R  | 21.7 | R  | 19.0 | R  |
| 14     | 56044   | SP7679 BGII (ZC 1)       | 21.6                                                                    | R  | 10.7 | R  | 22.8 | R  | 17.6 | R  |



## Evaluation under Unprotected Condition for Insect pests

### Reaction to Insect Pest

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**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry            | Aphid (Average of 3 leaves/plant) |      |      |       |             | Remark |
|--------------------------|-----------------------------------|------|------|-------|-------------|--------|
|                          | DH                                | PE   | AD   | MU    | Mean        |        |
| MSCH 639 BGII            | 6.69                              | 1.67 | 2.18 | 4.76  | <b>3.82</b> | BETL   |
| RSCH 999 BGII            | 5.96                              | 0.67 | 1.25 | 4.98  | <b>3.21</b> | BETL   |
| RCH 1116 BGII            | 7.33                              | 0.67 | 1.85 | 5.03  | <b>3.72</b> | BETL   |
| US 720 BGII              | 6.64                              | 0.67 | 1.17 | 10.32 | <b>4.70</b> | BETL   |
| KCH 9298 BGII            | 7.42                              | 1.33 | 3.07 | 3.57  | <b>3.85</b> | BETL   |
| 24SS66 BGII              | 7.02                              | 1.33 | 2.34 | 6.75  | <b>4.36</b> | BETL   |
| GBCH 6666 BGII           | 7.58                              | 1.33 | 1.52 | 3.04  | <b>3.37</b> | BETL   |
| CORE 103 BGII            | 8.04                              | 0.67 | 1.04 | 9.39  | <b>4.79</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 7.69                              | 2.00 | 1.23 | 24.08 | <b>8.75</b> | BETL   |
| RSCH 369 BGII            | 8.24                              | 0.33 | 2.60 | 8.73  | <b>4.98</b> | BETL   |
| RCH 1121 BGII            | 6.89                              | 1.67 | 2.83 | 8.47  | <b>4.96</b> | BETL   |
| KCH 9294 BGII            | 7.62                              | 1.33 | 0.80 | 9.53  | <b>4.82</b> | BETL   |
| CCH 529 Bt2              | 7.02                              | 1.33 | 1.66 | 5.03  | <b>3.76</b> | BETL   |
| SP7679 BGII (ZC 1)       | 8.04                              | 1.33 | 1.51 | 5.16  | <b>4.01</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions –  
Leafhopper**

| Name of Entry            | Leafhopper (Average of 3 leaves/plant) |       |      |      |             | Remark |
|--------------------------|----------------------------------------|-------|------|------|-------------|--------|
|                          | DH                                     | PE    | AD   | MU   | Mean        |        |
| MSCH 639 BGII            | 2.70                                   | 11.67 | 0.31 | 2.36 | <b>4.26</b> | BETL   |
| RSCH 999 BGII            | 2.84                                   | 10.00 | 0.40 | 1.52 | <b>3.69</b> | BETL   |
| RCH 1116 BGII            | 3.20                                   | 6.67  | 0.29 | 0.84 | <b>2.75</b> | BETL   |
| US 720 BGII              | 2.80                                   | 6.33  | 0.24 | 2.19 | <b>2.89</b> | BETL   |
| KCH 9298 BGII            | 2.64                                   | 8.33  | 0.15 | 0.68 | <b>2.95</b> | BETL   |
| 24SS66 BGII              | 3.17                                   | 7.33  | 0.09 | 1.01 | <b>2.90</b> | BETL   |
| GBCH 6666 BGII           | 2.56                                   | 11.67 | 0.13 | 1.35 | <b>3.93</b> | BETL   |
| CORE 103 BGII            | 1.71                                   | 7.67  | 0.17 | 0.84 | <b>2.60</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 2.44                                   | 7.67  | 0.26 | 1.52 | <b>2.97</b> | BETL   |
| RSCH 369 BGII            | 2.12                                   | 11.33 | 0.40 | 1.86 | <b>3.93</b> | BETL   |
| RCH 1121 BGII            | 1.80                                   | 4.67  | 0.24 | 1.86 | <b>2.14</b> | BETL   |
| KCH 9294 BGII            | 3.02                                   | 5.33  | 0.24 | 1.69 | <b>2.57</b> | BETL   |
| CCH 529 Bt2              | 2.09                                   | 7.67  | 0.33 | 1.18 | <b>2.82</b> | BETL   |
| SP7679 BGII (ZC 1)       | 2.02                                   | 5.67  | 0.15 | 3.71 | <b>2.89</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry            | JIG/plant |    |    |    |      | Remark |
|--------------------------|-----------|----|----|----|------|--------|
|                          | DH        | PE | AD | MU | Mean |        |
| MSCH 639 BGII            | II        | -  | -  | -  | II   |        |
| RSCH 999 BGII            | II        | -  | -  | -  | II   |        |
| RCH 1116 BGII            | II        | -  | -  | -  | II   |        |
| US 720 BGII              | II        | -  | -  | -  | II   |        |
| KCH 9298 BGII            | II        | -  | -  | -  | II   |        |
| 24SS66 BGII              | II        | -  | -  | -  | II   |        |
| GBCH 6666 BGII           | II        | -  | -  | -  | II   |        |
| CORE 103 BGII            | I         | -  | -  | -  | I    |        |
| Daftari 615 BG II (ZC 2) | I         | -  | -  | -  | I    |        |
| RSCH 369 BGII            | I         | -  | -  | -  | I    |        |
| RCH 1121 BGII            | I         | -  | -  | -  | I    |        |
| KCH 9294 BGII            | II        | -  | -  | -  | II   |        |
| CCH 529 Bt2              | I         | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1)       | I         | -  | -  | -  | I    |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry            | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|--------------------------|------------------------------------|------|------|------|-------------|-------------|
|                          | DH                                 | PE   | AD   | MU   | Mean        |             |
| MSCH 639 BGII            | 15.64                              | 3.00 | 4.33 | 1.37 | <b>6.09</b> | <b>BETL</b> |
| RSCH 999 BGII            | 15.51                              | 2.33 | 2.38 | 1.43 | <b>5.41</b> | <b>BETL</b> |
| RCH 1116 BGII            | 13.93                              | 2.33 | 3.45 | 3.86 | <b>5.89</b> | <b>BETL</b> |
| US 720 BGII              | 13.80                              | 2.67 | 2.47 | 4.53 | <b>5.87</b> | <b>BETL</b> |
| KCH 9298 BGII            | 13.13                              | 2.67 | 2.48 | 6.39 | <b>6.17</b> | <b>BETL</b> |
| 24SS66 BGII              | 19.80                              | 2.00 | 2.11 | 2.37 | <b>6.57</b> | <b>BETL</b> |
| GBCH 6666 BGII           | 14.84                              | 2.33 | 2.60 | 6.57 | <b>6.59</b> | <b>BETL</b> |
| CORE 103 BGII            | 16.64                              | 3.67 | 2.62 | 4.14 | <b>6.77</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | 16.33                              | 2.33 | 2.42 | 1.98 | <b>5.77</b> | <b>BETL</b> |
| RSCH 369 BGII            | 21.13                              | 2.33 | 2.13 | 1.76 | <b>6.84</b> | <b>BETL</b> |
| RCH 1121 BGII            | 14.31                              | 2.33 | 2.11 | 3.07 | <b>5.46</b> | <b>BETL</b> |
| KCH 9294 BGII            | 13.60                              | 3.33 | 2.33 | 3.74 | <b>5.75</b> | <b>BETL</b> |
| CCH 529 Bt2              | 20.96                              | 2.00 | 2.29 | 3.34 | <b>7.15</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)       | 19.38                              | 2.67 | 0.42 | 5.17 | <b>6.91</b> | <b>BETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry            | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|--------------------------|--------------------------------------|------|------|------|-------------|--------|
|                          | DH                                   | PE   | AD   | MU   | Mean        |        |
| MSCH 639 BGII            | 1.40                                 | 0.67 | 0.11 | 1.22 | <b>0.85</b> | BETL   |
| RSCH 999 BGII            | 1.37                                 | 1.33 | 0.13 | 1.37 | <b>1.05</b> | BETL   |
| RCH 1116 BGII            | 1.30                                 | 0.67 | 0.49 | 0.47 | <b>0.73</b> | BETL   |
| US 720 BGII              | 1.10                                 | 1.67 | 0.29 | 0.63 | <b>0.92</b> | BETL   |
| KCH 9298 BGII            | 1.03                                 | 1.33 | 0.18 | 0.21 | <b>0.69</b> | BETL   |
| 24SS66 BGII              | 1.22                                 | 1.67 | 0.15 | 0.16 | <b>0.80</b> | BETL   |
| GBCH 6666 BGII           | 1.01                                 | 0.67 | 0.15 | 0.11 | <b>0.48</b> | BETL   |
| CORE 103 BGII            | 0.86                                 | 1.00 | 0.22 | 0.58 | <b>0.66</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 0.97                                 | 1.33 | 0.15 | 0.63 | <b>0.77</b> | BETL   |
| RSCH 369 BGII            | 1.02                                 | 1.67 | 0.22 | 0.95 | <b>0.97</b> | BETL   |
| RCH 1121 BGII            | 1.23                                 | 1.67 | 0.22 | 0.95 | <b>1.02</b> | BETL   |
| KCH 9294 BGII            | 1.08                                 | 0.67 | 0.24 | 0.74 | <b>0.68</b> | BETL   |
| CCH 529 Bt2              | 0.83                                 | 0.67 | 0.42 | 1.11 | <b>0.76</b> | BETL   |
| SP7679 BGII (ZC 1)       | 1.02                                 | 0.67 | 0.26 | 0.63 | <b>0.65</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry            | Natural Enemies (No./plant) |      |      |    |             | Remark |
|--------------------------|-----------------------------|------|------|----|-------------|--------|
|                          | DH                          | PE   | AD   | MU | Mean        |        |
| MSCH 639 BGII            | 1.16                        | 0.00 | 0.07 | -  | <b>0.41</b> |        |
| RSCH 999 BGII            | 0.98                        | 0.00 | 0.07 | -  | <b>0.35</b> |        |
| RCH 1116 BGII            | 1.07                        | 0.00 | 0.00 | -  | <b>0.36</b> |        |
| US 720 BGII              | 0.82                        | 0.00 | 0.00 | -  | <b>0.27</b> |        |
| KCH 9298 BGII            | 0.53                        | 0.00 | 0.20 | -  | <b>0.24</b> |        |
| 24SS66 BGII              | 0.51                        | 0.00 | 0.20 | -  | <b>0.24</b> |        |
| GBCH 6666 BGII           | 0.60                        | 0.00 | 0.20 | -  | <b>0.27</b> |        |
| CORE 103 BGII            | 0.73                        | 0.00 | 0.07 | -  | <b>0.27</b> |        |
| Daftari 615 BG II (ZC 2) | 0.55                        | 0.00 | 0.20 | -  | <b>0.25</b> |        |
| RSCH 369 BGII            | 0.60                        | 0.00 | 0.07 | -  | <b>0.22</b> |        |
| RCH 1121 BGII            | 0.67                        | 0.00 | 0.20 | -  | <b>0.29</b> |        |
| KCH 9294 BGII            | 1.27                        | 0.00 | 0.00 | -  | <b>0.42</b> |        |
| CCH 529 Bt2              | 0.44                        | 0.00 | 0.54 | -  | <b>0.33</b> |        |
| SP7679 BGII (ZC 1)       | 0.71                        | 0.00 | 0.44 | -  | <b>0.38</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions– *Helicoverpa armigera***

| Name of Entry            | <i>Helicoverpa armigera</i> (No. /5plants) |      |      |    |      | Remark |
|--------------------------|--------------------------------------------|------|------|----|------|--------|
|                          | DH                                         | PE   | AD   | MU | Mean |        |
| MSCH 639 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Spotted/ Spiny Bollworms**

| Name of Entry            | Spotted Bollworms (No. /5 plants) |      |      |    |      | Remark |
|--------------------------|-----------------------------------|------|------|----|------|--------|
|                          | DH                                | PE   | AD   | MU | Mean |        |
| MSCH 639 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry            | <i>Spodoptera litura</i> (No. /5 plants) |      |      |    |      | Remark |
|--------------------------|------------------------------------------|------|------|----|------|--------|
|                          | DH                                       | PE   | AD   | MU | Mean |        |
| MSCH 639 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry            | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |    |      | Remark |
|--------------------------|---------------------------------------------------------|------|------|----|------|--------|
|                          | DH                                                      | PE   | AD#  | MU | Mean |        |
| MSCH 639 BGII            | 2.50                                                    | 1.94 | 0.00 | -  | 1.48 | AETL   |
| RSCH 999 BGII            | 1.83                                                    | 2.27 | 0.60 | -  | 1.57 | AETL   |
| RCH 1116 BGII            | 2.83                                                    | 1.44 | 0.00 | -  | 1.42 | AETL   |
| US 720 BGII              | 2.67                                                    | 1.60 | 1.00 | -  | 1.76 | AETL   |
| KCH 9298 BGII            | 1.83                                                    | 2.27 | 0.20 | -  | 1.43 | AETL   |
| 24SS66 BGII              | 2.17                                                    | 1.60 | 0.00 | -  | 1.26 | AETL   |
| GBCH 6666 BGII           | 1.33                                                    | 1.27 | 0.60 | -  | 1.07 | AETL   |
| CORE 103 BGII            | 2.00                                                    | 1.50 | 0.60 | -  | 1.37 | AETL   |
| Daftari 615 BG II (ZC 2) | 1.00                                                    | 1.27 | 0.40 | -  | 0.89 | BETL   |
| RSCH 369 BGII            | 1.50                                                    | 1.87 | 0.80 | -  | 1.39 | AETL   |
| RCH 1121 BGII            | 2.33                                                    | 1.47 | 0.60 | -  | 1.47 | AETL   |
| KCH 9294 BGII            | 3.83                                                    | 1.50 | 0.80 | -  | 2.04 | AETL   |
| CCH 529 Bt2              | 2.00                                                    | 2.07 | 0.60 | -  | 1.56 | AETL   |
| SP7679 BGII (ZC 1)       | 2.17                                                    | 1.77 | 0.20 | -  | 1.38 | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # based on 5 observations



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll  
Damage due to ABW/SBW/TC**

| Name of Entry            | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |      | Remark |
|--------------------------|-----------------------------------------|----|------|----|------|--------|
|                          | DH                                      | PE | AD   | MU | Mean |        |
| MSCH 639 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| RSCH 999 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1116 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| US 720 BGII              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9298 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| 24SS66 BGII              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| GBCH 6666 BGII           | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CORE 103 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| RSCH 369 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1121 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9294 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 529 Bt2              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll  
Damage (Pink Bollworm)**

| Name of Entry            | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |       | Remark |
|--------------------------|-------------------------------------------------------|----|-------|----|-------|--------|
|                          | DH                                                    | PE | AD    | MU | Mean  |        |
| MSCH 639 BGII            | 15.00                                                 | -  | 24.00 | -  | 19.50 | AETL   |
| RSCH 999 BGII            | 10.00                                                 | -  | 16.00 | -  | 13.00 | AETL   |
| RCH 1116 BGII            | 11.67                                                 | -  | 20.00 | -  | 15.84 | AETL   |
| US 720 BGII              | 15.00                                                 | -  | 24.00 | -  | 19.50 | AETL   |
| KCH 9298 BGII            | 10.00                                                 | -  | 20.00 | -  | 15.00 | AETL   |
| 24SS66 BGII              | 11.67                                                 | -  | 20.00 | -  | 15.84 | AETL   |
| GBCH 6666 BGII           | 15.00                                                 | -  | 18.00 | -  | 16.50 | AETL   |
| CORE 103 BGII            | 15.00                                                 | -  | 24.00 | -  | 19.50 | AETL   |
| Daftari 615 BG II (ZC 2) | 10.00                                                 | -  | 20.00 | -  | 15.00 | AETL   |
| RSCH 369 BGII            | 15.00                                                 | -  | 18.00 | -  | 16.50 | AETL   |
| RCH 1121 BGII            | 13.33                                                 | -  | 16.00 | -  | 14.67 | AETL   |
| KCH 9294 BGII            | 26.67                                                 | -  | 22.00 | -  | 24.34 | AETL   |
| CCH 529 Bt2              | 11.67                                                 | -  | 22.00 | -  | 16.84 | AETL   |
| SP7679 BGII (ZC 1)       | 11.67                                                 | -  | 10.00 | -  | 10.84 | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Open Boll****Damage**

| Name of Entry            | Open Boll Damage (%) |       |       |    |              | Remark |
|--------------------------|----------------------|-------|-------|----|--------------|--------|
|                          | DH                   | PE    | AD    | MU | Mean         |        |
| MSCH 639 BGII            | 9.47                 | 16.00 | 10.00 | -  | <b>11.82</b> |        |
| RSCH 999 BGII            | 9.13                 | 14.00 | 12.00 | -  | <b>11.71</b> |        |
| RCH 1116 BGII            | 12.02                | 7.00  | 15.00 | -  | <b>11.34</b> |        |
| US 720 BGII              | 7.34                 | 5.00  | 10.00 | -  | <b>7.45</b>  |        |
| KCH 9298 BGII            | 6.86                 | 14.00 | 15.00 | -  | <b>11.95</b> |        |
| 24SS66 BGII              | 7.90                 | 8.00  | 12.00 | -  | <b>9.30</b>  |        |
| GBCH 6666 BGII           | 8.98                 | 12.00 | 10.00 | -  | <b>10.33</b> |        |
| CORE 103 BGII            | 12.06                | 8.00  | 15.00 | -  | <b>11.69</b> |        |
| Daftari 615 BG II (ZC 2) | 6.82                 | 9.00  | 15.00 | -  | <b>10.27</b> |        |
| RSCH 369 BGII            | 6.84                 | 13.00 | 10.00 | -  | <b>9.95</b>  |        |
| RCH 1121 BGII            | 7.90                 | 12.00 | 10.00 | -  | <b>9.97</b>  |        |
| KCH 9294 BGII            | 12.59                | 11.00 | 15.00 | -  | <b>12.86</b> |        |
| CCH 529 Bt2              | 8.59                 | 10.00 | 15.00 | -  | <b>11.20</b> |        |
| SP7679 BGII (ZC 1)       | 10.64                | 10.00 | 5.00  | -  | <b>8.55</b>  |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Locule****Damage**

| Name of Entry            | Locule Damage (%) |      |       |    |              | Remark |
|--------------------------|-------------------|------|-------|----|--------------|--------|
|                          | DH                | PE   | AD    | MU | Mean         |        |
| MSCH 639 BGII            | 9.67              | 6.00 | 19.00 | -  | <b>11.56</b> |        |
| RSCH 999 BGII            | 13.58             | 4.00 | 12.50 | -  | <b>10.03</b> |        |
| RCH 1116 BGII            | 11.58             | 3.00 | 15.60 | -  | <b>10.06</b> |        |
| US 720 BGII              | 12.17             | 2.00 | 16.50 | -  | <b>10.22</b> |        |
| KCH 9298 BGII            | 8.42              | 4.00 | 12.50 | -  | <b>8.31</b>  |        |
| 24SS66 BGII              | 10.42             | 3.00 | 16.00 | -  | <b>9.81</b>  |        |
| GBCH 6666 BGII           | 6.92              | 4.00 | 12.50 | -  | <b>7.81</b>  |        |
| CORE 103 BGII            | 11.58             | 4.00 | 17.50 | -  | <b>11.03</b> |        |
| Daftari 615 BG II (ZC 2) | 8.25              | 3.00 | 17.00 | -  | <b>9.42</b>  |        |
| RSCH 369 BGII            | 8.17              | 3.00 | 18.00 | -  | <b>9.72</b>  |        |
| RCH 1121 BGII            | 18.25             | 4.00 | 10.00 | -  | <b>10.75</b> |        |
| KCH 9294 BGII            | 19.08             | 2.00 | 14.00 | -  | <b>11.69</b> |        |
| CCH 529 Bt2              | 11.17             | 3.00 | 13.00 | -  | <b>9.06</b>  |        |
| SP7679 BGII (ZC 1)       | 11.67             | 4.00 | 7.50  | -  | <b>7.72</b>  |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





## Reaction to Diseases

**Table 12(b): Advanced Evaluation Trial-I of Intra-hirsutum Hybrids –Rainfed (AET-I Hybrids RF) under Unprotected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Unprotected conditions : UAS, Dharwad |    |      |    |      |    |      |    |
|--------|---------|--------------------------|----------------------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | ALS                                                                        |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                                        | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 9      | 56031   | MSCH 639 BGII            | 22.4                                                                       | R  | 12.4 | R  | 16.2 | R  | 15.9 | R  |
| 13     | 56032   | RSCH 999 BGII            | 22.6                                                                       | R  | 12.3 | R  | 15.8 | R  | 16.8 | R  |
| 1      | 56033   | RCH 1116 BGII            | 20.1                                                                       | R  | 11.9 | R  | 17.4 | R  | 16.8 | R  |
| 6      | 56034   | US 720 BGII              | 23.8                                                                       | R  | 11.2 | R  | 16.2 | R  | 16.8 | R  |
| 12     | 56035   | KCH 9298 BGII            | 22.6                                                                       | R  | 11.8 | R  | 15.7 | R  | 13.3 | R  |
| 5      | 56036   | 24SS66 BGII              | 21.2                                                                       | R  | 11.9 | R  | 16.0 | R  | 16.9 | R  |
| 10     | 56037   | GBCH 6666 BGII           | 22.8                                                                       | R  | 11.2 | R  | 17.4 | R  | 16.7 | R  |
| 7      | 56038   | CORE 103 BGII            | 21.9                                                                       | R  | 11.5 | R  | 14.1 | R  | 16.6 | R  |
| 3      | 56039   | Daftari 615 BG II (ZC 2) | 21.7                                                                       | R  | 11.1 | R  | 18.3 | R  | 17.4 | R  |
| 11     | 56040   | RSCH 369 BGII            | 24.3                                                                       | R  | 11.5 | R  | 16.2 | R  | 17.2 | R  |
| 8      | 56041   | RCH 1121 BGII            | 21.0                                                                       | R  | 11.4 | R  | 14.1 | R  | 16.8 | R  |
| 4      | 56042   | KCH 9294 BGII            | 19.8                                                                       | R  | 13.1 | R  | 15.0 | R  | 16.6 | R  |
| 2      | 56043   | CCH 529 Bt2              | 28.5                                                                       | MR | 11.9 | R  | 16.7 | R  | 18.9 | R  |
| 14     | 56044   | SP7679 BGII (ZC 1)       | 21.4                                                                       | R  | 12.5 | R  | 14.3 | R  | 19.4 | R  |

Table 12(c): Advanced Evaluation Trial-I of Intra-hirsutum Hybrids –Rainfed (AET-I Hybrids RF) under Protected and Unprotected conditions

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Protected conditions |    |     |    |      |    |     |    | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |     |    |
|--------|---------|--------------------------|-----------------------------------------------------------|----|-----|----|------|----|-----|----|-------------------------------------------------------------|----|------|----|------|----|-----|----|
|        |         |                          | Kaveri, Hyderabad                                         |    |     |    |      |    |     |    | Kaveri, Hyderabad                                           |    |      |    |      |    |     |    |
|        |         |                          | ALS                                                       |    | BLB |    | GM   |    | TSV |    | ALS                                                         |    | BLB  |    | GM   |    | TSV |    |
|        |         |                          | PDI                                                       | DR | PDI | DR | PDI  | DR | PDI | DR | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 9      | 56031   | MSCH 639 BGII            | 9.9                                                       | R  | 3.8 | R  | 5.6  | R  | 1.8 | R  | 11.8                                                        | R  | 11.0 | R  | 12.5 | R  | 4.3 | R  |
| 13     | 56032   | RSCH 999 BGII            | 8.3                                                       | R  | 3.3 | R  | 5.0  | R  | 2.0 | R  | 17.0                                                        | R  | 10.5 | R  | 15.9 | R  | 4.4 | R  |
| 1      | 56033   | RCH 1116 BGII            | 6.9                                                       | R  | 4.9 | R  | 8.6  | R  | 3.0 | R  | 14.6                                                        | R  | 13.5 | R  | 16.3 | R  | 5.3 | R  |
| 6      | 56034   | US 720 BGII              | 6.6                                                       | R  | 3.5 | R  | 11.7 | R  | 2.9 | R  | 15.5                                                        | R  | 10.8 | R  | 19.7 | R  | 5.0 | R  |
| 12     | 56035   | KCH 9298 BGII            | 2.7                                                       | R  | 2.2 | R  | 4.7  | R  | 1.0 | R  | 11.3                                                        | R  | 7.8  | R  | 11.0 | R  | 2.8 | R  |
| 5      | 56036   | 24SS66 BGII              | 3.2                                                       | R  | 3.2 | R  | 8.4  | R  | 2.0 | R  | 15.5                                                        | R  | 9.5  | R  | 14.3 | R  | 4.2 | R  |
| 10     | 56037   | GBCH 6666 BGII           | 7.8                                                       | R  | 3.3 | R  | 11.5 | R  | 1.9 | R  | 12.3                                                        | R  | 10.3 | R  | 16.3 | R  | 4.1 | R  |
| 7      | 56038   | CORE 103 BGII            | 10.0                                                      | R  | 4.1 | R  | 6.9  | R  | 2.7 | R  | 17.5                                                        | R  | 11.3 | R  | 12.8 | R  | 4.7 | R  |
| 3      | 56039   | Daftari 615 BG II (ZC 2) | 9.3                                                       | R  | 3.9 | R  | 10.6 | R  | 2.3 | R  | 14.3                                                        | R  | 12.3 | R  | 16.7 | R  | 5.5 | R  |
| 11     | 56040   | RSCH 369 BGII            | 8.0                                                       | R  | 2.6 | R  | 9.8  | R  | 2.8 | R  | 13.8                                                        | R  | 8.8  | R  | 17.5 | R  | 3.0 | R  |
| 8      | 56041   | RCH 1121 BGII            | 3.0                                                       | R  | 3.2 | R  | 8.9  | R  | 1.5 | R  | 13.3                                                        | R  | 10.5 | R  | 15.0 | R  | 3.8 | R  |
| 4      | 56042   | KCH 9294 BGII            | 3.2                                                       | R  | 2.3 | R  | 5.5  | R  | 1.0 | R  | 11.3                                                        | R  | 8.3  | R  | 10.5 | R  | 2.5 | R  |
| 2      | 56043   | CCH 529 Bt2              | 10.7                                                      | R  | 4.5 | R  | 12.5 | R  | 3.6 | R  | 17.5                                                        | R  | 11.0 | R  | 19.0 | R  | 5.6 | R  |
| 14     | 56044   | SP7679 BGII (ZC 1)       | 9.0                                                       | R  | 5.3 | R  | 10.4 | R  | 2.8 | R  | 15.5                                                        | R  | 12.5 | R  | 16.7 | R  | 5.1 | R  |

## Advanced Evaluation Trial of Intra-Hirsutum Bt Hybrids (II) - Rainfed

### *Constitution of Trial*

The trial was constituted with 11 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids as furnished below.

| S. No. | Code-I | Code -II | Entries                  | Sponsored by        |
|--------|--------|----------|--------------------------|---------------------|
| 1      | 6      | 56051    | SP7679 BGII (ZC 1)       |                     |
| 2      | 10     | 56052    | SRCH 369 BGII            | Sri Rama            |
| 3      | 1      | 56053    | BIO 6720 BGII            | Bioseed             |
| 4      | 13     | 56054    | DACH 85S85 BGII          | Dharti              |
| 5      | 3      | 56055    | ARCH 771 BGII            | Ankur Seeds         |
| 6      | 8      | 56056    | C 9340 BGII              | Mahyco              |
| 7      | 4      | 56057    | RCH 1060 BGII            | Rasi Seeds (P) Ltd, |
| 8      | 12     | 56058    | KCH 9227 BGII            | Kaveri Seed         |
| 9      | 9      | 56059    | ARCH 781 BGII            | Ankur Seeds         |
| 10     | 11     | 56060    | RCH 1039 BGII            | Rasi Seeds (P) Ltd, |
| 11     | 7      | 56061    | CORE 101 BGII            | Coregenes           |
| 12     | 2      | 56062    | Daftari 615 BG II (ZC 2) |                     |
| 13     | 5      | 56063    | KCH 9226 BGII            | Kaveri Seed         |

The trial was conducted in nine locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, Perambalur, Warangal (Ankur), Hyderabad (Kaveri), Mokhila (Bioseed) and Guntur (Core seeds).

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Recommended spacing for the hybrid has been followed.

**Number of rows:** 4 rows of 6 meters per entry with four replications



Data recorded:**Biometric evaluation****Plant height (cm) at harvest in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur<br>(Core seeds) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|--------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 127.1   | 165.9    | 118.4   | 187.2      | 120.7               | 141.5                 | 143.0                | 154.6                  | <b>144.8</b> |
| 2      | SRCH 369 BGII                   | 129.5   | 172.7    | 116.1   | 198.4      | 133.0               | 148.7                 | 149.0                | 156.2                  | <b>150.5</b> |
| 3      | BIO 6720 BGII                   | 140.9   | 201.8    | 120.2   | 192.7      | 137.7               | 148.5                 | 154.3                | 154.8                  | <b>156.4</b> |
| 4      | DACH 85S85 BGII                 | 118.7   | 179.4    | 108.6   | 185.2      | 122.7               | 137.0                 | 135.7                | 153.9                  | <b>142.7</b> |
| 5      | ARCH 771 BGII                   | 123.4   | 159.2    | 120.2   | 179.9      | 130.7               | 138.6                 | 141.7                | 158.2                  | <b>144.0</b> |
| 6      | C 9340 BGII                     | 128.7   | 183.4    | 102.4   | 192.5      | 119.7               | 142.3                 | 150.3                | 156.8                  | <b>147.0</b> |
| 7      | RCH 1060 BGII                   | 125.4   | 187.5    | 111.7   | 191.6      | 124.7               | 140.9                 | 155.0                | 157.6                  | <b>149.3</b> |
| 8      | KCH 9227 BGII                   | 138.5   | 190.1    | 123.2   | 217.4      | 127.0               | 141.1                 | 153.7                | 148.9                  | <b>155.0</b> |
| 9      | ARCH 781 BGII                   | 140.2   | 197.1    | 113.4   | 185.0      | 129.7               | 143.7                 | 137.7                | 156.3                  | <b>150.4</b> |
| 10     | RCH 1039 BGII                   | 112.7   | 177.6    | 111.3   | 171.0      | 116.3               | 134.6                 | 138.0                | 144.5                  | <b>138.3</b> |
| 11     | CORE 101 BGII                   | 147.6   | 236.1    | 125.8   | 218.6      | 136.0               | 162.3                 | 158.3                | 160.6                  | <b>168.2</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 143.4   | 189.7    | 123.2   | 186.5      | 138.3               | 144.1                 | 154.3                | 156.0                  | <b>154.4</b> |
| 13     | KCH 9226 BGII                   | 142.6   | 203.1    | 114.8   | 205.9      | 130.0               | 143.4                 | 156.3                | 154.4                  | <b>156.3</b> |
|        | CD @ 5%                         | 11.2    | 26.5     | 14.6    | 19.2       |                     | 1.9                   | 10.4                 |                        |              |
|        | CV %                            | 4.9     | 8.4      | 7.5     | 6.2        |                     | 4.5                   | 4.2                  |                        |              |

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**Number of monopodia in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur<br>(Core seeds) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 0.9     | 2.3      | 2.1     | 3.3        | 1.7                 | 1.7                   | 1.7                  | 1.1                    | <b>1.9</b> |
| 2      | SRCH 369 BGII                   | 1.0     | 1.3      | 1.7     | 2.1        | 1.6                 | 1.1                   | 1.3                  | 1.2                    | <b>1.4</b> |
| 3      | BIO 6720 BGII                   | 0.9     | 1.5      | 1.8     | 1.3        | 1.7                 | 1.1                   | 1.0                  | 0.9                    | <b>1.3</b> |
| 4      | DACH 85S85 BGII                 | 1.5     | 2.2      | 2.1     | 2.2        | 1.6                 | 1.1                   | 1.7                  | 1.3                    | <b>1.7</b> |
| 5      | ARCH 771 BGII                   | 0.5     | 1.9      | 1.0     | 2.7        | 1.4                 | 1.3                   | 1.0                  | 1.1                    | <b>1.4</b> |
| 6      | C 9340 BGII                     | 1.0     | 2.7      | 1.9     | 1.9        | 1.2                 | 1.1                   | 1.0                  | 1.3                    | <b>1.5</b> |
| 7      | RCH 1060 BGII                   | 0.6     | 1.7      | 2.0     | 1.9        | 1.1                 | 1.0                   | 1.0                  | 1.2                    | <b>1.3</b> |
| 8      | KCH 9227 BGII                   | 0.8     | 1.3      | 1.8     | 2.4        | 1.6                 | 1.2                   | 0.7                  | 1.2                    | <b>1.4</b> |
| 9      | ARCH 781 BGII                   | 1.1     | 1.8      | 1.6     | 1.8        | 1.2                 | 1.7                   | 0.7                  | 1.0                    | <b>1.4</b> |
| 10     | RCH 1039 BGII                   | 1.5     | 2.0      | 2.9     | 2.6        | 1.8                 | 1.7                   | 1.7                  | 1.3                    | <b>1.9</b> |
| 11     | CORE 101 BGII                   | 0.7     | 1.6      | 2.0     | 2.0        | 1.5                 | 1.3                   | 0.7                  | 1.1                    | <b>1.4</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 1.4     | 1.7      | 1.1     | 2.0        | 1.9                 | 1.1                   | 0.7                  | 1.0                    | <b>1.4</b> |
| 13     | KCH 9226 BGII                   | 0.5     | 1.1      | 1.3     | 1.9        | 1.8                 | 1.0                   | 1.0                  | 0.5                    | <b>1.1</b> |
|        | CD @ 5%                         | 0.6     | 0.7      | 0.5     | 0.9        |                     | 12.3                  | 0.7                  |                        |            |
|        | CV %                            | 37.7    | 23.6     | 17.7    | 24.9       |                     | 0.3                   | 4.1                  |                        |            |

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**Number of sympodia in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur<br>(Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 15.6    | 20.9     | 18.8    | 27.4       | 18.1                | 20.1                  | 17.0                 | 18.3                   | <b>19.5</b> |
| 2      | SRCH 369 BGII                   | 18.3    | 22.1     | 17.4    | 28.9       | 19.3                | 20.7                  | 19.3                 | 18.0                   | <b>20.5</b> |
| 3      | BIO 6720 BGII                   | 16.7    | 21.8     | 18.1    | 29.1       | 17.2                | 18.7                  | 17.7                 | 25.1                   | <b>20.6</b> |
| 4      | DACH 85S85 BGII                 | 13.7    | 20.0     | 16.3    | 27.8       | 16.3                | 17.3                  | 16.7                 | 18.1                   | <b>18.3</b> |
| 5      | ARCH 771 BGII                   | 15.5    | 19.4     | 17.6    | 27.1       | 18.5                | 16.3                  | 16.7                 | 18.5                   | <b>18.7</b> |
| 6      | C 9340 BGII                     | 16.1    | 23.5     | 18.1    | 29.5       | 17.9                | 19.7                  | 18.3                 | 18.7                   | <b>20.2</b> |
| 7      | RCH 1060 BGII                   | 15.3    | 22.5     | 17.8    | 28.3       | 16.5                | 16.7                  | 18.3                 | 18.2                   | <b>19.2</b> |
| 8      | KCH 9227 BGII                   | 17.3    | 22.9     | 19.4    | 30.4       | 18.4                | 17.1                  | 18.7                 | 21.9                   | <b>20.8</b> |
| 9      | ARCH 781 BGII                   | 14.5    | 23.9     | 18.4    | 28.9       | 19.0                | 19.9                  | 16.0                 | 18.8                   | <b>19.9</b> |
| 10     | RCH 1039 BGII                   | 14.9    | 21.7     | 17.7    | 28.4       | 15.0                | 18.3                  | 17.3                 | 18.7                   | <b>19.0</b> |
| 11     | CORE 101 BGII                   | 16.5    | 25.7     | 18.8    | 29.3       | 19.8                | 18.0                  | 17.7                 | 24.9                   | <b>21.3</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 15.6    | 22.7     | 19.4    | 26.7       | 17.6                | 17.5                  | 17.0                 | 19.4                   | <b>19.5</b> |
| 13     | KCH 9226 BGII                   | 18.4    | 22.2     | 18.8    | 29.2       | 17.2                | 19.2                  | 20.0                 | 18.3                   | <b>20.4</b> |
|        | CD @ 5%                         | 1.8     | 2.9      | 2.6     | 2.2        |                     | 7.2                   | 2.4                  |                        |             |
|        | CV %                            | 6.7     | 7.8      | 8.3     | 4.9        |                     | 2.2                   | 8.1                  |                        |             |

**Boll weight (g) in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur<br>(Core seeds) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 5.1     | 5.7      | 6.8     | 5.2        | 4.3                 | 5.8                   | 6.3                  | 5.1                    | <b>5.5</b> |
| 2      | SRCH 369 BGII                   | 5.0     | 5.8      | 6.4     | 5.5        | 4.7                 | 4.9                   | 6.0                  | 5.3                    | <b>5.5</b> |
| 3      | BIO 6720 BGII                   | 4.6     | 5.5      | 6.1     | 5.2        | 5.2                 | 5.6                   | 6.4                  | 5.6                    | <b>5.5</b> |
| 4      | DACH 85S85 BGII                 | 5.0     | 5.9      | 5.8     | 5.5        | 4.2                 | 5.4                   | 6.1                  | 4.9                    | <b>5.4</b> |
| 5      | ARCH 771 BGII                   | 5.2     | 6.1      | 6.1     | 6.4        | 4.8                 | 5.7                   | 6.2                  | 5.0                    | <b>5.7</b> |
| 6      | C 9340 BGII                     | 5.1     | 5.9      | 6.4     | 4.4        | 4.3                 | 5.8                   | 5.7                  | 5.3                    | <b>5.4</b> |
| 7      | RCH 1060 BGII                   | 4.9     | 6.1      | 5.7     | 6.0        | 4.8                 | 5.1                   | 6.0                  | 5.1                    | <b>5.5</b> |
| 8      | KCH 9227 BGII                   | 4.5     | 5.6      | 5.7     | 4.2        | 4.6                 | 5.9                   | 5.4                  | 4.9                    | <b>5.1</b> |
| 9      | ARCH 781 BGII                   | 6.1     | 6.6      | 6.6     | 5.5        | 5.3                 | 5.9                   | 6.0                  | 5.3                    | <b>5.9</b> |
| 10     | RCH 1039 BGII                   | 4.9     | 5.7      | 5.5     | 5.2        | 4.7                 | 5.7                   | 5.7                  | 5.3                    | <b>5.3</b> |
| 11     | CORE 101 BGII                   | 5.1     | 6.6      | 6.2     | 5.1        | 3.9                 | 5.1                   | 6.4                  | 5.5                    | <b>5.5</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 5.2     | 5.6      | 7.1     | 5.7        | 5.2                 | 5.2                   | 6.1                  | 5.3                    | <b>5.7</b> |
| 13     | KCH 9226 BGII                   | 4.6     | 5.7      | 5.8     | 4.5        | 4.4                 | 5.8                   | 5.4                  | 5.3                    | <b>5.2</b> |
|        | CD @ 5%                         | 0.5     | NS       | 0.4     | 0.9        |                     | 3.4                   | 0.5                  |                        |            |
|        | CV %                            | 6.2     | 8.3      | 3.6     | 11.0       |                     | 0.3                   | 5.3                  |                        |            |

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Number of bolls / plant in Advanced Evaluation Trial of H X H hybrids - II

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur<br>(Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 19.5    | 19.0     | 19.8    | 43.2       | 15.7                | 30.4                  | 39.3                 | 51.8                   | <b>29.8</b> |
| 2      | SRCH 369 BGII                   | 24.7    | 22.3     | 22.0    | 52.4       | 18.9                | 25.2                  | 42.3                 | 47.7                   | <b>31.9</b> |
| 3      | BIO 6720 BGII                   | 22.1    | 17.5     | 24.7    | 40.7       | 20.3                | 29.9                  | 36.7                 | 62.5                   | <b>31.8</b> |
| 4      | DACH 85S85 BGII                 | 21.5    | 18.7     | 19.3    | 47.7       | 22.9                | 31.7                  | 36.7                 | 52.6                   | <b>31.4</b> |
| 5      | ARCH 771 BGII                   | 26.3    | 20.9     | 21.2    | 46.8       | 23.1                | 29.9                  | 38.7                 | 54.4                   | <b>32.7</b> |
| 6      | C 9340 BGII                     | 20.1    | 18.7     | 22.0    | 58.8       | 17.9                | 28.4                  | 39.0                 | 51.7                   | <b>32.1</b> |
| 7      | RCH 1060 BGII                   | 23.8    | 21.1     | 20.7    | 54.5       | 20.7                | 28.5                  | 41.3                 | 54.1                   | <b>33.1</b> |
| 8      | KCH 9227 BGII                   | 23.5    | 24.5     | 21.0    | 57.7       | 21.9                | 34.9                  | 49.3                 | 54.1                   | <b>35.9</b> |
| 9      | ARCH 781 BGII                   | 21.2    | 17.4     | 21.8    | 45.8       | 22.5                | 33.7                  | 35.0                 | 57.1                   | <b>31.8</b> |
| 10     | RCH 1039 BGII                   | 24.3    | 20.2     | 21.3    | 52.3       | 23.7                | 26.0                  | 51.3                 | 52.5                   | <b>34.0</b> |
| 11     | CORE 101 BGII                   | 23.2    | 16.6     | 21.8    | 45.6       | 19.5                | 26.9                  | 34.0                 | 64.2                   | <b>31.5</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 18.5    | 18.8     | 22.0    | 41.2       | 17.1                | 26.2                  | 36.7                 | 52.7                   | <b>29.2</b> |
| 13     | KCH 9226 BGII                   | 27.3    | 24.4     | 22.6    | 49.8       | 26.1                | 36.9                  | 41.7                 | 52.7                   | <b>35.2</b> |
|        | CD @ 5%                         | 4.7     | 4.0      | 4.0     | 11.0       |                     | 11.0                  | 4.7                  |                        |             |
|        | CV %                            | 12.0    | 11.8     | 10.9    | 14.0       |                     | 5.5                   | 7.0                  |                        |             |



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Number of bolls / sq.m. in Advanced Evaluation Trial of H X H hybrids - II

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|--------------------|-------------------|---------------------|--------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 82.3    | 84.3     | 36.6    | 183.7      | 92.1               | 158.3             | 78.2                | <b>102.2</b> |
| 2      | SRCH 369 BGII                   | 93.0    | 101.7    | 40.7    | 179.7      | 76.4               | 166.3             | 73.4                | <b>104.5</b> |
| 3      | BIO 6720 BGII                   | 95.0    | 90.0     | 45.6    | 170.3      | 90.5               | 187.3             | 96.2                | <b>110.7</b> |
| 4      | DACH 85S85 BGII                 | 83.3    | 78.0     | 35.8    | 183.7      | 96.2               | 148.3             | 91.8                | <b>102.4</b> |
| 5      | ARCH 771 BGII                   | 92.3    | 92.7     | 39.3    | 192.0      | 90.7               | 147.7             | 93.6                | <b>106.9</b> |
| 6      | C 9340 BGII                     | 87.7    | 86.3     | 40.7    | 195.0      | 86.1               | 159.0             | 58.2                | <b>101.9</b> |
| 7      | RCH 1060 BGII                   | 90.0    | 92.7     | 38.2    | 196.3      | 86.5               | 160.3             | 74.3                | <b>105.5</b> |
| 8      | KCH 9227 BGII                   | 66.7    | 114.0    | 38.9    | 194.0      | 105.7              | 201.3             | 78.0                | <b>114.1</b> |
| 9      | ARCH 781 BGII                   | 83.7    | 79.0     | 40.3    | 188.0      | 102.0              | 135.0             | 90.1                | <b>102.6</b> |
| 10     | RCH 1039 BGII                   | 91.0    | 92.0     | 39.5    | 186.7      | 78.8               | 208.3             | 80.9                | <b>111.0</b> |
| 11     | CORE 101 BGII                   | 84.3    | 85.7     | 40.3    | 182.3      | 81.4               | 139.7             | 98.9                | <b>101.8</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 85.3    | 86.0     | 40.7    | 167.3      | 79.4               | 156.7             | 81.1                | <b>99.5</b>  |
| 13     | KCH 9226 BGII                   | 97.0    | 98.3     | 41.7    | 190.0      | 111.7              | 173.3             | 74.4                | <b>112.3</b> |
|        | CD @ 5%                         | 11.9    | 15.5     | 7.3     | 16.9       | 11.0               | 24.2              |                     |              |
|        | CV %                            | 8.1     | 10.1     | 10.9    | 5.7        | 16.8               | 8.7               |                     |              |

## Lint Index (g) in Advanced Evaluation Trial of H X H hybrids - II

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|------------------|--------------------|-------------------|---------------------|------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 7.2     | 6.0      | 8.5     | 7.8        | 5.0              | 6.1                | 7.3               | 5.1                 | <b>6.6</b> |
| 2      | SRCH 369 BGII                   | 5.3     | 5.2      | 6.3     | 6.8        | 5.1              | 4.9                | 6.5               | 5.1                 | <b>5.7</b> |
| 3      | BIO 6720 BGII                   | 6.3     | 5.5      | 6.3     | 6.7        | 4.8              | 5.2                | 6.3               | 6.1                 | <b>5.9</b> |
| 4      | DACH 85S85 BGII                 | 6.1     | 5.6      | 5.6     | 7.3        | 4.4              | 5.5                | 6.8               | 4.9                 | <b>5.8</b> |
| 5      | ARCH 771 BGII                   | 6.9     | 5.7      | 6.8     | 7.9        | 6.1              | 5.2                | 7.3               | 5.3                 | <b>6.4</b> |
| 6      | C 9340 BGII                     | 6.9     | 5.0      | 6.1     | 7.2        | 4.7              | 4.1                | 6.0               | 5.2                 | <b>5.7</b> |
| 7      | RCH 1060 BGII                   | 6.5     | 5.6      | 5.6     | 7.7        | 5.9              | 5.1                | 6.3               | 5.1                 | <b>6.0</b> |
| 8      | KCH 9227 BGII                   | 5.1     | 4.8      | 5.6     | 6.1        | 5.2              | 5.3                | 5.7               | 5.0                 | <b>5.4</b> |
| 9      | ARCH 781 BGII                   | 4.5     | 5.3      | 5.8     | 6.8        | 6.3              | 4.3                | 6.2               | 5.5                 | <b>5.6</b> |
| 10     | RCH 1039 BGII                   | 7.5     | 5.7      | 5.9     | 7.2        | 5.3              | 5.2                | 7.2               | 5.6                 | <b>6.2</b> |
| 11     | CORE 101 BGII                   | 6.7     | 4.7      | 6.1     | 5.9        | 4.4              | 4.4                | 7.2               | 6.1                 | <b>5.7</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 4.8     | 4.7      | 7.8     | 7.7        | 5.2              | 4.5                | 6.3               | 5.2                 | <b>5.8</b> |
| 13     | KCH 9226 BGII                   | 5.3     | 4.6      | 5.5     | 5.7        | 4.7              | 5.8                | 5.5               | 5.4                 | <b>5.3</b> |
|        | CD @ 5%                         | 0.5     | 0.6      |         | 0.8        |                  | 4.1                | 0.8               |                     |            |
|        | CV %                            | 5.6     | 7.3      |         | 7.2        |                  | 0.4                | 7.7               |                     |            |

## Seed Index (g) in Advanced Evaluation Trial of H X H hybrids - II

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur<br>(Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 10.1    | 11.1     | 13.5    | 12.1       | 8.8                 | 11.0                  | 13.0                 | 9.3                    | <b>11.1</b> |
| 2      | SRCH 369 BGII                   | 10.0    | 11.5     | 12.4    | 11.5       | 9.7                 | 10.3                  | 12.2                 | 9.3                    | <b>10.9</b> |
| 3      | BIO 6720 BGII                   | 9.7     | 11.9     | 12.2    | 11.1       | 8.9                 | 10.3                  | 12.8                 | 11.1                   | <b>11.0</b> |
| 4      | DACH 85S85 BGII                 | 10.9    | 11.3     | 12.8    | 11.5       | 7.9                 | 11.0                  | 12.8                 | 9.9                    | <b>11.0</b> |
| 5      | ARCH 771 BGII                   | 9.8     | 11.2     | 12.3    | 12.4       | 9.8                 | 10.3                  | 12.7                 | 9.1                    | <b>11.0</b> |
| 6      | C 9340 BGII                     | 10.1    | 11.2     | 12.7    | 11.8       | 8.6                 | 9.0                   | 12.0                 | 9.4                    | <b>10.6</b> |
| 7      | RCH 1060 BGII                   | 9.2     | 10.8     | 11.3    | 12.2       | 9.4                 | 10.0                  | 12.0                 | 10.4                   | <b>10.7</b> |
| 8      | KCH 9227 BGII                   | 9.2     | 10.1     | 10.8    | 10.7       | 9.1                 | 9.3                   | 11.0                 | 10.7                   | <b>10.1</b> |
| 9      | ARCH 781 BGII                   | 11.1    | 12.2     | 13.0    | 11.6       | 11.4                | 10.0                  | 12.8                 | 10.3                   | <b>11.6</b> |
| 10     | RCH 1039 BGII                   | 9.5     | 10.5     | 11.4    | 11.2       | 8.9                 | 9.3                   | 11.5                 | 10.3                   | <b>10.3</b> |
| 11     | CORE 101 BGII                   | 9.3     | 10.6     | 12.1    | 11.0       | 8.2                 | 9.0                   | 13.3                 | 10.9                   | <b>10.6</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 10.5    | 12.4     | 15.9    | 13.5       | 10.4                | 11.0                  | 14.0                 | 8.7                    | <b>12.1</b> |
| 13     | KCH 9226 BGII                   | 9.1     | 9.9      | 11.1    | 9.9        | 8.3                 | 10.0                  | 10.7                 | 9.5                    | <b>9.8</b>  |
|        | CD @ 5%                         | 0.7     | NS       |         | 1.2        |                     | 3.3                   | 2.0                  |                        |             |
|        | CV %                            | 4.5     | 8.3      |         | 6.2        |                     | 0.6                   | 9.5                  |                        |             |

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**Ginning outturn (%) in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|------------------|--------------------|-------------------|---------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 39.0    | 35.0     | 38.7    | 39.2       | 36.2             | 35.8               | 36.2              | 36.3                | <b>37.1</b> |
| 2      | SRCH 369 BGII                   | 33.3    | 31.1     | 33.9    | 37.3       | 34.6             | 32.0               | 34.8              | 35.9                | <b>34.1</b> |
| 3      | BIO 6720 BGII                   | 38.0    | 31.5     | 34.1    | 37.6       | 35.1             | 33.5               | 33.1              | 36.0                | <b>34.9</b> |
| 4      | DACH 85S85 BGII                 | 34.2    | 33.1     | 30.3    | 38.9       | 36.0             | 33.5               | 32.8              | 36.5                | <b>34.4</b> |
| 5      | ARCH 771 BGII                   | 39.2    | 33.9     | 35.7    | 39.0       | 38.4             | 33.4               | 36.6              | 35.0                | <b>36.4</b> |
| 6      | C 9340 BGII                     | 38.6    | 30.7     | 32.3    | 37.8       | 35.0             | 31.4               | 33.3              | 34.8                | <b>34.2</b> |
| 7      | RCH 1060 BGII                   | 39.3    | 34.1     | 33.1    | 38.5       | 38.6             | 33.7               | 34.6              | 35.0                | <b>35.9</b> |
| 8      | KCH 9227 BGII                   | 35.5    | 32.1     | 33.9    | 36.2       | 36.4             | 36.3               | 33.7              | 36.3                | <b>35.1</b> |
| 9      | ARCH 781 BGII                   | 29.0    | 30.2     | 31.1    | 36.9       | 35.7             | 30.1               | 31.8              | 35.0                | <b>32.5</b> |
| 10     | RCH 1039 BGII                   | 41.5    | 35.0     | 34.2    | 39.4       | 37.4             | 35.9               | 38.1              | 36.2                | <b>37.2</b> |
| 11     | CORE 101 BGII                   | 39.7    | 30.5     | 33.4    | 35.1       | 35.0             | 33.0               | 33.7              | 36.1                | <b>34.6</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 31.3    | 27.7     | 33.0    | 36.2       | 33.3             | 29.0               | 31.3              | 35.2                | <b>32.1</b> |
| 13     | KCH 9226 BGII                   | 35.2    | 31.9     | 33.2    | 36.7       | 36.1             | 36.7               | 34.1              | 35.7                | <b>35.0</b> |
|        | CD @ 5%                         | 2.7     | 2.1      |         | 2.9        |                  | 3.3                | 2.7               |                     |             |
|        | CV %                            | 4.4     | 3.9      |         | 4.9        |                  | 1.9                | 4.8               |                     |             |

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**Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur<br>(Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 26.5    | 25.9     | 29.3    | 26.7       | 25.5                | 28.6                  | 27.6                 | 27.0                   | <b>27.1</b> |
| 2      | SRCH 369 BGII                   | 30.3    | 30.0     | 32.9    | 32.7       | 28.8                | 30.3                  | 32.0                 | 30.9                   | <b>31.0</b> |
| 3      | BIO 6720 BGII                   | 27.9    | 28.0     | 29.5    | 27.5       | 25.8                | 27.8                  | 28.3                 | 28.0                   | <b>27.9</b> |
| 4      | DACH 85S85 BGII                 | 26.6    | 30.4     | 33.0    | 29.7       | 28.6                | 30.3                  | 30.4                 | 30.4                   | <b>29.9</b> |
| 5      | ARCH 771 BGII                   | 29.7    | 28.2     | 30.2    | 28.6       | 28.5                | 27.9                  | 29.4                 | 27.5                   | <b>28.8</b> |
| 6      | C 9340 BGII                     | 27.5    | 28.2     | 28.6    | 27.7       | 25.5                | 26.3                  | 28.8                 | 27.5                   | <b>27.5</b> |
| 7      | RCH 1060 BGII                   | 26.4    | 27.1     | 28.9    | 29.0       | 26.4                | 26.5                  | 26.8                 | 28.9                   | <b>27.5</b> |
| 8      | KCH 9227 BGII                   | 26.0    | 27.3     | 28.6    | 27.3       | 27.2                | 25.5                  | 27.0                 | 26.8                   | <b>27.0</b> |
| 9      | ARCH 781 BGII                   | 27.9    | 30.0     | 31.3    | 30.0       | 27.8                | 28.1                  | 29.9                 | 30.2                   | <b>29.4</b> |
| 10     | RCH 1039 BGII                   | 26.2    | 27.0     | 28.7    | 27.4       | 25.2                | 27.4                  | 28.5                 | 27.9                   | <b>27.3</b> |
| 11     | CORE 101 BGII                   | 28.8    | 29.4     | 31.5    | 29.6       | 26.5                | 29.0                  | 29.9                 | 29.5                   | <b>29.3</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 30.9    | 30.1     | 33.7    | 31.5       | 28.1                | 30.8                  | 30.7                 | 31.9                   | <b>31.0</b> |
| 13     | KCH 9226 BGII                   | 27.3    | 27.1     | 28.4    | 26.2       | 27.8                | 27.2                  | 29.2                 | 28.1                   | <b>27.7</b> |

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**Uniformity index under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|------------------|--------------------|-------------------|---------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 82.0    | 83.0     | 86.0    | 85.0       | 82.8             | 86.0               | 84.0              | 85.0                | <b>84.2</b> |
| 2      | SRCH 369 BGII                   | 84.0    | 82.0     | 85.0    | 85.0       | 82.3             | 84.0               | 85.0              | 85.0                | <b>84.0</b> |
| 3      | BIO 6720 BGII                   | 83.0    | 83.0     | 85.0    | 84.0       | 83.4             | 84.0               | 83.0              | 85.0                | <b>83.8</b> |
| 4      | DACH 85S85 BGII                 | 82.0    | 83.0     | 86.0    | 85.0       | 83.1             | 86.0               | 83.0              | 85.0                | <b>84.1</b> |
| 5      | ARCH 771 BGII                   | 84.0    | 81.0     | 85.0    | 84.0       | 82.5             | 84.0               | 85.0              | 84.0                | <b>83.7</b> |
| 6      | C 9340 BGII                     | 83.0    | 85.0     | 86.0    | 85.0       | 82.2             | 84.0               | 86.0              | 86.0                | <b>84.7</b> |
| 7      | RCH 1060 BGII                   | 83.0    | 83.0     | 84.0    | 85.0       | 83.0             | 85.0               | 84.0              | 86.0                | <b>84.1</b> |
| 8      | KCH 9227 BGII                   | 83.0    | 83.0     | 86.0    | 84.0       | 83.1             | 84.0               | 84.0              | 86.0                | <b>84.1</b> |
| 9      | ARCH 781 BGII                   | 83.0    | 84.0     | 86.0    | 85.0       | 82.6             | 85.0               | 86.0              | 86.0                | <b>84.7</b> |
| 10     | RCH 1039 BGII                   | 83.0    | 83.0     | 85.0    | 81.0       | 82.3             | 84.0               | 84.0              | 86.0                | <b>83.5</b> |
| 11     | CORE 101 BGII                   | 83.0    | 83.0     | 86.0    | 85.0       | 81.9             | 85.0               | 85.0              | 86.0                | <b>84.4</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 83.0    | 83.0     | 86.0    | 84.0       | 82.4             | 84.0               | 84.0              | 85.0                | <b>83.9</b> |
| 13     | KCH 9226 BGII                   | 85.0    | 84.0     | 87.0    | 83.0       | 82.9             | 85.0               | 86.0              | 86.0                | <b>84.9</b> |

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**Micronaire under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Hyderabad<br>(Kaveri) | Mokhila<br>(Bioseed) | Guntur (Core<br>seeds) | Mean       |
|--------|---------------------------------|---------|----------|---------|------------|---------------------|-----------------------|----------------------|------------------------|------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 4.7     | 4.8      | 5.1     | 5.2        | 4.9                 | 4.2                   | 4.4                  | 4.6                    | <b>4.7</b> |
| 2      | SRCH 369 BGII                   | 4.1     | 4.2      | 4.2     | 4.6        | 4.5                 | 3.6                   | 3.3                  | 4.0                    | <b>4.1</b> |
| 3      | BIO 6720 BGII                   | 4.4     | 4.5      | 5.0     | 5.1        | 4.7                 | 4.3                   | 3.9                  | 4.1                    | <b>4.5</b> |
| 4      | DACH 85S85 BGII                 | 4.4     | 4.4      | 4.9     | 5.2        | 4.4                 | 4.3                   | 3.9                  | 4.6                    | <b>4.5</b> |
| 5      | ARCH 771 BGII                   | 4.4     | 4.5      | 4.7     | 4.4        | 4.9                 | 3.8                   | 3.7                  | 4.2                    | <b>4.3</b> |
| 6      | C 9340 BGII                     | 4.5     | 4.5      | 5.1     | 4.6        | 4.7                 | 3.8                   | 3.6                  | 3.9                    | <b>4.3</b> |
| 7      | RCH 1060 BGII                   | 4.7     | 4.6      | 5.0     | 5.1        | 5.0                 | 4.1                   | 3.9                  | 3.6                    | <b>4.5</b> |
| 8      | KCH 9227 BGII                   | 4.6     | 4.6      | 4.4     | 4.5        | 5.0                 | 3.9                   | 3.7                  | 4.3                    | <b>4.4</b> |
| 9      | ARCH 781 BGII                   | 4.4     | 4.7      | 5.0     | 4.5        | 4.8                 | 3.7                   | 3.9                  | 3.4                    | <b>4.3</b> |
| 10     | RCH 1039 BGII                   | 4.8     | 4.9      | 5.4     | 5.7        | 5.3                 | 4.4                   | 4.3                  | 4.4                    | <b>4.9</b> |
| 11     | CORE 101 BGII                   | 4.2     | 4.5      | 4.6     | 4.4        | 4.3                 | 3.8                   | 3.7                  | 4.0                    | <b>4.2</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 4.1     | 4.2      | 4.3     | 4.2        | 4.6                 | 3.2                   | 3.2                  | 4.2                    | <b>4.0</b> |
| 13     | KCH 9226 BGII                   | 4.6     | 5.0      | 4.6     | 5.0        | 4.7                 | 4.2                   | 4.0                  | 4.3                    | <b>4.6</b> |

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**Tenacity under HVI Mode in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|------------------|--------------------|-------------------|---------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 28.3    | 27.5     | 31.0    | 27.8       | 28.9             | 27.7               | 27.8              | 28.9                | <b>28.5</b> |
| 2      | SRCH 369 BGII                   | 30.8    | 30.8     | 30.3    | 29.9       | 30.5             | 29.2               | 30.3              | 32.1                | <b>30.5</b> |
| 3      | BIO 6720 BGII                   | 29.4    | 29.8     | 28.1    | 28.8       | 29.7             | 26.1               | 30.6              | 30.3                | <b>29.1</b> |
| 4      | DACH 85S85 BGII                 | 28.4    | 31.8     | 31.0    | 29.9       | 30.6             | 29.0               | 28.0              | 30.3                | <b>29.9</b> |
| 5      | ARCH 771 BGII                   | 30.9    | 28.9     | 30.1    | 29.0       | 30.4             | 26.9               | 29.2              | 29.9                | <b>29.4</b> |
| 6      | C 9340 BGII                     | 29.7    | 30.6     | 30.5    | 29.6       | 31.4             | 27.0               | 30.9              | 28.6                | <b>29.8</b> |
| 7      | RCH 1060 BGII                   | 28.7    | 28.5     | 28.6    | 30.3       | 30.2             | 25.0               | 26.2              | 29.9                | <b>28.4</b> |
| 8      | KCH 9227 BGII                   | 28.0    | 29.8     | 32.2    | 28.3       | 30.9             | 27.2               | 29.0              | 26.1                | <b>28.9</b> |
| 9      | ARCH 781 BGII                   | 30.3    | 31.1     | 31.6    | 31.0       | 30.9             | 28.6               | 32.9              | 32.0                | <b>31.1</b> |
| 10     | RCH 1039 BGII                   | 28.1    | 28.8     | 31.2    | 28.6       | 30.4             | 27.8               | 29.8              | 29.8                | <b>29.3</b> |
| 11     | CORE 101 BGII                   | 30.7    | 30.1     | 31.1    | 29.1       | 30.0             | 27.9               | 29.3              | 33.6                | <b>30.2</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 32.7    | 32.5     | 29.4    | 30.9       | 30.9             | 29.0               | 29.8              | 33.5                | <b>31.1</b> |
| 13     | KCH 9226 BGII                   | 27.7    | 29.0     | 29.7    | 27.7       | 30.5             | 28.2               | 29.3              | 30.0                | <b>29.0</b> |



## Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - II

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean         |
|--------|---------------------------------|---------|----------|---------|------------|------------------|--------------------|-------------------|---------------------|--------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 16.8    | 15.37    | 10.38   | 8.09       | 7.04             | 20.66              | 20.92             | 19.71               | <b>14.87</b> |
| 2      | SRCH 369 BGII                   | 24.7    | 24.50    | 12.59   | 16.46      | 9.79             | 26.08              | 25.70             | 17.82               | <b>19.71</b> |
| 3      | BIO 6720 BGII                   | 23.8    | 13.19    | 9.90    | 15.81      | 15.33            | 24.67              | 21.19             | 25.84               | <b>18.72</b> |
| 4      | DACH 85S85 BGII                 | 17.8    | 11.59    | 6.43    | 13.77      | 16.18            | 27.53              | 26.06             | 25.16               | <b>18.07</b> |
| 5      | ARCH 771 BGII                   | 26.4    | 26.63    | 9.22    | 15.86      | 15.92            | 25.13              | 29.81             | 29.90               | <b>22.36</b> |
| 6      | C 9340 BGII                     | 18.3    | 15.13    | 6.97    | 14.14      | 8.63             | 28.31              | 21.10             | 20.07               | <b>16.58</b> |
| 7      | RCH 1060 BGII                   | 23.2    | 23.70    | 10.68   | 20.97      | 12.00            | 25.34              | 27.83             | 18.05               | <b>20.22</b> |
| 8      | KCH 9227 BGII                   | 20.8    | 26.15    | 12.72   | 15.26      | 13.77            | 29.52              | 33.41             | 19.75               | <b>21.42</b> |
| 9      | ARCH 781 BGII                   | 17.0    | 14.28    | 7.86    | 13.57      | 16.21            | 28.03              | 15.80             | 24.22               | <b>17.12</b> |
| 10     | RCH 1039 BGII                   | 26.0    | 24.93    | 11.02   | 19.70      | 10.84            | 16.70              | 30.61             | 20.52               | <b>20.04</b> |
| 11     | CORE 101 BGII                   | 18.7    | 14.59    | 11.56   | 12.25      | 15.32            | 19.92              | 21.21             | 28.19               | <b>17.72</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 16.4    | 14.94    | 12.65   | 17.11      | 9.05             | 18.36              | 17.80             | 20.68               | <b>15.87</b> |
| 13     | KCH 9226 BGII                   | 25.6    | 24.80    | 12.31   | 14.49      | 15.53            | 31.56              | 30.96             | 18.06               | <b>21.66</b> |
|        | CD @ 5%                         | 3.7     | 4.36     | 2.42    | 4.60       |                  | 8.00               | 3.97              |                     |              |
|        | CV %                            | 10.5    | 13.48    | 13.90   | 18.95      |                  | 3.34               | 9.60              |                     |              |

## Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids - II

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean        |
|--------|---------------------------------|---------|----------|---------|------------|------------------|--------------------|-------------------|---------------------|-------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 2.66    | 13.02    | 11.46   | 4.81       | 2.24             | 9.82               | 3.38              | 7.07                | <b>6.81</b> |
| 2      | SRCH 369 BGII                   | 3.36    | 10.26    | 13.39   | 6.01       | 3.29             | 6.21               | 1.90              | 7.05                | <b>6.43</b> |
| 3      | BIO 6720 BGII                   | 4.31    | 16.33    | 14.50   | 4.88       | 3.62             | 8.43               | 2.04              | 7.14                | <b>7.66</b> |
| 4      | DACH 85S85 BGII                 | 3.93    | 13.98    | 10.53   | 6.44       | 3.43             | 11.24              | 3.77              | 7.15                | <b>7.56</b> |
| 5      | ARCH 771 BGII                   | 2.56    | 8.69     | 10.63   | 6.79       | 2.94             | 8.43               | 2.90              | 7.35                | <b>6.29</b> |
| 6      | C 9340 BGII                     | 4.73    | 14.48    | 15.33   | 5.96       | 2.39             | 3.15               | 3.27              | 7.02                | <b>7.04</b> |
| 7      | RCH 1060 BGII                   | 3.81    | 10.59    | 9.80    | 2.90       | 1.88             | 8.15               | 3.21              | 7.00                | <b>5.92</b> |
| 8      | KCH 9227 BGII                   | 5.83    | 11.35    | 12.93   | 7.33       | 4.46             | 11.95              | 2.56              | 7.11                | <b>7.94</b> |
| 9      | ARCH 781 BGII                   | 3.69    | 11.09    | 10.33   | 6.22       | 3.51             | 7.32               | 1.60              | 7.06                | <b>6.35</b> |
| 10     | RCH 1039 BGII                   | 2.89    | 8.04     | 13.40   | 5.21       | 3.21             | 9.82               | 3.04              | 6.99                | <b>6.58</b> |
| 11     | CORE 101 BGII                   | 5.06    | 17.48    | 12.91   | 5.57       | 2.60             | 11.30              | 2.82              | 7.22                | <b>8.12</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 3.88    | 11.30    | 12.20   | 5.80       | 2.82             | 7.95               | 2.84              | 7.02                | <b>6.73</b> |
| 13     | KCH 9226 BGII                   | 4.03    | 17.35    | 13.32   | 4.97       | 1.80             | 9.30               | 2.58              | 7.00                | <b>7.54</b> |
|        | CD @ 5%                         | 1.06    | 3.17     | 2.51    | 1.82       |                  | 16.45              |                   |                     |             |
|        | CV %                            | 16.00   | 14.90    | 12.10   | 20.37      |                  | 2.41               |                   |                     |             |

**Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of H X H hybrids - II**

| S. No. | Entries                         | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Hyderabad (Kaveri) | Mokhila (Bioseed) | Guntur (Core seeds) | Mean         | Rank | % Inc over best check |
|--------|---------------------------------|---------|----------|---------|------------|------------------|--------------------|-------------------|---------------------|--------------|------|-----------------------|
| 1      | <b>SP7679 BGII (ZC 1)</b>       | 19.43   | 28.39    | 21.84   | 12.90      | 9.28             | 30.48              | 24.30             | 26.04               | <b>21.58</b> | 13   | -4.8                  |
| 2      | SRCH 369 BGII                   | 28.10   | 34.76    | 25.97   | 22.47      | 13.08            | 32.28              | 27.60             | 24.86               | <b>26.14</b> | 7    | 15.4                  |
| 3      | BIO 6720 BGII                   | 28.14   | 29.52    | 24.40   | 20.69      | 18.95            | 33.10              | 23.22             | 32.64               | <b>26.33</b> | 5    | 16.2                  |
| 4      | DACH 85S85 BGII                 | 21.73   | 25.57    | 16.96   | 20.21      | 19.61            | 38.77              | 29.83             | 31.59               | <b>25.53</b> | 9    | 12.7                  |
| 5      | ARCH 771 BGII                   | 28.98   | 35.31    | 19.85   | 22.65      | 18.87            | 33.56              | 32.71             | 37.40               | <b>28.67</b> | 3    | 26.5                  |
| 6      | C 9340 BGII                     | 23.03   | 29.61    | 22.30   | 20.10      | 11.02            | 31.46              | 24.37             | 28.11               | <b>23.75</b> | 10   | 4.8                   |
| 7      | RCH 1060 BGII                   | 27.01   | 34.30    | 20.48   | 23.87      | 13.88            | 33.49              | 31.04             | 25.40               | <b>26.18</b> | 6    | 15.6                  |
| 8      | KCH 9227 BGII                   | 28.61   | 37.50    | 25.65   | 22.59      | 18.23            | 41.46              | 35.97             | 27.99               | <b>29.75</b> | 1    | 31.3                  |
| 9      | ARCH 781 BGII                   | 20.66   | 25.37    | 18.19   | 19.79      | 19.72            | 35.35              | 17.39             | 31.01               | <b>23.44</b> | 11   | 3.4                   |
| 10     | RCH 1039 BGII                   | 28.93   | 32.96    | 24.41   | 24.91      | 14.05            | 26.52              | 33.65             | 29.28               | <b>26.84</b> | 4    | 18.4                  |
| 11     | CORE 101 BGII                   | 23.72   | 32.07    | 24.48   | 17.82      | 17.92            | 31.22              | 24.03             | 35.63               | <b>25.86</b> | 8    | 14.1                  |
| 12     | <b>Daftari 615 BG II (ZC 2)</b> | 20.24   | 26.24    | 24.86   | 22.91      | 11.87            | 26.31              | 20.63             | 28.23               | <b>22.66</b> | 12   | 0.0                   |
| 13     | KCH 9226 BGII                   | 29.61   | 42.15    | 25.63   | 19.46      | 17.32            | 40.85              | 33.53             | 25.74               | <b>29.29</b> | 2    | 29.2                  |
|        | CD @ 5%                         | 3.60    | 3.81     | 2.58    | 5.14       | 3.30             | 6.41               | 3.97              |                     |              |      |                       |
|        | CV %                            | 8.40    | 7.10     | 6.75    | 15.44      | 12.90            | 3.62               | 8.65              |                     |              |      |                       |

## Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced H X H trial in South Zone under Protected Conditions – Aphid**

| Name of Entry            | Aphid (Average of 3 leaves/plant) |      |    |      |       |             | Remark      |
|--------------------------|-----------------------------------|------|----|------|-------|-------------|-------------|
|                          | NA                                | DH   | PE | AD   | MU    | Mean        |             |
| SP7679 BGII (ZC 1)       | -                                 | 1.77 | -  | 0.45 | 2.69  | <b>1.64</b> | <b>BETL</b> |
| SRCH 369 BGII            | -                                 | 3.49 | -  | 0.56 | 2.76  | <b>2.27</b> | <b>BETL</b> |
| BIO 6720 BGII            | -                                 | 1.62 | -  | 0.46 | 8.48  | <b>3.52</b> | <b>BETL</b> |
| DACH 85S85 BGII          | -                                 | 1.84 | -  | 0.32 | 1.24  | <b>1.13</b> | <b>BETL</b> |
| ARCH 771 BGII            | -                                 | 2.13 | -  | 0.46 | 5.38  | <b>2.66</b> | <b>BETL</b> |
| C 9340 BGII              | -                                 | 2.53 | -  | 0.50 | 9.51  | <b>4.18</b> | <b>BETL</b> |
| RCH 1060 BGII            | -                                 | 1.50 | -  | 0.45 | 0.48  | <b>0.81</b> | <b>BETL</b> |
| KCH 9227 BGII            | -                                 | 1.97 | -  | 0.40 | 1.31  | <b>1.23</b> | <b>BETL</b> |
| ARCH 781 BGII            | -                                 | 3.22 | -  | 0.39 | 5.02  | <b>2.88</b> | <b>BETL</b> |
| RCH 1039 BGII            | -                                 | 3.27 | -  | 0.37 | 2.96  | <b>2.20</b> | <b>BETL</b> |
| CORE 101 BGII            | -                                 | 1.03 | -  | 0.46 | 3.72  | <b>1.74</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                 | 1.88 | -  | 0.45 | 10.34 | <b>4.22</b> | <b>BETL</b> |
| KCH 9226 BGII            | -                                 | 1.84 | -  | 0.40 | 6.76  | <b>3.00</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry            | Leafhopper (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|----------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                     | DH   | PE   | AD   | MU   | Mean        |             |
| SP7679 BGII (ZC 1)       | -                                      | 0.33 | 5.67 | 0.34 | 1.02 | <b>1.84</b> | <b>BETL</b> |
| SRCH 369 BGII            | -                                      | 0.54 | 7.00 | 0.21 | 1.63 | <b>2.35</b> | <b>BETL</b> |
| BIO 6720 BGII            | -                                      | 0.44 | 5.33 | 0.26 | 1.53 | <b>1.89</b> | <b>BETL</b> |
| DACH 85S85 BGII          | -                                      | 0.53 | 6.00 | 0.22 | 2.34 | <b>2.27</b> | <b>BETL</b> |
| ARCH 771 BGII            | -                                      | 0.33 | 6.67 | 0.31 | 0.61 | <b>1.98</b> | <b>BETL</b> |
| C 9340 BGII              | -                                      | 0.35 | 6.67 | 0.23 | 1.42 | <b>2.17</b> | <b>BETL</b> |
| RCH 1060 BGII            | -                                      | 0.28 | 5.33 | 0.28 | 0.82 | <b>1.68</b> | <b>BETL</b> |
| KCH 9227 BGII            | -                                      | 0.45 | 4.00 | 0.23 | 0.82 | <b>1.37</b> | <b>BETL</b> |
| ARCH 781 BGII            | -                                      | 0.28 | 2.00 | 0.17 | 0.71 | <b>0.79</b> | <b>BETL</b> |
| RCH 1039 BGII            | -                                      | 0.45 | 6.33 | 0.23 | 0.41 | <b>1.86</b> | <b>BETL</b> |
| CORE 101 BGII            | -                                      | 0.64 | 7.33 | 0.20 | 1.73 | <b>2.48</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                      | 0.56 | 4.67 | 0.25 | 1.42 | <b>1.73</b> | <b>BETL</b> |
| KCH 9226 BGII            | -                                      | 0.44 | 5.33 | 0.29 | 0.91 | <b>1.74</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – JIG**

| Name of Entry            | JIG/plant |    |    |    |    |      | Remark |
|--------------------------|-----------|----|----|----|----|------|--------|
|                          | NA        | DH | PE | AD | MU | Mean |        |
| SP7679 BGII (ZC 1)       | -         | I  | -  | -  | -  | I    |        |
| SRCH 369 BGII            | -         | I  | -  | -  | -  | I    |        |
| BIO 6720 BGII            | -         | I  | -  | -  | -  | I    |        |
| DACH 85S85 BGII          | -         | I  | -  | -  | -  | I    |        |
| ARCH 771 BGII            | -         | I  | -  | -  | -  | I    |        |
| C 9340 BGII              | -         | I  | -  | -  | -  | I    |        |
| RCH 1060 BGII            | -         | I  | -  | -  | -  | I    |        |
| KCH 9227 BGII            | -         | I  | -  | -  | -  | I    |        |
| ARCH 781 BGII            | -         | I  | -  | -  | -  | I    |        |
| RCH 1039 BGII            | -         | I  | -  | -  | -  | I    |        |
| CORE 101 BGII            | -         | I  | -  | -  | -  | I    |        |
| Daftari 615 BG II (ZC 2) | -         | I  | -  | -  | -  | I    |        |
| KCH 9226 BGII            | -         | I  | -  | -  | -  | I    |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Thrips**

| Name of Entry            | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                 | DH   | PE   | AD   | MU   | Mean        |             |
| SP7679 BGII (ZC 1)       | -                                  | 3.61 | 1.00 | 0.67 | 2.73 | <b>2.00</b> | <b>BETL</b> |
| SRCH 369 BGII            | -                                  | 3.54 | 0.00 | 0.60 | 0.87 | <b>1.25</b> | <b>BETL</b> |
| BIO 6720 BGII            | -                                  | 3.21 | 0.67 | 0.60 | 5.61 | <b>2.52</b> | <b>BETL</b> |
| DACH 85S85 BGII          | -                                  | 3.41 | 0.67 | 0.57 | 2.88 | <b>1.88</b> | <b>BETL</b> |
| ARCH 771 BGII            | -                                  | 3.48 | 0.00 | 0.47 | 2.10 | <b>1.51</b> | <b>BETL</b> |
| C 9340 BGII              | -                                  | 3.95 | 0.00 | 0.73 | 5.29 | <b>2.49</b> | <b>BETL</b> |
| RCH 1060 BGII            | -                                  | 3.54 | 0.00 | 0.57 | 0.34 | <b>1.11</b> | <b>BETL</b> |
| KCH 9227 BGII            | -                                  | 2.27 | 0.00 | 0.37 | 2.91 | <b>1.39</b> | <b>BETL</b> |
| ARCH 781 BGII            | -                                  | 3.27 | 0.67 | 0.47 | 5.06 | <b>2.37</b> | <b>BETL</b> |
| RCH 1039 BGII            | -                                  | 3.34 | 0.00 | 0.30 | 0.93 | <b>1.14</b> | <b>BETL</b> |
| CORE 101 BGII            | -                                  | 4.48 | 0.00 | 0.67 | 3.68 | <b>2.21</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                  | 2.87 | 0.00 | 0.67 | 1.85 | <b>1.35</b> | <b>BETL</b> |
| KCH 9226 BGII            | -                                  | 4.15 | 1.00 | 0.60 | 3.20 | <b>2.24</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry            | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|--------------------------|--------------------------------------|------|------|------|------|-------------|-------------|
|                          | NA                                   | DH   | PE   | AD   | MU   | Mean        |             |
| SP7679 BGII (ZC 1)       | -                                    | 0.07 | 0.00 | 0.40 | 0.78 | <b>0.31</b> | <b>BETL</b> |
| SRCH 369 BGII            | -                                    | 0.11 | 1.00 | 0.30 | 0.30 | <b>0.43</b> | <b>BETL</b> |
| BIO 6720 BGII            | -                                    | 0.18 | 0.00 | 0.23 | 0.52 | <b>0.23</b> | <b>BETL</b> |
| DACH 85S85 BGII          | -                                    | 0.00 | 1.33 | 0.33 | 0.33 | <b>0.50</b> | <b>BETL</b> |
| ARCH 771 BGII            | -                                    | 0.09 | 0.33 | 0.40 | 0.40 | <b>0.31</b> | <b>BETL</b> |
| C 9340 BGII              | -                                    | 0.00 | 0.67 | 0.30 | 0.41 | <b>0.34</b> | <b>BETL</b> |
| RCH 1060 BGII            | -                                    | 0.04 | 1.67 | 0.30 | 2.19 | <b>1.05</b> | <b>BETL</b> |
| KCH 9227 BGII            | -                                    | 0.09 | 0.33 | 0.23 | 0.59 | <b>0.31</b> | <b>BETL</b> |
| ARCH 781 BGII            | -                                    | 0.00 | 0.67 | 0.37 | 0.26 | <b>0.32</b> | <b>BETL</b> |
| RCH 1039 BGII            | -                                    | 0.13 | 0.67 | 0.20 | 0.74 | <b>0.44</b> | <b>BETL</b> |
| CORE 101 BGII            | -                                    | 0.00 | 0.67 | 0.23 | 0.45 | <b>0.34</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | -                                    | 0.00 | 1.00 | 0.30 | 0.48 | <b>0.45</b> | <b>BETL</b> |
| KCH 9226 BGII            | -                                    | 0.07 | 0.33 | 0.40 | 0.48 | <b>0.32</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry            | Natural Enemies (No./plant) |      |      |    |    |             | Remark |
|--------------------------|-----------------------------|------|------|----|----|-------------|--------|
|                          | NA                          | DH   | PE   | AD | MU | Mean        |        |
| SP7679 BGII (ZC 1)       | -                           | 1.37 | 0.00 | -  | -  | <b>0.68</b> |        |
| SRCH 369 BGII            | -                           | 1.35 | 0.00 | -  | -  | <b>0.67</b> |        |
| BIO 6720 BGII            | -                           | 1.23 | 0.00 | -  | -  | <b>0.62</b> |        |
| DACH 85S85 BGII          | -                           | 2.20 | 0.00 | -  | -  | <b>1.10</b> |        |
| ARCH 771 BGII            | -                           | 2.23 | 0.00 | -  | -  | <b>1.11</b> |        |
| C 9340 BGII              | -                           | 2.04 | 0.00 | -  | -  | <b>1.02</b> |        |
| RCH 1060 BGII            | -                           | 1.68 | 0.00 | -  | -  | <b>0.84</b> |        |
| KCH 9227 BGII            | -                           | 0.92 | 0.00 | -  | -  | <b>0.46</b> |        |
| ARCH 781 BGII            | -                           | 1.14 | 0.00 | -  | -  | <b>0.57</b> |        |
| RCH 1039 BGII            | -                           | 1.39 | 0.00 | -  | -  | <b>0.70</b> |        |
| CORE 101 BGII            | -                           | 1.89 | 0.00 | -  | -  | <b>0.94</b> |        |
| Daftari 615 BG II (ZC 2) | -                           | 1.46 | 0.00 | -  | -  | <b>0.73</b> |        |
| KCH 9226 BGII            | -                           | 1.89 | 0.00 | -  | -  | <b>0.94</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – *Helicoverpa armigera***

| Name of Entry            | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |    |      | Remark |
|--------------------------|---------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                          | DH   | PE   | AD   | MU | Mean |        |
| SP7679 BGII (ZC 1)       | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SRCH 369 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO 6720 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 85S85 BGII          | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 771 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C 9340 BGII              | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1060 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9227 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 781 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1039 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 101 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9226 BGII            | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry            | Spotted Bollworms (No. /5 plants) |      |      |      |    |      | Remark |
|--------------------------|-----------------------------------|------|------|------|----|------|--------|
|                          | NA                                | DH   | PE   | AD   | MU | Mean |        |
| SP7679 BGII (ZC 1)       | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SRCH 369 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO 6720 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 85S85 BGII          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 771 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C 9340 BGII              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1060 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9227 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 781 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1039 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 101 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9226 BGII            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry            | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |    |      | Remark |
|--------------------------|------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                       | DH   | PE   | AD   | MU | Mean |        |
| SP7679 BGII (ZC 1)       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SRCH 369 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO 6720 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 85S85 BGII          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 771 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C 9340 BGII              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1060 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9227 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 781 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1039 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 101 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9226 BGII            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Pink bollworm**

| Name of Entry            | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |      | Remark |
|--------------------------|---------------------------------------------------------|------|------|------|----|------|--------|
|                          | NA                                                      | DH   | PE   | AD#  | MU | Mean |        |
| SP7679 BGII (ZC 1)       | -                                                       | 0.83 | 1.68 | 1.20 | -  | 1.24 | AETL   |
| SRCH 369 BGII            | -                                                       | 1.00 | 2.35 | 2.53 | -  | 1.96 | AETL   |
| BIO 6720 BGII            | -                                                       | 0.83 | 0.85 | 2.00 | -  | 1.23 | AETL   |
| DACH 85S85 BGII          | -                                                       | 0.67 | 1.68 | 1.47 | -  | 1.27 | AETL   |
| ARCH 771 BGII            | -                                                       | 0.83 | 2.28 | 2.40 | -  | 1.84 | AETL   |
| C 9340 BGII              | -                                                       | 2.00 | 0.68 | 1.27 | -  | 1.32 | AETL   |
| RCH 1060 BGII            | -                                                       | 0.50 | 1.85 | 1.20 | -  | 1.18 | AETL   |
| KCH 9227 BGII            | -                                                       | 0.50 | 2.05 | 1.07 | -  | 1.21 | AETL   |
| ARCH 781 BGII            | -                                                       | 0.67 | 1.68 | 1.80 | -  | 1.38 | AETL   |
| RCH 1039 BGII            | -                                                       | 1.67 | 1.35 | 0.87 | -  | 1.30 | AETL   |
| CORE 101 BGII            | -                                                       | 1.00 | 1.08 | 0.93 | -  | 1.00 | AETL   |
| Daftari 615 BG II (ZC 2) | -                                                       | 1.50 | 1.08 | 0.47 | -  | 1.02 | AETL   |
| KCH 9226 BGII            | -                                                       | 2.00 | 1.18 | 0.53 | -  | 1.24 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations





**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry            | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |      | Remark |
|--------------------------|-----------------------------------------|------|----|------|----|------|--------|
|                          | NA                                      | DH   | PE | AD   | MU | Mean |        |
| SP7679 BGII (ZC 1)       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| SRCH 369 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| BIO 6720 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| DACH 85S85 BGII          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| ARCH 771 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| C 9340 BGII              | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1060 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9227 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| ARCH 781 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1039 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CORE 101 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9226 BGII            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry            | Green Boll damage (%) /10 bolls destructive sampling |       |    |       |    |       | Remark |
|--------------------------|------------------------------------------------------|-------|----|-------|----|-------|--------|
|                          | NA                                                   | DH    | PE | AD    | MU | Mean  |        |
| SP7679 BGII (ZC 1)       | -                                                    | 5.00  | -  | 22.67 | -  | 13.84 | AETL   |
| SRCH 369 BGII            | -                                                    | 8.33  | -  | 22.00 | -  | 15.17 | AETL   |
| BIO 6720 BGII            | -                                                    | 8.33  | -  | 20.00 | -  | 14.17 | AETL   |
| DACH 85S85 BGII          | -                                                    | 6.67  | -  | 20.00 | -  | 13.34 | AETL   |
| ARCH 771 BGII            | -                                                    | 6.67  | -  | 22.67 | -  | 14.67 | AETL   |
| C 9340 BGII              | -                                                    | 15.00 | -  | 23.33 | -  | 19.17 | AETL   |
| RCH 1060 BGII            | -                                                    | 6.67  | -  | 22.00 | -  | 14.34 | AETL   |
| KCH 9227 BGII            | -                                                    | 8.33  | -  | 28.00 | -  | 18.17 | AETL   |
| ARCH 781 BGII            | -                                                    | 10.00 | -  | 20.00 | -  | 15.00 | AETL   |
| RCH 1039 BGII            | -                                                    | 11.67 | -  | 13.33 | -  | 12.50 | AETL   |
| CORE 101 BGII            | -                                                    | 8.33  | -  | 14.00 | -  | 11.17 | AETL   |
| Daftari 615 BG II (ZC 2) | -                                                    | 10.00 | -  | 12.67 | -  | 11.34 | AETL   |
| KCH 9226 BGII            | -                                                    | 16.67 | -  | 12.67 | -  | 14.67 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry            | Open Boll Damage (%) |       |      |       |    |              | Remark |
|--------------------------|----------------------|-------|------|-------|----|--------------|--------|
|                          | NA                   | DH    | PE   | AD    | MU | Mean         |        |
| SP7679 BGII (ZC 1)       | -                    | 5.76  | 7.00 | 20.67 | -  | <b>11.14</b> |        |
| SRCH 369 BGII            | -                    | 8.95  | 6.00 | 33.89 | -  | <b>16.28</b> |        |
| BIO 6720 BGII            | -                    | 8.12  | 9.00 | 27.78 | -  | <b>14.97</b> |        |
| DACH 85S85 BGII          | -                    | 7.44  | 7.00 | 23.55 | -  | <b>12.66</b> |        |
| ARCH 771 BGII            | -                    | 5.43  | 8.00 | 28.44 | -  | <b>13.96</b> |        |
| C 9340 BGII              | -                    | 7.34  | 7.00 | 28.89 | -  | <b>14.41</b> |        |
| RCH 1060 BGII            | -                    | 4.13  | 5.00 | 24.44 | -  | <b>11.19</b> |        |
| KCH 9227 BGII            | -                    | 3.34  | 6.00 | 30.11 | -  | <b>13.15</b> |        |
| ARCH 781 BGII            | -                    | 7.68  | 4.00 | 23.67 | -  | <b>11.78</b> |        |
| RCH 1039 BGII            | -                    | 8.84  | 9.00 | 24.67 | -  | <b>14.17</b> |        |
| CORE 101 BGII            | -                    | 10.18 | 6.00 | 25.55 | -  | <b>13.91</b> |        |
| Daftari 615 BG II (ZC 2) | -                    | 8.21  | 7.00 | 21.67 | -  | <b>12.29</b> |        |
| KCH 9226 BGII            | -                    | 17.30 | 4.00 | 20.00 | -  | <b>13.77</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry            | Locule Damage (%) |       |      |       |    |             | Remark |
|--------------------------|-------------------|-------|------|-------|----|-------------|--------|
|                          | NA                | DH    | PE   | AD    | MU | Mean        |        |
| SP7679 BGII (ZC 1)       | -                 | 6.50  | 3.00 | 15.00 | -  | <b>8.17</b> |        |
| SRCH 369 BGII            | -                 | 5.83  | 2.00 | 14.00 | -  | <b>7.28</b> |        |
| BIO 6720 BGII            | -                 | 2.67  | 3.00 | 10.67 | -  | <b>5.45</b> |        |
| DACH 85S85 BGII          | -                 | 7.83  | 3.00 | 13.33 | -  | <b>8.05</b> |        |
| ARCH 771 BGII            | -                 | 3.22  | 3.00 | 14.00 | -  | <b>6.74</b> |        |
| C 9340 BGII              | -                 | 9.22  | 4.00 | 11.67 | -  | <b>8.30</b> |        |
| RCH 1060 BGII            | -                 | 5.89  | 2.00 | 14.00 | -  | <b>7.30</b> |        |
| KCH 9227 BGII            | -                 | 5.50  | 3.00 | 19.00 | -  | <b>9.17</b> |        |
| ARCH 781 BGII            | -                 | 5.11  | 2.00 | 14.00 | -  | <b>7.04</b> |        |
| RCH 1039 BGII            | -                 | 6.22  | 3.00 | 10.00 | -  | <b>6.41</b> |        |
| CORE 101 BGII            | -                 | 4.67  | 2.00 | 11.67 | -  | <b>6.11</b> |        |
| Daftari 615 BG II (ZC 2) | -                 | 5.39  | 3.00 | 10.00 | -  | <b>6.13</b> |        |
| KCH 9226 BGII            | -                 | 11.05 | 1.00 | 10.67 | -  | <b>7.57</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry            | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|--------------------------|------------------------------------|------|------|------|------|-------------|--------|
|                          | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| SP7679 BGII (ZC 1)       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SRCH 369 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| BIO 6720 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| DACH 85S85 BGII          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| ARCH 771 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| C 9340 BGII              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RCH 1060 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| KCH 9227 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| ARCH 781 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RCH 1039 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CORE 101 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Daftari 615 BG II (ZC 2) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| KCH 9226 BGII            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |

**NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole**



## Reaction to Diseases

**Table 13(a): Advanced Evaluation Trial- II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Protected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | UAS, Dharwad                                              |    |      |    |      |    |      |    |
|        |         |                          | ALS                                                       |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 6      | 56051   | SP7679 BGII (ZC 1)       | 23.0                                                      | R  | 10.5 | R  | 16.7 | R  | 17.4 | R  |
| 10     | 56052   | SRCH 369 BGII            | 23.5                                                      | R  | 10.7 | R  | 17.2 | R  | 19.1 | R  |
| 1      | 56053   | BIO 6720 BGII            | 25.7                                                      | MR | 10.9 | R  | 19.5 | R  | 18.4 | R  |
| 13     | 56054   | DACH 85S85 BGII          | 21.6                                                      | R  | 11.8 | R  | 20.3 | R  | 18.9 | R  |
| 3      | 56055   | ARCH 771 BGII            | 22.1                                                      | R  | 11.6 | R  | 19.3 | R  | 18.2 | R  |
| 8      | 56056   | C 9340 BGII              | 22.0                                                      | R  | 10.0 | R  | 18.9 | R  | 19.2 | R  |
| 4      | 56057   | RCH 1060 BGII            | 23.5                                                      | R  | 11.0 | R  | 18.3 | R  | 18.0 | R  |
| 12     | 56058   | KCH 9227 BGII            | 25.5                                                      | MR | 10.7 | R  | 18.4 | R  | 19.3 | R  |
| 9      | 56059   | ARCH 781 BGII            | 22.8                                                      | R  | 10.5 | R  | 19.5 | R  | 17.9 | R  |
| 11     | 56060   | RCH 1039 BGII            | 24.8                                                      | R  | 10.4 | R  | 19.2 | R  | 17.8 | R  |
| 7      | 56061   | CORE 101 BGII            | 21.1                                                      | R  | 12.7 | R  | 14.3 | R  | 17.2 | R  |
| 2      | 56062   | Daftari 615 BG II (ZC 2) | 21.8                                                      | R  | 10.4 | R  | 16.2 | R  | 19.2 | R  |
| 5      | 56063   | KCH 9226 BGII            | 21.9                                                      | R  | 10.8 | R  | 15.3 | R  | 18.7 | R  |

## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry            | Aphid (Average of 3 leaves/plant) |      |      |       |             | Remark |
|--------------------------|-----------------------------------|------|------|-------|-------------|--------|
|                          | DH                                | PE   | AD   | MU    | Mean        |        |
| SP7679 BGII (ZC 1)       | 7.29                              | 0.67 | 2.19 | 5.16  | <b>3.83</b> | BETL   |
| SRCH 369 BGII            | 8.76                              | 0.67 | 0.98 | 5.29  | <b>3.92</b> | BETL   |
| BIO 6720 BGII            | 8.00                              | 1.00 | 1.65 | 16.28 | <b>6.73</b> | BETL   |
| DACH 85S85 BGII          | 6.98                              | 0.67 | 1.38 | 2.38  | <b>2.85</b> | BETL   |
| ARCH 771 BGII            | 6.57                              | 0.67 | 1.46 | 10.32 | <b>4.75</b> | BETL   |
| C 9340 BGII              | 7.98                              | 0.33 | 1.23 | 18.26 | <b>6.95</b> | BETL   |
| RCH 1060 BGII            | 9.40                              | 0.67 | 1.10 | 0.93  | <b>3.02</b> | BETL   |
| KCH 9227 BGII            | 7.80                              | 0.67 | 1.07 | 2.52  | <b>3.01</b> | BETL   |
| ARCH 781 BGII            | 9.20                              | 0.67 | 0.87 | 9.71  | <b>5.11</b> | BETL   |
| RCH 1039 BGII            | 10.16                             | 0.67 | 0.60 | 5.69  | <b>4.28</b> | BETL   |
| CORE 101 BGII            | 7.91                              | 0.67 | 0.73 | 7.15  | <b>4.11</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 7.33                              | 1.00 | 1.02 | 19.85 | <b>7.30</b> | BETL   |
| KCH 9226 BGII            | 7.98                              | 1.00 | 1.30 | 12.97 | <b>5.81</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions –  
Leafhopper**

| Name of Entry            | Leafhopper (Average of 3 leaves/plant) |       |      |      |             | Remark |
|--------------------------|----------------------------------------|-------|------|------|-------------|--------|
|                          | DH                                     | PE    | AD   | MU   | Mean        |        |
| SP7679 BGII (ZC 1)       | 2.64                                   | 9.00  | 0.26 | 1.69 | <b>3.40</b> | BETL   |
| SRCH 369 BGII            | 3.40                                   | 10.00 | 0.29 | 2.70 | <b>4.10</b> | BETL   |
| BIO 6720 BGII            | 3.60                                   | 3.67  | 0.37 | 2.53 | <b>2.54</b> | BETL   |
| DACH 85S85 BGII          | 3.16                                   | 8.67  | 0.42 | 3.88 | <b>4.03</b> | BETL   |
| ARCH 771 BGII            | 1.98                                   | 9.00  | 0.71 | 1.01 | <b>3.18</b> | BETL   |
| C 9340 BGII              | 2.51                                   | 12.33 | 1.02 | 2.36 | <b>4.56</b> | BETL   |
| RCH 1060 BGII            | 2.44                                   | 9.00  | 0.77 | 1.35 | <b>3.39</b> | BETL   |
| KCH 9227 BGII            | 2.91                                   | 6.33  | 0.53 | 1.35 | <b>2.78</b> | BETL   |
| ARCH 781 BGII            | 3.33                                   | 2.67  | 0.47 | 1.18 | <b>1.91</b> | BETL   |
| RCH 1039 BGII            | 2.47                                   | 5.00  | 0.75 | 0.68 | <b>2.22</b> | BETL   |
| CORE 101 BGII            | 2.49                                   | 11.00 | 0.64 | 2.87 | <b>4.25</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 2.27                                   | 5.67  | 0.89 | 2.36 | <b>2.80</b> | BETL   |
| KCH 9226 BGII            | 2.51                                   | 8.67  | 0.77 | 1.52 | <b>3.37</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry            | JIG/plant |    |    |    |      | Remark |
|--------------------------|-----------|----|----|----|------|--------|
|                          | DH        | PE | AD | MU | Mean |        |
| SP7679 BGII (ZC 1)       | I         | -  | -  | -  | I    |        |
| SRCH 369 BGII            | II        | -  | -  | -  | II   |        |
| BIO 6720 BGII            | II        | -  | -  | -  | II   |        |
| DACH 85S85 BGII          | II        | -  | -  | -  | II   |        |
| ARCH 771 BGII            | I         | -  | -  | -  | I    |        |
| C 9340 BGII              | I         | -  | -  | -  | I    |        |
| RCH 1060 BGII            | I         | -  | -  | -  | I    |        |
| KCH 9227 BGII            | I         | -  | -  | -  | I    |        |
| ARCH 781 BGII            | II        | -  | -  | -  | II   |        |
| RCH 1039 BGII            | I         | -  | -  | -  | I    |        |
| CORE 101 BGII            | I         | -  | -  | -  | I    |        |
| Daftari 615 BG II (ZC 2) | I         | -  | -  | -  | I    |        |
| KCH 9226 BGII            | I         | -  | -  | -  | I    |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry            | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|--------------------------|------------------------------------|------|------|------|-------------|-------------|
|                          | DH                                 | PE   | AD   | MU   | Mean        |             |
| SP7679 BGII (ZC 1)       | 20.29                              | 3.00 | 2.19 | 3.31 | <b>7.20</b> | <b>BETL</b> |
| SRCH 369 BGII            | 16.24                              | 1.67 | 2.15 | 1.06 | <b>5.28</b> | <b>BETL</b> |
| BIO 6720 BGII            | 19.02                              | 2.33 | 1.95 | 6.81 | <b>7.53</b> | <b>BETL</b> |
| DACH 85S85 BGII          | 15.04                              | 2.00 | 3.19 | 3.50 | <b>5.93</b> | <b>BETL</b> |
| ARCH 771 BGII            | 14.80                              | 3.33 | 5.36 | 2.56 | <b>6.51</b> | <b>BETL</b> |
| C 9340 BGII              | 15.00                              | 2.00 | 3.23 | 6.42 | <b>6.66</b> | <b>BETL</b> |
| RCH 1060 BGII            | 15.00                              | 2.33 | 4.40 | 1.79 | <b>5.88</b> | <b>BETL</b> |
| KCH 9227 BGII            | 16.76                              | 3.00 | 4.06 | 3.53 | <b>6.84</b> | <b>BETL</b> |
| ARCH 781 BGII            | 17.71                              | 2.67 | 3.06 | 6.14 | <b>7.40</b> | <b>BETL</b> |
| RCH 1039 BGII            | 22.64                              | 2.33 | 2.90 | 1.13 | <b>7.25</b> | <b>BETL</b> |
| CORE 101 BGII            | 18.96                              | 2.67 | 3.59 | 4.47 | <b>7.42</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2) | 15.33                              | 2.00 | 2.50 | 2.25 | <b>5.52</b> | <b>BETL</b> |
| KCH 9226 BGII            | 21.60                              | 1.67 | 2.66 | 3.89 | <b>7.46</b> | <b>BETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry            | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|--------------------------|--------------------------------------|------|------|------|-------------|--------|
|                          | DH                                   | PE   | AD   | MU   | Mean        |        |
| SP7679 BGII (ZC 1)       | 0.67                                 | 1.33 | 0.63 | 1.11 | <b>0.94</b> | BETL   |
| SRCH 369 BGII            | 0.78                                 | 0.67 | 0.67 | 0.42 | <b>0.63</b> | BETL   |
| BIO 6720 BGII            | 1.11                                 | 0.67 | 0.63 | 0.74 | <b>0.79</b> | BETL   |
| DACH 85S85 BGII          | 1.56                                 | 1.00 | 0.60 | 0.48 | <b>0.91</b> | BETL   |
| ARCH 771 BGII            | 1.44                                 | 1.00 | 0.66 | 0.57 | <b>0.92</b> | BETL   |
| C 9340 BGII              | 1.22                                 | 1.33 | 0.43 | 0.58 | <b>0.89</b> | BETL   |
| RCH 1060 BGII            | 1.11                                 | 0.67 | 0.37 | 3.12 | <b>1.32</b> | BETL   |
| KCH 9227 BGII            | 0.56                                 | 1.33 | 0.23 | 0.85 | <b>0.74</b> | BETL   |
| ARCH 781 BGII            | 0.89                                 | 1.00 | 0.60 | 0.37 | <b>0.71</b> | BETL   |
| RCH 1039 BGII            | 0.78                                 | 1.00 | 0.67 | 1.06 | <b>0.88</b> | BETL   |
| CORE 101 BGII            | 0.89                                 | 1.00 | 0.40 | 0.63 | <b>0.73</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 0.78                                 | 1.00 | 0.26 | 0.69 | <b>0.68</b> | BETL   |
| KCH 9226 BGII            | 0.56                                 | 0.67 | 0.20 | 0.69 | <b>0.53</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry            | Natural Enemies (No./plant) |      |      |    |             | Remark |
|--------------------------|-----------------------------|------|------|----|-------------|--------|
|                          | DH                          | PE   | AD   | MU | Mean        |        |
| SP7679 BGII (ZC 1)       | 1.07                        | 0.00 | 0.00 | -  | <b>0.36</b> |        |
| SRCH 369 BGII            | 0.93                        | 0.00 | 0.00 | -  | <b>0.31</b> |        |
| BIO 6720 BGII            | 1.00                        | 0.00 | 0.00 | -  | <b>0.33</b> |        |
| DACH 85S85 BGII          | 0.80                        | 0.00 | 0.00 | -  | <b>0.27</b> |        |
| ARCH 771 BGII            | 0.44                        | 0.00 | 0.00 | -  | <b>0.15</b> |        |
| C 9340 BGII              | 0.58                        | 0.00 | 0.00 | -  | <b>0.19</b> |        |
| RCH 1060 BGII            | 0.60                        | 0.00 | 0.00 | -  | <b>0.20</b> |        |
| KCH 9227 BGII            | 0.64                        | 0.00 | 0.00 | -  | <b>0.21</b> |        |
| ARCH 781 BGII            | 0.49                        | 0.00 | 0.00 | -  | <b>0.16</b> |        |
| RCH 1039 BGII            | 0.56                        | 0.00 | 0.00 | -  | <b>0.19</b> |        |
| CORE 101 BGII            | 0.64                        | 0.00 | 0.00 | -  | <b>0.21</b> |        |
| Daftari 615 BG II (ZC 2) | 1.22                        | 0.00 | 0.00 | -  | <b>0.41</b> |        |
| KCH 9226 BGII            | 0.40                        | 0.00 | 0.20 | -  | <b>0.20</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry            | <i>Helicoverpa armigera</i> (No./5 plants) |      |      |    |      | Remark |
|--------------------------|--------------------------------------------|------|------|----|------|--------|
|                          | DH                                         | PE   | AD   | MU | Mean |        |
| SP7679 BGII (ZC 1)       | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SRCH 369 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO 6720 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 85S85 BGII          | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 771 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C 9340 BGII              | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1060 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9227 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 781 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1039 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 101 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9226 BGII            | 0.00                                       | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms**

| Name of Entry            | Spotted Bollworms (No./5 plants) |      |      |    |      | Remark |
|--------------------------|----------------------------------|------|------|----|------|--------|
|                          | DH                               | PE   | AD   | MU | Mean |        |
| SP7679 BGII (ZC 1)       | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SRCH 369 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO 6720 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 85S85 BGII          | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 771 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C 9340 BGII              | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1060 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9227 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 781 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1039 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CORE 101 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |
| KCH 9226 BGII            | 0.00                             | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





**Table: Advanced H X H trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry            | <i>Spodoptera litura</i> (No./5 plants) |      |      |    |             | Remark |
|--------------------------|-----------------------------------------|------|------|----|-------------|--------|
|                          | DH                                      | PE   | AD   | MU | Mean        |        |
| SP7679 BGII (ZC 1)       | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SRCH 369 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| BIO 6720 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| DACH 85S85 BGII          | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| ARCH 771 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| C 9340 BGII              | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| RCH 1060 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| KCH 9227 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| ARCH 781 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| RCH 1039 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CORE 101 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| KCH 9226 BGII            | 0.00                                    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry            | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |    |             | Remark |
|--------------------------|---------------------------------------------------------|------|------|----|-------------|--------|
|                          | DH                                                      | PE   | AD#  | MU | Mean        |        |
| SP7679 BGII (ZC 1)       | 2.17                                                    | 1.95 | 0.00 | -  | <b>1.37</b> | AETL   |
| SRCH 369 BGII            | 2.33                                                    | 2.15 | 0.00 | -  | <b>1.49</b> | AETL   |
| BIO 6720 BGII            | 2.17                                                    | 1.78 | 0.00 | -  | <b>1.32</b> | AETL   |
| DACH 85S85 BGII          | 1.50                                                    | 1.45 | 0.40 | -  | <b>1.12</b> | AETL   |
| ARCH 771 BGII            | 1.50                                                    | 0.95 | 0.00 | -  | <b>0.82</b> | BETL   |
| C 9340 BGII              | 3.33                                                    | 1.78 | 0.60 | -  | <b>1.90</b> | AETL   |
| RCH 1060 BGII            | 1.67                                                    | 2.38 | 0.40 | -  | <b>1.48</b> | AETL   |
| KCH 9227 BGII            | 1.67                                                    | 0.78 | 0.00 | -  | <b>0.82</b> | BETL   |
| ARCH 781 BGII            | 2.17                                                    | 1.78 | 0.60 | -  | <b>1.52</b> | AETL   |
| RCH 1039 BGII            | 1.83                                                    | 2.45 | 0.40 | -  | <b>1.56</b> | AETL   |
| CORE 101 BGII            | 1.50                                                    | 1.18 | 0.40 | -  | <b>1.03</b> | AETL   |
| Daftari 615 BG II (ZC 2) | 2.50                                                    | 1.18 | 0.40 | -  | <b>1.36</b> | AETL   |
| KCH 9226 BGII            | 2.67                                                    | 1.28 | 0.20 | -  | <b>1.38</b> | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry            | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |      | Remark |
|--------------------------|-----------------------------------------|----|------|----|------|--------|
|                          | DH                                      | PE | AD   | MU | Mean |        |
| SP7679 BGII (ZC 1)       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| SRCH 369 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| BIO 6720 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| DACH 85S85 BGII          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| ARCH 771 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| C 9340 BGII              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1060 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9227 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| ARCH 781 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| RCH 1039 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CORE 101 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| KCH 9226 BGII            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry            | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |       | Remark |
|--------------------------|-------------------------------------------------------|----|-------|----|-------|--------|
|                          | DH                                                    | PE | AD    | MU | Mean  |        |
| SP7679 BGII (ZC 1)       | 16.67                                                 | -  | 14.00 | -  | 15.34 | AETL   |
| SRCH 369 BGII            | 10.00                                                 | -  | 22.00 | -  | 16.00 | AETL   |
| BIO 6720 BGII            | 13.33                                                 | -  | 22.00 | -  | 17.67 | AETL   |
| DACH 85S85 BGII          | 8.33                                                  | -  | 26.00 | -  | 17.17 | AETL   |
| ARCH 771 BGII            | 6.67                                                  | -  | 16.00 | -  | 11.34 | AETL   |
| C 9340 BGII              | 21.67                                                 | -  | 26.00 | -  | 23.84 | AETL   |
| RCH 1060 BGII            | 6.67                                                  | -  | 22.00 | -  | 14.34 | AETL   |
| KCH 9227 BGII            | 10.00                                                 | -  | 14.00 | -  | 12.00 | AETL   |
| ARCH 781 BGII            | 20.00                                                 | -  | 18.00 | -  | 19.00 | AETL   |
| RCH 1039 BGII            | 16.67                                                 | -  | 16.00 | -  | 16.34 | AETL   |
| CORE 101 BGII            | 13.33                                                 | -  | 18.00 | -  | 15.67 | AETL   |
| Daftari 615 BG II (ZC 2) | 20.00                                                 | -  | 14.00 | -  | 17.00 | AETL   |
| KCH 9226 BGII            | 25.00                                                 | -  | 20.00 | -  | 22.50 | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Open****Boll Damage**

| Name of Entry            | Open Boll Damage (%) |       |       |    |              | Remark |
|--------------------------|----------------------|-------|-------|----|--------------|--------|
|                          | DH                   | PE    | AD    | MU | Mean         |        |
| SP7679 BGII (ZC 1)       | 11.05                | 10.00 | 8.00  | -  | <b>9.68</b>  |        |
| SRCH 369 BGII            | 9.13                 | 12.00 | 15.00 | -  | <b>12.04</b> |        |
| BIO 6720 BGII            | 10.57                | 11.00 | 15.00 | -  | <b>12.19</b> |        |
| DACH 85S85 BGII          | 10.41                | 9.00  | 20.00 | -  | <b>13.14</b> |        |
| ARCH 771 BGII            | 8.51                 | 10.00 | 5.00  | -  | <b>7.84</b>  |        |
| C 9340 BGII              | 14.25                | 9.00  | 15.00 | -  | <b>12.75</b> |        |
| RCH 1060 BGII            | 6.49                 | 8.00  | 14.00 | -  | <b>9.50</b>  |        |
| KCH 9227 BGII            | 7.19                 | 9.00  | 5.00  | -  | <b>7.06</b>  |        |
| ARCH 781 BGII            | 13.70                | 6.00  | 10.00 | -  | <b>9.90</b>  |        |
| RCH 1039 BGII            | 13.43                | 11.00 | 7.00  | -  | <b>10.48</b> |        |
| CORE 101 BGII            | 10.75                | 7.00  | 10.00 | -  | <b>9.25</b>  |        |
| Daftari 615 BG II (ZC 2) | 13.20                | 10.00 | 5.00  | -  | <b>9.40</b>  |        |
| KCH 9226 BGII            | 28.19                | 6.00  | 10.00 | -  | <b>14.73</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H trial in South Zone under Unprotected Conditions – Locule****Damage**

| Name of Entry            | Locule Damage (%) |      |       |    |              | Remark |
|--------------------------|-------------------|------|-------|----|--------------|--------|
|                          | DH                | PE   | AD    | MU | Mean         |        |
| SP7679 BGII (ZC 1)       | 14.50             | 5.00 | 12.50 | -  | <b>10.67</b> |        |
| SRCH 369 BGII            | 11.05             | 4.00 | 16.50 | -  | <b>10.52</b> |        |
| BIO 6720 BGII            | 5.67              | 4.00 | 17.50 | -  | <b>9.06</b>  |        |
| DACH 85S85 BGII          | 17.72             | 3.00 | 20.50 | -  | <b>13.74</b> |        |
| ARCH 771 BGII            | 5.78              | 3.00 | 10.50 | -  | <b>6.43</b>  |        |
| C 9340 BGII              | 16.55             | 2.00 | 21.00 | -  | <b>13.18</b> |        |
| RCH 1060 BGII            | 5.89              | 2.00 | 16.50 | -  | <b>8.13</b>  |        |
| KCH 9227 BGII            | 8.55              | 3.00 | 10.50 | -  | <b>7.35</b>  |        |
| ARCH 781 BGII            | 10.33             | 2.00 | 15.00 | -  | <b>9.11</b>  |        |
| RCH 1039 BGII            | 10.55             | 3.00 | 14.50 | -  | <b>9.35</b>  |        |
| CORE 101 BGII            | 8.33              | 2.00 | 15.00 | -  | <b>8.44</b>  |        |
| Daftari 615 BG II (ZC 2) | 9.17              | 4.00 | 14.00 | -  | <b>9.06</b>  |        |
| KCH 9226 BGII            | 21.16             | 3.00 | 20.50 | -  | <b>14.89</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 13(b): Advanced Evaluation Trial- II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Unprotected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | UAS, Dharwad                                                |    |      |    |      |    |      |    |
|        |         |                          | ALS                                                         |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 6      | 56051   | SP7679 BGII (ZC 1)       | 23.3                                                        | R  | 11.6 | R  | 14.8 | R  | 12.1 | R  |
| 10     | 56052   | SRCH 369 BGII            | 24.7                                                        | R  | 12.3 | R  | 14.9 | R  | 12.0 | R  |
| 1      | 56053   | BIO 6720 BGII            | 25.1                                                        | MR | 11.9 | R  | 15.9 | R  | 14.2 | R  |
| 13     | 56054   | DACH 85S85 BGII          | 24.5                                                        | R  | 13.1 | R  | 16.3 | R  | 10.8 | R  |
| 3      | 56055   | ARCH 771 BGII            | 26.0                                                        | MR | 13.8 | R  | 17.0 | R  | 11.3 | R  |
| 8      | 56056   | C 9340 BGII              | 24.2                                                        | R  | 11.7 | R  | 15.1 | R  | 11.8 | R  |
| 4      | 56057   | RCH 1060 BGII            | 25.2                                                        | MR | 12.4 | R  | 14.4 | R  | 11.5 | R  |
| 12     | 56058   | KCH 9227 BGII            | 25.1                                                        | MR | 11.5 | R  | 15.4 | R  | 10.2 | R  |
| 9      | 56059   | ARCH 781 BGII            | 25.9                                                        | MR | 11.9 | R  | 16.6 | R  | 12.2 | R  |
| 11     | 56060   | RCH 1039 BGII            | 25.4                                                        | MR | 12.4 | R  | 19.0 | R  | 14.1 | R  |
| 7      | 56061   | CORE 101 BGII            | 26.3                                                        | MR | 11.6 | R  | 18.0 | R  | 12.2 | R  |
| 2      | 56062   | Daftari 615 BG II (ZC 2) | 27.0                                                        | MR | 12.5 | R  | 18.1 | R  | 10.6 | R  |
| 5      | 56063   | KCH 9226 BGII            | 25.1                                                        | MR | 12.3 | R  | 16.7 | R  | 11.2 | R  |

**Table 13(c): Advanced Evaluation Trial- II of Intra-hirsutum Hybrids –Rainfed (AET-II Hybrids RF) under Protected and Unprotected conditions**

| Cod<br>e-I | Code-II | Entries                        | Average PDI & Disease Reaction (DR): protected conditions |    |     |    |      |    |     |    |                           |    |      |    | Average PDI & Disease Reaction: Unprotected conditions |    |      |    |      |    |     |    |
|------------|---------|--------------------------------|-----------------------------------------------------------|----|-----|----|------|----|-----|----|---------------------------|----|------|----|--------------------------------------------------------|----|------|----|------|----|-----|----|
|            |         |                                | Kaveri, Hyderabad                                         |    |     |    |      |    |     |    | Ankur , Atmakur(Warangal) |    |      |    | Kaveri, Hyderabad                                      |    |      |    |      |    |     |    |
|            |         |                                | ALB                                                       |    | BLB |    | GM   |    | TSV |    | TSV                       |    | HLS  |    | ALB                                                    |    | BLB  |    | GM   |    | TSV |    |
|            |         |                                | PDI                                                       | DR | PDI | DR | PDI  | DR | PDI | DR | PDI                       | DR | PDI  | DR | PDI                                                    | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 6          | 56051   | SP7679<br>BGII (ZC 1)          | 9.3                                                       | R  | 3.9 | R  | 9.4  | R  | 2.4 | R  | 12.1                      | R  | 14.3 | R  | 15.5                                                   | R  | 10.5 | R  | 17.5 | R  | 4.0 | R  |
| 10         | 56052   | SRCH 369<br>BGII               | 7.8                                                       | R  | 2.6 | R  | 5.1  | R  | 1.7 | R  | 15.1                      | R  | 15.4 | R  | 16.3                                                   | R  | 9.8  | R  | 15.4 | R  | 3.4 | R  |
| 1          | 56053   | BIO 6720<br>BGII               | 6.3                                                       | R  | 4.2 | R  | 8.2  | R  | 2.5 | R  | 11.6                      | R  | 29.4 | MR | 14.1                                                   | R  | 12.5 | R  | 15.3 | R  | 4.5 | R  |
| 13         | 56054   | DACH<br>85S85 BGII             | 2.7                                                       | R  | 1.8 | R  | 11.3 | R  | 2.6 | R  | 17.9                      | R  | 7.2  | R  | 14.8                                                   | R  | 10.0 | R  | 19.2 | R  | 4.0 | R  |
| 3          | 56055   | ARCH 771<br>BGII               | 7.5                                                       | R  | 2.6 | R  | 9.3  | R  | 2.3 | R  | 7.1                       | R  | 6.6  | R  | 15.1                                                   | R  | 9.5  | R  | 17.0 | R  | 3.9 | R  |
| 8          | 56056   | C 9340<br>BGII                 | 7.8                                                       | R  | 2.5 | R  | 7.9  | R  | 1.5 | R  | 11.1                      | R  | 5.1  | R  | 14.8                                                   | R  | 8.8  | R  | 13.3 | R  | 3.5 | R  |
| 4          | 56057   | RCH 1060<br>BGII               | 7.3                                                       | R  | 2.5 | R  | 11.1 | R  | 1.5 | R  | 10.8                      | R  | 12.5 | R  | 13.6                                                   | R  | 9.3  | R  | 15.8 | R  | 3.1 | R  |
| 12         | 56058   | KCH 9227<br>BGII               | 2.2                                                       | R  | 1.5 | R  | 4.3  | R  | 0.5 | R  | 13.5                      | R  | 5.4  | R  | 10.3                                                   | R  | 8.0  | R  | 10.8 | R  | 2.0 | R  |
| 9          | 56059   | ARCH 781<br>BGII               | 3.7                                                       | R  | 3.2 | R  | 10.1 | R  | 1.9 | R  | 14.1                      | R  | 16.4 | R  | 13.0                                                   | R  | 9.5  | R  | 16.2 | R  | 3.7 | R  |
| 11         | 56060   | RCH 1039<br>BGII               | 9.5                                                       | R  | 3.4 | R  | 6.6  | R  | 2.3 | R  | 9.6                       | R  | 6.2  | R  | 14.0                                                   | R  | 11.5 | R  | 13.0 | R  | 3.5 | R  |
| 7          | 56061   | CORE 101<br>BGII               | 6.5                                                       | R  | 2.5 | R  | 8.4  | R  | 1.1 | R  | 15.8                      | R  | 14.3 | R  | 12.5                                                   | R  | 13.3 | R  | 14.5 | R  | 4.0 | R  |
| 2          | 56062   | Daftari<br>615 BG II<br>(ZC 2) | 10.2                                                      | R  | 3.8 | R  | 12.1 | R  | 3.2 | R  | 14.2                      | R  | 31   | MR | 15.5                                                   | R  | 12.3 | R  | 17.8 | R  | 4.0 | R  |
| 5          | 56063   | KCH 9226<br>BGII               | 2.7                                                       | R  | 1.7 | R  | 5.1  | R  | 0.6 | R  | 11.8                      | R  | 11.0 | R  | 11.0                                                   | R  | 7.3  | R  | 10.8 | R  | 1.8 | R  |

### Agronomic Evaluation

#### DHARWAD

##### DHARWAD (RCH 1039 BGII)

The results of one season trial indicated that there is no difference in their growth parameters in response to different N levels (Table 53). RCH 1039 BGII records significantly higher number of bolls per plant (34.8) with planting geometry (90X45 cm) with higher N level (125% RDN) and significantly higher number of bolls per sq mtr (336) with planting geometry (90X15 cm) with higher N level (125% RDN). None of the interactions of S X N with respect to yield parameters were significant. Among the planting geometry 90 X 15 cm ( $S_1$ ) recorded numerically higher seed cotton yield (2552 kg/ha) as compared to other levels and control Bt- hybrid (CCH 666 BGII – 1731 kg/ha). It may be attributed to higher no of bolls per sq. mtr. Increased N levels from 75% to 100% numerically increased seed cotton yield (from 2420 kg/ha to 2579 kg/ha), however further increase in N level (from  $N_2$ - 100% RDN to  $N_3$ - 125% RDN) decreased the yield level (2470 kg/ha). Thus, RCH 1039 BGII performed better with planting geometry of 90 X 15 cm with 100% N levels to produce higher no of bolls per sq mtr and seed cotton yield per hectare.

**Table 53. Seed cotton yield (kg/ha) of RCH 1039 BGII as influenced by spacing levels and nutrient levels at Dharwad**

| Treatments             | $S_1$ :<br>90x15<br>cm | $S_2$ :<br>90x30<br>cm | $S_3$ :<br>90x45<br>cm | Mean | ANOVA    | SE d   | CD<br>(5%) | CV        |
|------------------------|------------------------|------------------------|------------------------|------|----------|--------|------------|-----------|
| $N_1$ : 75% RDN        | 2445                   | 2468                   | 2345                   | 2420 | Spacing  | 127.57 | NS         | 10.4<br>3 |
| $N_2$ : 100% RDN       | 2595                   | 2660                   | 2482                   | 2579 | Nitrogen | 127.57 | NS         |           |
| $N_3$ : 125% RDN       | 2617                   | 2719                   | 2581                   | 2470 | S X N    | 220.96 | NS         |           |
| Mean (spacing)         | 2552                   | 2616                   | 2470                   |      |          |        |            |           |
| Control (CCH 666 BGII) | 1731                   |                        |                        |      |          |        |            |           |

Basic parameters: pH: 7.0, OC (%): 0.51, Available N: 240 kg/ha, Available  $P_2O_5$ : 24.0 kg/ha, Available  $K_2O$ : 410 kg/ha, Recommended nutrients: 100:50:50 kg NPK/ha, Genotype: RCH 1039 BGII, Environment: Rainfed, Total rainfall during cropping period: 914.70 mm

##### DHARWAD (SRCH 369 BGII )

The results of one season trial on the agronomic requirements of promising pre-release SRCH-369 BG-II hybrid revealed that among the planting geometry 90 X 45 cm ( $S_1$ ) recorded numerically higher seed cotton yield (2560 kg/ha) as compared to other levels and control Bt- hybrid (CCH 666 BGII – 2038 kg/ha). It may be attributed to higher no of bolls per sq. mtr. Increased N levels from 75% to 125% numerically increased seed cotton yield (from 2070 kg/ha to 2288 kg/ha). Thus, SRCH 369 BGII performed better with planting geometry of 90 X 45 cm with 125% N levels to produce higher no of bolls per sq mtr and seed cotton yield per hectare (Table 55).



**Table 55. Seed cotton yield (kg/ha) of SRCH 369 BGII as influenced by spacing levels and nutrient levels at Dharwad**

| Treatments                | S <sub>1</sub> :<br>90x45<br>cm | S <sub>2</sub> :<br>90x60<br>cm | S <sub>3</sub> :<br>90x7<br>5 cm | Mean        | ANOVA    | SE d   | CD (5%) | CV    |
|---------------------------|---------------------------------|---------------------------------|----------------------------------|-------------|----------|--------|---------|-------|
| N <sub>1</sub> : 75% RDN  | 2483                            | 1973                            | 1753                             | <b>2070</b> | Spacing  | 100.74 | 215.39  | 12.40 |
| N <sub>2</sub> : 100% RDN | 2517                            | 2032                            | 1869                             | <b>2139</b> | Nitrogen | 100.74 | NS      |       |
| N <sub>3</sub> : 125% RDN | 2679                            | 2225                            | 1961                             | <b>2288</b> | S X N    | 174.48 | NS      |       |
| Mean                      | <b>2560</b>                     | <b>2077</b>                     | <b>1861</b>                      |             |          |        |         |       |
| Control (CCH 666 BGII)    | <b>2038</b>                     |                                 |                                  |             |          |        |         |       |

Basic parameters: pH: 7.2, OC (%): 0.62, Available N: 295 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 28.0 kg/ha, Available K<sub>2</sub>O: 560 kg/ha, Recommended nutrients: 100:50:50 kg NPK/ha, Genotype: SRCH 369 BGII, Total rainfall during cropping period: 914.70 mm

**NANDYAL (KCH 9227 BGII)**

The results of agronomic requirement studies conducted at Nandyal under rainfed conditions revealed (Table 56) that the effect of spacing and the interaction effect of spacing and nitrogen were found non-significant on seed cotton yield. However, significantly lower seed cotton yield (1602 kg/ha) was recorded with 75% recommended dose compared to other N treatments. The significantly highest seed cotton yield was recorded with N<sub>3</sub>.125%RDN ( 1895 kg/ha );which was on par with 100 % RDN (1840 kg/ha)

**Table 56: Seed cotton yield (kg/ha) of KCH 9227 BGII as influenced by spacing levels and nutrient level at Nandyal**

| Treatments                    | S <sub>1</sub> - 90 x<br>30 cm | S <sub>2</sub> - 90 x<br>45 cm | S <sub>3</sub> : 90 x<br>60 cm | Mean<br>(Nitrogen<br>) | ANOVA    | SE d | CD<br>(5%) | CV   |
|-------------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------|----------|------|------------|------|
| N <sub>1</sub> - 75% RDN      | 1657                           | 1639                           | 1515                           | 1604                   | Spacing  | 57   | NS         | 8.9% |
| N <sub>2</sub> - 100% RDN     | 1811                           | 1912                           | 1797                           | 1840                   | Nitrogen | 57   | 120        |      |
| N <sub>3</sub> - 125% RDN     | 1849                           | 1913                           | 1921                           | 1895                   | S X N    | 100  | NS         |      |
| N <sub>4</sub> -<br>75%RDN+MC | 1918                           | 1938                           | 1918                           | 1925                   |          |      |            |      |
| Mean (spacing)                | 1809                           | 1850                           | 1788                           |                        |          |      |            |      |
| Control<br>(CCH 666 BGII)     | 1792                           |                                |                                |                        |          |      |            |      |

MC : Microbial consortia as seed treatment and 25 days after sowing as soil application.

Basic parameters: pH: 8.53, EC: 0.47 dSm<sup>-1</sup>, OC (%): 0.33, Bulk density: 1.13, Available N: 182 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 52.3 kg/ha, Available K<sub>2</sub>O: 372.0 kg/ha, Recommended nutrients: 150:45:60 kg NPK/ha, Genotype: KCH 9227 BGII, Environment: Rainfed, Total rainfall during cropping period: 954.8 mm



### NANDYAL (C 9340 BGII)

The results of agronomic requirement studies conducted at Nandyal under rainfed conditions revealed that the effect of spacings was non-significant on seed cotton yield (Table 57). However, significantly lower seed cotton yield (1768 kg/ha) was recorded with 75% recommended dose compared to other N treatments. The significantly highest seed cotton yield was recorded with N<sub>2</sub>.100%RDN (1920 kg/ha) ;which was on par with 125 % RDN (1908 kg/ha). The interaction effect was found to be significant. The significantly highest seed cotton yield (1987 kg/ha) was registered with adopting spacing of S1.90x 30 cm with application of N2.100% RDN

**Table 57: Seed cotton yield (kg/ha) of C 9340 BGII as influenced by spacing levels and nutrient levels at Nandyal**

| Treatments                | S <sub>1</sub> - 90 x 30 cm | S <sub>2</sub> - 90 x 45 cm | S <sub>3</sub> : 90 x 60 cm | Mean (Nitrogen) | ANOV A   | SE d | CD (5%) | CV    |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------|----------|------|---------|-------|
| N <sub>1</sub> - 75% RDN  | 1590                        | 1811                        | 1902                        | 1768            | Spacine  | 47   | NS      | 8.7 % |
| N <sub>2</sub> - 100% RDN | 1987                        | 1907                        | 1864                        | 1920            | Nitrogen | 47   | 100     |       |
| N <sub>3</sub> - 125% RDN | 1981                        | 1882                        | 1862                        | 1908            | S X N    | 81   | 173     |       |
| Mean (spacing)            | 1853                        | 1867                        | 1876                        |                 |          |      |         |       |
| Control (CCH 666 BGII)    | 1910                        |                             |                             |                 |          |      |         |       |

Basic parameters: pH: 8.53, EC: 0.47 dSm<sup>-1</sup>, OC (%): 0.33, Bulk density: 1.13, Available N: 182 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 52.3 kg/ha, Available K<sub>2</sub>O: 372.0 kg/ha, Recommended nutrients: 150:45:60 kg NPK/ha, Genotype: C 9340 BGII, Environment: Rainfed, Total rainfall during cropping period: 954.8 mm

### NANDYAL (RCH 1060 BGII)

The results of agronomic requirement studies conducted at Nandyal under rainfed conditions revealed that the effect of spacings and interaction effect of spacing and N was non-significant on seed cotton yield (Table 58). However, significantly lower seed cotton yield (1761 kg/ha) was recorded with 75% recommended dose compared to other N treatments. The significantly highest seed cotton yield was recorded with N3.125%RDN (1912 kg/ha); which was on par with 100 % RDN (1893 kg/ha).





**Table 58. Seed cotton yield (kg/ha) of RCH 1060 BGII as influenced by spacing levels and nutrient levels at Nandyal**

| Treatments                | S1.  | S2.  | S3.  | Mean (Nitrogen) | ANOVA    | SE d | CD (5%) |
|---------------------------|------|------|------|-----------------|----------|------|---------|
| N <sub>1</sub> - 75% RDN  | 1602 | 1874 | 1808 | 1761            | Spacing  | 44   | NS      |
| N <sub>2</sub> - 100% RDN | 1868 | 1901 | 1910 | 1893            | Nitrogen | 44   | 95      |
| N <sub>3</sub> - 125% RDN | 1903 | 1946 | 1888 | 1912            | S X N    | 77   | NS      |
| Mean (spacing)            | 1791 | 1907 | 1867 |                 |          |      |         |
| Control<br>(CCH 666 BGII) | 1911 |      |      |                 |          |      |         |

Basic parameters: pH: 8.53, EC: 0.47 dSm<sup>-1</sup>, OC (%): 0.33, Bulk density: 1.13, Available N: 182 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 52.3 kg/ha, Available K<sub>2</sub>O: 372.0 kg/ha, Recommended nutrients: 150:45:60 kg NPK/ha, Genotype: RCH 1060 BGII, Environment: Rainfed, Total rainfall during cropping period: 954.8 mm

#### ADILABAD (ARCH-771 BG-II)

The results of agronomic requirement studies conducted at Adilabad under rainfed conditions shows that SCY was significantly recorded the highest (2532 kg/ha) with plant density (0.21 lakh ha<sup>-1</sup>) i.e. with 75 x 60 cm spacing, which was found significantly superior over other wider spacing of 120 x 60 cm with plant density (0.13 lakh ha<sup>-1</sup>) (2235 kg/ha) and 0.18 lakh ha<sup>-1</sup> i.e. at spacing of 90 x 60 cm (2455 kg/ha). (Table 59). The highest SCY (2579 kg/ha) was recorded with 125% RDN level, which was found significantly superior over 100% RDN (2390 kg/ha) and 75% RDN (2252 kg/ha). The interaction effect between plant geometry and fertilizer (N) levels with regards to all the growth parameters, yield attributes and SCY was found non-significant.

**Table 59. Seed cotton yield (kg/ha) of ARCH-771 BG-II as influenced by spacing and nitrogen levels at Adilabad**

| Treatments                   | N levels                 |                           |                           |      | ANOVA               | S.em± | CD (at 5%) |
|------------------------------|--------------------------|---------------------------|---------------------------|------|---------------------|-------|------------|
| Spacing                      | N <sub>1</sub> - 75% RDN | N <sub>2</sub> - 100% RDN | N <sub>3</sub> - 125% RDN | Mean | Spacing (S)         | 56.0  | 220.0      |
| S <sub>1</sub> - 75 x 60 cm  | 2365                     | 2497                      | 2733                      | 2532 | N levels (N)        | 52.0  | 160.2      |
| S <sub>2</sub> - 90 x 60 cm  | 2285                     | 2479                      | 2600                      | 2455 | Interaction (S x N) | 90.1  | NS         |
| S <sub>3</sub> - 120 x 60 cm | 2108                     | 2193                      | 2404                      | 2235 |                     |       |            |
| Mean                         | 2252                     | 2390                      | 2579                      |      |                     |       |            |

Basic parameters: pH: 7.8, EC: 0.38 dS m<sup>-1</sup>, OC (%): 0.42, Available N: 118 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 47.8 kg/ha, Available K<sub>2</sub>O: 310.9 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: ARCH 771 BGII, Environment: Rainfed, Total rainfall during cropping period: 1540.8 mm



**ADILABAD (ARCH-781 BG-II)**

The results of agronomic requirement studies conducted at Adilabad under rainfed conditions shows that SCY was recorded significantly highest (2914 kg/ha) with plant density (0.21 lakh ha<sup>-1</sup>) i.e. with 75 x 60 cm spacing, which was found significantly superior over other wider spacing of 120 x 60 cm with plant density (0.13 lakh ha<sup>-1</sup>) (2357 kg/ha) and 0.17 lakh ha<sup>-1</sup> i.e. at spacing of 90 x 60 cm (2554 kg/ha). (Table 60). The highest SCY (2978 kg/ha) was recorded with 125% RDN level, which was found significantly superior over 100% RDN (2529 kg/ha) and 75% RDN (2317 kg/ha). All the interaction effects between plant geometry and fertilizer (N) levels with regards to all the growth parameters, yield attributes and SCY were found non-significant.

**Table 60. Seed cotton yield (kg/ha) of ARCH-781 BG-II as influenced by spacing and nitrogen levels at Adilabad**

| Treatments                   | N levels                 |                           |                           |             | ANOVA               | S.em± | CD (at 5%) |
|------------------------------|--------------------------|---------------------------|---------------------------|-------------|---------------------|-------|------------|
|                              | N <sub>1</sub> - 75% RDN | N <sub>2</sub> - 100% RDN | N <sub>3</sub> - 125% RDN | Mean        |                     |       |            |
| Spacing                      |                          |                           |                           |             | Spacing (S)         | 48.3  | 189.6      |
| S <sub>1</sub> - 75 x 60 cm  | 2674                     | 2843                      | 3224                      | <b>2914</b> | N levels (N)        | 56.1  | 172.8      |
| S <sub>2</sub> - 90 x 60 cm  | 2345                     | 2497                      | 2819                      | <b>2554</b> | Interaction (S x N) | 97.1  | NS         |
| S <sub>3</sub> - 120 x 60 cm | 1933                     | 2247                      | 2889                      | <b>2357</b> |                     |       |            |
| Mean                         | <b>2317</b>              | <b>2529</b>               | <b>2978</b>               |             |                     |       |            |

Basic parameters: pH: 7.8, EC: 0.38 dS m<sup>-1</sup>, OC (%): 0.42, Available N: 118 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 47.8 kg/ha, Available K<sub>2</sub>O: 310.9 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: ARCH 781 BGII, Environment: Rainfed, Total rainfall during cropping period: 1540.8 mm



**ADILABAD (BIO-6720 BG-II)**

The results of agronomic requirement studies conducted at Adilabad under rainfed conditions shows that SCY was significantly highest (2610 kg/ha) with plant density (0.21 lakh ha<sup>-1</sup>) *i.e.* with 75 x 60 cm spacing which was found significantly superior over wider spacing of 120 x 60 cm with plant density (0.13 lakh ha<sup>-1</sup>) (1958 kg/ha) and 0.18 lakh ha<sup>-1</sup> *i.e.* at spacing of 90 x 60 cm (2308 kg/ha). (Table 61). Highest SCY (2551 kg/ha) was recorded with 125% RDN level which was found significantly superior over 100% RDN (2272 kg/ha) and 75% RDN (2053 kg/ha). All the interaction effect between plant geometry and fertilizer (N) levels with regards to all the growth parameters, yield attributes and SCY were found non-significant.

**Table 61. Seed cotton yield (kg/ha) of Bio-6720 BG-II as influenced by spacing and nitrogen levels at Adilabad**

| Treatments                   | N levels                       |                                 |                                 |             | ANOVA               | S.em <sub>±</sub> | CD (at 5%) |
|------------------------------|--------------------------------|---------------------------------|---------------------------------|-------------|---------------------|-------------------|------------|
| Spacing                      | N <sub>1</sub> -<br>75%<br>RDN | N <sub>2</sub> -<br>100%<br>RDN | N <sub>3</sub> -<br>125%<br>RDN | Mean        | Spacing (S)         | 52.4              | 205.7      |
| S <sub>1</sub> - 75 x 60 cm  | 2407                           | 2522                            | 2901                            | <b>2610</b> | N levels (N)        | 68.8              | 211.9      |
| S <sub>2</sub> - 90 x 60 cm  | 2128                           | 2302                            | 2493                            | <b>2308</b> | Interaction (S x N) | 119.1             | NS         |
| S <sub>3</sub> - 120 x 60 cm | 1623                           | 1992                            | 2259                            | <b>1958</b> |                     |                   |            |
| <b>Mean</b>                  | <b>2053</b>                    | <b>2272</b>                     | <b>2551</b>                     |             |                     |                   |            |

Basic parameters: pH: 7.8, EC: 0.38 dS m<sup>-1</sup>, OC (%): 0.42, Available N: 118 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 47.8 kg/ha, Available K<sub>2</sub>O: 310.9 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: BIO 6720 BGII, Environment: Rainfed, Total rainfall during cropping period: 1540.8 mm



**MUDHOLE (KCH 9226)**

The results of agronomic requirement studies conducted at Mudhole under rainfed conditions revealed that spacing and nitrogen levels significantly influenced the seed cotton yield (Table 63). With respect to spacing, the seed cotton yield (SCY) was significantly highest (2495 kg/ha) under closer spacing of 90 × 45 cm, followed by 90 × 60 cm (2315 kg/ha) and 90 × 75 cm (2197 kg/ha). Higher yield under closer spacing might be attributed to higher plant population and greater number of bolls per unit area. Amongst nitrogen levels, the highest seed cotton yield (2649 kg/ha) was recorded with 125% RDN, which was significantly superior over 75% RDN (2124 kg/ha) and 100% RDN (2233 kg/ha). The seed cotton yield was significantly influenced by the interaction between plant geometry and nitrogen levels. The seed cotton yield (SCY) was significantly highest (2719 kg/ha) under closer spacing of 90 × 45 cm along with 125% RDN

**Table 63. Seed cotton yield (kg/ha) of KCH 9226 as influenced by spacing levels and nutrient levels at Mudhole**

| Treatments                | S <sub>1</sub> - 90 x 45 cm | S <sub>2</sub> - 90 x 60 cm | S <sub>3</sub> - 90 x 75 cm | Mean (Nitrogen ) | ANOVA        | SE d  | CD (5%) |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|------------------|--------------|-------|---------|
| N <sub>1</sub> - 75 %RDN  | 2237.7                      | 2200.7                      | 1934.7                      | <b>2124</b>      | Spacing (S)  | 41.8  | 116.1   |
| N <sub>2</sub> - 100 %RDN | 2527.7                      | 2098.7                      | 2073.3                      | <b>2233</b>      | Nitrogen (N) | 58.2  | 126.9   |
| N <sub>3</sub> -125 %RDN  | 2719.0                      | 2644.3                      | 2583.0                      | <b>2649</b>      | S x N        | 100.9 | 219.8   |
| <b>Mean (Spacing)</b>     | <b>2495</b>                 | <b>2315</b>                 | <b>2197</b>                 |                  |              |       |         |

Basic parameters: pH: 7.3, EC: 0.24 dSm<sup>-1</sup>, OC (%): 0.4, Available N: 130 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 31.8 kg/ha, Available K<sub>2</sub>O: 405 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: KCH 9226 BGII, Environment: Rainfed, Total rainfall during cropping period: 1551.9 mm



**MUDHOLE (CORE-101)**

The results of agronomic requirement studies conducted at Mudhole under rainfed conditions revealed that spacing and nitrogen levels significantly influenced the seed cotton yield. (Table 64). The seed cotton yield (SCY) was significantly highest (2206 kg/ha) under 90 × 45 cm spacing, followed by 90 × 60 cm (2058 kg/ha) and 90 × 75 cm (1932 kg/ha). Higher yield under closer spacing might be attributed to higher plant density and increased boll production per unit area. Amongst nitrogen levels, the highest seed cotton yield (2320 kg/ha) was recorded with 125% RDN, which was significantly superior to N<sub>2</sub>. 100% RDN (1999 kg/ha) and 75%RDN (1877 kg/ha). The results indicated that the crop responded positively to higher nitrogen application. The interaction between plant geometry and nitrogen levels showed non-significant influence on seed cotton yield.

**Table 64. Seed cotton yield (kg/ha) of CORE-101 as influenced by spacing levels and nutrient levels at Mudhole**

| Treatments                | S <sub>1</sub> - 90 x 45 cm | S <sub>2</sub> - 90 x 60 cm | S <sub>3</sub> - 90 x 75 cm | Mean (Nitrogen) | ANOVA               | SE d  | CD (5%) |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------|---------------------|-------|---------|
| N <sub>1</sub> - 75 %RDN  | 1937.3                      | 1960.3                      | 1733.7                      | <b>1877</b>     | <b>Spacing (S)</b>  | 55.2  | 153.2   |
| N <sub>2</sub> - 100 %RDN | 2121.3                      | 1955.3                      | 1920.7                      | <b>1999</b>     | <b>Nitrogen (N)</b> | 60.8  | 132.4   |
| N <sub>3</sub> -125 %RDN  | 2560.3                      | 2259.7                      | 2141.0                      | <b>2320</b>     | <b>S x N</b>        | 105.2 | 229.3   |
| <b>Mean (Spacing)</b>     | <b>2206</b>                 | <b>2058</b>                 | <b>1932</b>                 |                 |                     |       |         |

Basic parameters: pH: 7.3, EC: 0.24 dSm<sup>-1</sup>, OC (%): 0.4, Available N: 130 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 31.8 kg/ha, Available K<sub>2</sub>O: 405 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: CORE 101 BGII, Environment: Rainfed, Total rainfall during cropping period: 1551.9 mm



**MUDHOLE (DACH-85S85)**

The results of agronomic requirement studies conducted at Mudhole under rainfed conditions revealed that spacing and nitrogen levels significantly influenced the seed cotton yield. (Table 65). With respect to spacing, the seed cotton yield (SCY) was significantly highest (2059 kg/ha) under 90 × 45 cm spacing, followed by 90 × 60 cm (1886 kg/ha) and 90 × 75 cm (1673 kg/ha). Amongst nitrogen levels, the highest seed cotton yield (2189 kg/ha) was recorded with 125% RDN, which was significantly superior over 100% RDN (1916 kg/ha) and 75% RDN (1514 kg/ha), indicating a positive response of the crop to higher nitrogen application. The interaction between plant geometry and nitrogen levels had a significant influence on seed cotton yield. The highest seed cotton yield (2509 kg/ha) was recorded with the combination of 90 × 45 cm spacing and 125% nitrogen, indicating that higher nitrogen application under closer spacing enhanced yield through improved nutrient utilization and higher boll production.

**Table 65. Seed cotton yield (kg/ha) of DACH-85S85 as influenced by spacing levels and nutrient levels at Mudhole**

| Treatments                | S <sub>1</sub> - 90 x 45 cm | S <sub>2</sub> - 90 x 60 cm | S <sub>3</sub> - 90 x 75 cm | Mean (Nitrogen) | ANOVA               | SE d | CD (5%) |
|---------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------|---------------------|------|---------|
| N <sub>1</sub> - 75 %RDN  | 1579.3                      | 1583.8                      | 1378.7                      | <b>1514</b>     | <b>Spacing (S)</b>  | 31.5 | 87.6    |
| N <sub>2</sub> - 100 %RDN | 2088.7                      | 1977.8                      | 1681.7                      | <b>1916</b>     | <b>Nitrogen (N)</b> | 46.3 | 100.8   |
| N <sub>3</sub> -125 %RDN  | 2508.7                      | 2098.0                      | 1960.0                      | <b>2189</b>     | <b>S x N</b>        | 80.1 | 174.6   |
| <b>Mean (Spacing)</b>     | <b>2059</b>                 | <b>1886</b>                 | <b>1673</b>                 |                 |                     |      |         |

Basic parameters: pH: 7.3, EC: 0.24 dSm<sup>-1</sup>, OC (%): 0.4, Available N: 130 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 31.8 kg/ha, Available K<sub>2</sub>O: 405 kg/ha, Recommended nutrients: 120:60:60 kg NPK/ha, Genotype: DACH 85S85 BGII, Environment: Rainfed, Total rainfall during cropping period: 1551.9 mm



## Initial Evaluation Trial of Compact Intra-Hirsutum Bt Hybrids - Rainfed

### *Constitution of Trial*

The trial was constituted with 15 Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids in closer spacing and one check hybrid in normal spacing as furnished below.

| S. No. | Code-I    | Code -II     | Entries                            | Sponsored by                 |
|--------|-----------|--------------|------------------------------------|------------------------------|
| 1      | 14        | 56071        | DACH 91S19 BGII                    | Dharti                       |
| 2      | 10        | 56072        | DACH 84S48 BGII                    | Dharti                       |
| 3      | 6         | 56073        | GCH-5508 Bt2                       | Geenex                       |
| 4      | 3         | 56074        | CCH 527 BGII                       | Caspian seeds pvt ltd        |
| 5      | 1         | 56075        | PCH 2997 Bt2                       | Prabhat Agri Biotech Limited |
| 6      | 17        | 56076        | ARCH 2527 BGII                     | Ankur Seeds                  |
| 7      | 12        | 56077        | ARCH 2526 BGII                     | Ankur Seeds                  |
| 8      | 8         | 56078        | CCH-501 Bt2                        | Caspian Seeds Pvt Ltd        |
| 9      | 5         | 56079        | YASH-2222 BG II                    | Yashoda Hybrid Seeds         |
| 10     | 2         | 56080        | C9404 BG-II                        | Mahyco Private Limited       |
| 11     | <b>16</b> | <b>56081</b> | <b>SP7679 BGII (ZC 1)</b>          |                              |
| 12     | <b>13</b> | <b>56082</b> | <b>Daftari 615 BG II (ZC 2)</b>    |                              |
| 13     | 11        | 56083        | 22 SS 44 BG II                     | Sri Sathya Agri Biotech      |
| 14     | 9         | 56084        | YASH-8888 BG II                    | Yashoda Hybrid Seeds         |
| 15     | 7         | 56085        | US 752 BGII                        | SeedWorks                    |
| 16     | 4         | 56086        | DC5302 BGII                        | Rallis India Limited         |
| 17     | 15        | 56087        | NCS 2552 Bt2                       | Nuziveedu Seeds Limited      |
| 18     |           |              | <b>SP7679 BGII (ZC 1) (normal)</b> |                              |

The trial was conducted in seven locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, Perambalur, Warangal (Ankur), and Parigi (Prabhat).

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** 90 x 15 cm was followed for the coded entries and the zonal check hybrid has been included under recommended spacing.

**Number of rows:** 6 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Parigi (PrabhatAgri Biotech) | Mean         |
|--------|------------------------------------|---------|----------|---------|------------|------------------|------------------------------|--------------|
| 1      | DACH 91S19 BGII                    | 104.9   | 109.1    | 112.0   | 101.7      | 119.0            | 71.3                         | <b>103.0</b> |
| 2      | DACH 84S48 BGII                    | 106.1   | 107.7    | 124.8   | 94.3       | 111.0            | 75.7                         | <b>103.3</b> |
| 3      | GCH-5508 Bt2                       | 132.9   | 118.8    | 111.1   | 102.0      | 115.3            | 74.7                         | <b>109.1</b> |
| 4      | CCH 527 BGII                       | 144.7   | 140.5    | 119.9   | 101.3      | 133.5            | 89.7                         | <b>121.6</b> |
| 5      | PCH 2997 Bt2                       | 110.0   | 129.3    | 104.9   | 94.3       | 116.0            | 78.3                         | <b>105.5</b> |
| 6      | ARCH 2527 BGII                     | 116.5   | 131.5    | 124.6   | 101.7      | 115.2            | 72.0                         | <b>110.3</b> |
| 7      | ARCH 2526 BGII                     | 129.7   | 128.7    | 109.8   | 99.7       | 118.2            | 72.3                         | <b>109.7</b> |
| 8      | CCH-501 Bt2                        | 148.7   | 134.5    | 120.1   | 112.7      | 122.7            | 80.7                         | <b>119.9</b> |
| 9      | YASH-2222 BG II                    | 95.9    | 112.3    | 96.9    | 94.0       | 115.0            | 60.7                         | <b>95.8</b>  |
| 10     | C9404 BG-II                        | 122.4   | 127.1    | 107.1   | 106.3      | 112.2            | 86.0                         | <b>110.2</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 124.5   | 120.3    | 107.4   | 101.3      | 110.0            | 75.3                         | <b>106.5</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 137.3   | 118.0    | 116.2   | 92.7       | 117.0            | 85.0                         | <b>111.0</b> |
| 13     | 22 SS 44 BG II                     | 116.7   | 110.7    | 103.4   | 101.3      | 111.3            | 64.7                         | <b>101.4</b> |
| 14     | YASH-8888 BG II                    | 112.5   | 116.7    | 101.4   | 92.3       | 102.0            | 74.7                         | <b>99.9</b>  |
| 15     | US 752 BGII                        | 128.1   | 109.7    | 119.0   | 98.7       | 112.3            | 66.7                         | <b>105.8</b> |
| 16     | DC5302 BGII                        | 124.6   | 126.1    | 98.0    | 100.0      | 113.3            | 77.3                         | <b>106.6</b> |
| 17     | NCS 2552 Bt2                       | 131.7   | 116.1    | 109.1   | 101.0      | 116.8            | 76.7                         | <b>108.6</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 112.9   | 123.6    | 98.2    | 94.3       | 115.2            | 94.3                         | <b>106.4</b> |
|        | CD @ 5%                            | 16.3    | 13.7     | 20.6    | 18.7       |                  |                              |              |
|        | CV %                               | 8.0     | 6.8      | 11.3    | 11.7       |                  |                              |              |



**Number of monopodia in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean       |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|------------|
| 1      | DACH 91S19 BGII                    | 0.2     | 0.5      | 0.9     | 1.1        | 1.4                 | 1.0                                | <b>0.9</b> |
| 2      | DACH 84S48 BGII                    | 0.2     | 0.9      | 0.3     | 0.3        | 0.8                 | 0.0                                | <b>0.4</b> |
| 3      | GCH-5508 Bt2                       | 0.3     | 0.4      | 0.7     | 0.4        | 1.5                 | 1.0                                | <b>0.7</b> |
| 4      | CCH 527 BGII                       | 0.1     | 0.7      | 0.9     | 0.7        | 1.1                 | 1.0                                | <b>0.8</b> |
| 5      | PCH 2997 Bt2                       | 0.2     | 0.9      | 0.9     | 0.7        | 1.2                 | 0.0                                | <b>0.7</b> |
| 6      | ARCH 2527 BGII                     | 0.3     | 0.5      | 0.3     | 0.9        | 1.3                 | 0.0                                | <b>0.6</b> |
| 7      | ARCH 2526 BGII                     | 0.1     | 0.5      | 1.0     | 0.7        | 1.4                 | 0.0                                | <b>0.6</b> |
| 8      | CCH-501 Bt2                        | 0.3     | 0.5      | 2.7     | 0.7        | 1.3                 | 1.0                                | <b>1.1</b> |
| 9      | YASH-2222 BG II                    | 0.3     | 1.0      | 1.2     | 0.7        | 1.7                 | 1.0                                | <b>1.0</b> |
| 10     | C9404 BG-II                        | 0.1     | 0.8      | 0.3     | 0.9        | 1.2                 | 1.0                                | <b>0.7</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 0.7     | 1.5      | 1.3     | 1.6        | 1.4                 | 1.0                                | <b>1.3</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 0.2     | 0.6      | 0.2     | 0.2        | 1.1                 | 1.0                                | <b>0.6</b> |
| 13     | 22 SS 44 BG II                     | 0.3     | 0.3      | 0.7     | 0.8        | 1.5                 | 1.0                                | <b>0.8</b> |
| 14     | YASH-8888 BG II                    | 0.2     | 0.9      | 1.7     | 0.6        | 1.6                 | 0.0                                | <b>0.8</b> |
| 15     | US 752 BGII                        | 0.2     | 0.6      | 2.0     | 1.1        | 1.2                 | 0.0                                | <b>0.9</b> |
| 16     | DC5302 BGII                        | 0.1     | 0.2      | 0.3     | 0.6        | 1.1                 | 1.0                                | <b>0.6</b> |
| 17     | NCS 2552 Bt2                       | 0.3     | 0.3      | 1.0     | 0.9        | 1.0                 | 1.0                                | <b>0.8</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 0.5     | 2.5      | 0.9     | 2.8        | 1.8                 | 0.0                                | <b>1.4</b> |
|        | CD @ 5%                            | 0.1     | 0.7      | 0.2     | 0.8        |                     |                                    |            |
|        | CV %                               | 32.5    | 56.1     | 11.5    | 54.8       |                     |                                    |            |

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**Number of sympodia in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 8.8     | 14.9     | 14.1    | 12.1       | 14.5                | 11.0                               | <b>12.6</b> |
| 2      | DACH 84S48 BGII                    | 8.7     | 14.3     | 16.1    | 13.1       | 13.4                | 12.0                               | <b>12.9</b> |
| 3      | GCH-5508 Bt2                       | 9.1     | 12.9     | 14.8    | 14.7       | 13.6                | 11.0                               | <b>12.7</b> |
| 4      | CCH 527 BGII                       | 8.1     | 15.5     | 15.1    | 14.0       | 15.6                | 11.0                               | <b>13.2</b> |
| 5      | PCH 2997 Bt2                       | 10.2    | 15.3     | 15.9    | 14.7       | 14.5                | 11.0                               | <b>13.6</b> |
| 6      | ARCH 2527 BGII                     | 7.8     | 15.7     | 16.1    | 14.1       | 13.2                | 12.0                               | <b>13.2</b> |
| 7      | ARCH 2526 BGII                     | 7.3     | 13.5     | 13.9    | 12.8       | 11.9                | 11.0                               | <b>11.7</b> |
| 8      | CCH-501 Bt2                        | 9.8     | 13.1     | 14.4    | 14.1       | 13.2                | 12.0                               | <b>12.8</b> |
| 9      | YASH-2222 BG II                    | 10.9    | 14.2     | 14.6    | 13.6       | 13.9                | 10.0                               | <b>12.9</b> |
| 10     | C9404 BG-II                        | 11.3    | 15.7     | 13.8    | 13.2       | 14.7                | 10.0                               | <b>13.1</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 8.9     | 15.5     | 13.7    | 14.4       | 14.1                | 12.0                               | <b>13.1</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 10.4    | 12.7     | 14.7    | 10.8       | 13.6                | 10.0                               | <b>12.0</b> |
| 13     | 22 SS 44 BG II                     | 7.9     | 13.6     | 14.0    | 13.7       | 14.3                | 10.0                               | <b>12.3</b> |
| 14     | YASH-8888 BG II                    | 8.9     | 13.5     | 14.0    | 13.2       | 13.4                | 11.0                               | <b>12.3</b> |
| 15     | US 752 BGII                        | 9.9     | 14.1     | 16.4    | 14.3       | 12.5                | 12.0                               | <b>13.2</b> |
| 16     | DC5302 BGII                        | 10.4    | 13.5     | 13.1    | 13.8       | 12.7                | 12.0                               | <b>12.6</b> |
| 17     | NCS 2552 Bt2                       | 10.5    | 15.3     | 15.1    | 12.6       | 13.2                | 12.0                               | <b>13.1</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 11.0    | 16.3     | 13.9    | 15.1       | 16.5                | 14.0                               | <b>14.5</b> |
|        | CD @ 5%                            | 1.6     | NS       | 2.8     | 2.7        |                     |                                    |             |
|        | CV %                               | 10.7    | 12.3     | 11.5    | 12.3       |                     |                                    |             |

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**Boll weight (g) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean       |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|------------|
| 1      | DACH 91S19 BGII                    | 4.8     | 5.2      | 5.0     | 5.0        | 4.5                 | 6.1                                | <b>5.1</b> |
| 2      | DACH 84S48 BGII                    | 4.4     | 5.0      | 5.3     | 5.6        | 4.7                 | 6.2                                | <b>5.2</b> |
| 3      | GCH-5508 Bt2                       | 5.5     | 5.6      | 5.3     | 5.3        | 4.9                 | 7.3                                | <b>5.7</b> |
| 4      | CCH 527 BGII                       | 5.3     | 5.9      | 5.3     | 5.5        | 5.0                 | 6.8                                | <b>5.6</b> |
| 5      | PCH 2997 Bt2                       | 5.1     | 6.1      | 5.3     | 5.5        | 4.4                 | 6.5                                | <b>5.5</b> |
| 6      | ARCH 2527 BGII                     | 5.2     | 5.2      | 5.2     | 4.5        | 4.5                 | 6.0                                | <b>5.1</b> |
| 7      | ARCH 2526 BGII                     | 5.5     | 5.7      | 5.3     | 5.2        | 5.4                 | 6.7                                | <b>5.6</b> |
| 8      | CCH-501 Bt2                        | 5.4     | 5.8      | 5.1     | 6.3        | 4.8                 | 6.6                                | <b>5.7</b> |
| 9      | YASH-2222 BG II                    | 3.7     | 5.2      | 4.4     | 4.6        | 4.4                 | 5.5                                | <b>4.6</b> |
| 10     | C9404 BG-II                        | 4.9     | 5.5      | 5.2     | 5.2        | 4.2                 | 6.6                                | <b>5.3</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 5.4     | 5.8      | 6.0     | 5.7        | 4.7                 | 6.4                                | <b>5.7</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 5.1     | 6.2      | 5.3     | 6.1        | 5.1                 | 7.1                                | <b>5.8</b> |
| 13     | 22 SS 44 BG II                     | 5.4     | 6.5      | 5.1     | 5.9        | 5.4                 | 7.0                                | <b>5.9</b> |
| 14     | YASH-8888 BG II                    | 4.1     | 4.7      | 4.4     | 4.3        | 3.9                 | 5.6                                | <b>4.5</b> |
| 15     | US 752 BGII                        | 5.4     | 5.8      | 4.9     | 5.6        | 5.3                 | 5.9                                | <b>5.5</b> |
| 16     | DC5302 BGII                        | 4.5     | 5.1      | 4.9     | 5.1        | 4.5                 | 6.0                                | <b>5.0</b> |
| 17     | NCS 2552 Bt2                       | 4.7     | 5.3      | 4.2     | 5.1        | 4.8                 | 6.0                                | <b>5.0</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 5.6     | 6.0      | 6.0     | 6.2        | 4.6                 | 6.2                                | <b>5.8</b> |
|        | CD @ 5%                            | 0.5     | 0.8      | 0.3     | 0.9        |                     |                                    |            |
|        | CV %                               | 6.6     | 9.1      | 4.0     | 11.0       |                     |                                    |            |

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**Number of bolls / plant in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 10.1    | 11.1     | 8.2     | 11.7       | 15.0                               | <b>11.2</b> |
| 2      | DACH 84S48 BGII                    | 9.1     | 10.8     | 9.0     | 9.2        | 13.0                               | <b>10.2</b> |
| 3      | GCH-5508 Bt2                       | 10.0    | 8.5      | 8.7     | 8.7        | 12.0                               | <b>9.6</b>  |
| 4      | CCH 527 BGII                       | 10.8    | 9.6      | 8.6     | 9.4        | 11.0                               | <b>9.9</b>  |
| 5      | PCH 2997 Bt2                       | 14.1    | 10.3     | 8.5     | 12.1       | 15.0                               | <b>12.0</b> |
| 6      | ARCH 2527 BGII                     | 9.9     | 10.0     | 8.6     | 9.7        | 14.0                               | <b>10.4</b> |
| 7      | ARCH 2526 BGII                     | 8.9     | 8.9      | 7.2     | 10.8       | 11.0                               | <b>9.4</b>  |
| 8      | CCH-501 Bt2                        | 10.2    | 10.5     | 7.5     | 10.9       | 11.0                               | <b>10.0</b> |
| 9      | YASH-2222 BG II                    | 11.4    | 12.0     | 8.6     | 14.7       | 12.0                               | <b>11.7</b> |
| 10     | C9404 BG-II                        | 9.8     | 9.9      | 8.2     | 13.0       | 13.0                               | <b>10.8</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 9.1     | 8.9      | 8.0     | 12.2       | 11.0                               | <b>9.8</b>  |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 7.5     | 9.1      | 8.5     | 9.4        | 12.0                               | <b>9.3</b>  |
| 13     | 22 SS 44 BG II                     | 9.5     | 8.0      | 7.5     | 10.4       | 11.0                               | <b>9.3</b>  |
| 14     | YASH-8888 BG II                    | 9.2     | 10.9     | 8.0     | 10.8       | 11.0                               | <b>10.0</b> |
| 15     | US 752 BGII                        | 12.9    | 10.3     | 7.6     | 12.6       | 10.0                               | <b>10.7</b> |
| 16     | DC5302 BGII                        | 12.5    | 10.3     | 8.5     | 13.9       | 14.0                               | <b>11.8</b> |
| 17     | NCS 2552 Bt2                       | 10.1    | 10.7     | 8.7     | 16.2       | 15.0                               | <b>12.1</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 13.9    | 16.2     | 7.4     | 17.3       | 20.0                               | <b>15.0</b> |
|        | CD @ 5%                            | 2.2     | 2.2      | 1.7     | 3.3        |                                    |             |
|        | CV %                               | 12.7    | 12.8     | 12.3    | 17.4       |                                    |             |

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**Number of bolls / sq.m. in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 65.6    | 79.3     | 60.7    | 110.3      | 67.9                | 92.0                               | <b>79.3</b> |
| 2      | DACH 84S48 BGII                    | 70.6    | 90.7     | 66.6    | 85.7       | 60.4                | 89.0                               | <b>77.2</b> |
| 3      | GCH-5508 Bt2                       | 78.2    | 80.7     | 64.4    | 104.7      | 53.2                | 80.0                               | <b>76.9</b> |
| 4      | CCH 527 BGII                       | 80.3    | 85.3     | 63.5    | 90.3       | 50.4                | 76.0                               | <b>74.3</b> |
| 5      | PCH 2997 Bt2                       | 90.4    | 80.7     | 62.6    | 113.7      | 64.9                | 98.0                               | <b>85.1</b> |
| 6      | ARCH 2527 BGII                     | 75.6    | 83.7     | 63.8    | 94.3       | 66.0                | 94.0                               | <b>79.6</b> |
| 7      | ARCH 2526 BGII                     | 69.3    | 72.0     | 53.3    | 94.3       | 62.3                | 72.0                               | <b>70.5</b> |
| 8      | CCH-501 Bt2                        | 83.7    | 77.0     | 55.2    | 98.0       | 49.7                | 76.0                               | <b>73.3</b> |
| 9      | YASH-2222 BG II                    | 73.4    | 65.3     | 63.8    | 106.3      | 80.3                | 69.0                               | <b>76.4</b> |
| 10     | C9404 BG-II                        | 79.2    | 98.0     | 60.7    | 101.3      | 63.5                | 83.0                               | <b>81.0</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 71.2    | 80.0     | 59.5    | 88.3       | 52.3                | 60.0                               | <b>68.6</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 64.7    | 82.3     | 62.9    | 80.3       | 58.1                | 82.0                               | <b>71.7</b> |
| 13     | 22 SS 44 BG II                     | 82.9    | 82.3     | 62.0    | 90.7       | 48.5                | 62.0                               | <b>71.4</b> |
| 14     | YASH-8888 BG II                    | 62.9    | 88.0     | 59.2    | 104.0      | 52.5                | 73.0                               | <b>73.3</b> |
| 15     | US 752 BGII                        | 84.3    | 75.0     | 56.4    | 114.0      | 56.5                | 69.0                               | <b>75.9</b> |
| 16     | DC5302 BGII                        | 84.0    | 102.3    | 62.9    | 105.7      | 69.1                | 94.0                               | <b>86.3</b> |
| 17     | NCS 2552 Bt2                       | 86.9    | 87.0     | 64.4    | 111.3      | 66.3                | 99.0                               | <b>85.8</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 62.7    | 47.3     | 13.7    | 80.7       | 10.7                | 33.0                               | <b>41.4</b> |
|        | CD @ 5%                            | 8.5     | 18.5     | 12.3    | 22.7       |                     |                                    |             |
|        | CV %                               | 6.7     | 13.7     | 12.7    | 14.4       |                     |                                    |             |

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## Lint Index (g) in Initial Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|------|
| 1      | DACH 91S19 BGII                    | 4.7     | 4.8      | 5.0     | 6.0        | 5.2                 | 5.6                                | 5.2  |
| 2      | DACH 84S48 BGII                    | 5.7     | 4.6      | 5.1     | 6.9        | 5.4                 | 5.0                                | 5.5  |
| 3      | GCH-5508 Bt2                       | 5.5     | 5.5      | 5.4     | 7.0        | 5.5                 | 5.7                                | 5.8  |
| 4      | CCH 527 BGII                       | 7.9     | 5.7      | 5.6     | 7.1        | 5.6                 | 6.5                                | 6.4  |
| 5      | PCH 2997 Bt2                       | 5.7     | 5.3      | 5.7     | 7.0        | 4.6                 | 6.3                                | 5.8  |
| 6      | ARCH 2527 BGII                     | 5.7     | 4.4      | 5.0     | 6.2        | 5.5                 | 5.8                                | 5.4  |
| 7      | ARCH 2526 BGII                     | 5.7     | 6.3      | 6.0     | 7.3        | 6.9                 | 6.5                                | 6.5  |
| 8      | CCH-501 Bt2                        | 7.2     | 5.4      | 5.5     | 7.1        | 6.6                 | 6.2                                | 6.3  |
| 9      | YASH-2222 BG II                    | 2.9     | 4.3      | 4.8     | 6.6        | 5.8                 | 4.4                                | 4.8  |
| 10     | C9404 BG-II                        | 7.3     | 5.0      | 6.1     | 7.4        | 4.7                 | 6.0                                | 6.1  |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 6.9     | 6.4      | 6.9     | 6.9        | 6.3                 | 7.2                                | 6.8  |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 3.9     | 4.9      | 5.7     | 7.8        | 5.9                 | 6.1                                | 5.7  |
| 13     | 22 SS 44 BG II                     | 4.9     | 6.1      | 5.3     | 7.1        | 5.4                 | 6.4                                | 5.9  |
| 14     | YASH-8888 BG II                    | 4.0     | 4.8      | 4.9     | 5.8        | 4.8                 | 5.6                                | 5.0  |
| 15     | US 752 BGII                        | 5.1     | 5.6      | 5.1     | 6.3        | 6.7                 | 6.7                                | 5.9  |
| 16     | DC5302 BGII                        | 7.5     | 5.0      | 5.0     | 6.1        | 5.0                 | 5.9                                | 5.8  |
| 17     | NCS 2552 Bt2                       | 4.2     | 5.7      | 5.6     | 7.0        | 5.2                 | 7.0                                | 5.8  |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 5.1     | 6.0      | 7.6     | 7.3        | 6.0                 | 7.2                                | 6.5  |
|        | CD @ 5%                            | 1.0     | 0.5      |         | 0.7        |                     |                                    |      |
|        | CV %                               | 10.6    | 5.9      |         | 6.2        |                     |                                    |      |

## Seed Index (g) in Initial Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 9.0     | 10.1     | 9.9     | 11.9       | 8.9                 | 11.0                               | <b>10.1</b> |
| 2      | DACH 84S48 BGII                    | 8.6     | 10.2     | 11.4    | 12.6       | 9.4                 | 9.7                                | <b>10.3</b> |
| 3      | GCH-5508 Bt2                       | 10.2    | 12.3     | 11.0    | 12.7       | 10.7                | 12.5                               | <b>11.6</b> |
| 4      | CCH 527 BGII                       | 9.9     | 11.7     | 10.5    | 11.5       | 9.9                 | 11.6                               | <b>10.9</b> |
| 5      | PCH 2997 Bt2                       | 9.1     | 11.9     | 10.5    | 11.5       | 8.6                 | 12.1                               | <b>10.6</b> |
| 6      | ARCH 2527 BGII                     | 9.3     | 9.6      | 10.2    | 11.0       | 9.8                 | 10.4                               | <b>10.1</b> |
| 7      | ARCH 2526 BGII                     | 10.5    | 11.7     | 11.7    | 12.4       | 11.3                | 12.1                               | <b>11.6</b> |
| 8      | CCH-501 Bt2                        | 9.8     | 11.0     | 10.4    | 12.7       | 11.5                | 11.2                               | <b>11.1</b> |
| 9      | YASH-2222 BG II                    | 8.4     | 10.2     | 9.6     | 11.5       | 10.2                | 9.2                                | <b>9.9</b>  |
| 10     | C9404 BG-II                        | 8.4     | 9.8      | 10.1    | 11.6       | 8.2                 | 10.8                               | <b>9.8</b>  |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 10.0    | 11.5     | 11.5    | 13.5       | 10.0                | 11.3                               | <b>11.3</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 10.5    | 11.5     | 12.1    | 13.4       | 10.7                | 14.4                               | <b>12.1</b> |
| 13     | 22 SS 44 BG II                     | 10.4    | 12.4     | 10.1    | 12.5       | 9.8                 | 11.9                               | <b>11.2</b> |
| 14     | YASH-8888 BG II                    | 8.0     | 9.1      | 8.9     | 10.7       | 8.2                 | 9.9                                | <b>9.1</b>  |
| 15     | US 752 BGII                        | 9.6     | 11.3     | 11.0    | 12.5       | 10.6                | 11.7                               | <b>11.1</b> |
| 16     | DC5302 BGII                        | 9.5     | 9.4      | 9.0     | 12.0       | 8.6                 | 10.6                               | <b>9.9</b>  |
| 17     | NCS 2552 Bt2                       | 9.8     | 10.2     | 9.2     | 11.0       | 9.2                 | 10.5                               | <b>10.0</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 10.3    | 10.9     | 11.6    | 12.0       | 10.9                | 11.7                               | <b>11.2</b> |
|        | CD @ 5%                            | 0.7     | 1.1      |         | 1.0        |                     |                                    |             |
|        | CV %                               | 5.0     | 6.4      |         | 5.6        |                     |                                    |             |

**Ginning outturn (%) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 34.1    | 32.0     | 33.4    | 33.7       | 36.8                | 33.9                               | <b>34.0</b> |
| 2      | DACH 84S48 BGII                    | 40.0    | 31.1     | 31.0    | 35.5       | 36.2                | 34.0                               | <b>34.6</b> |
| 3      | GCH-5508 Bt2                       | 34.8    | 30.7     | 33.0    | 35.7       | 34.0                | 31.5                               | <b>33.3</b> |
| 4      | CCH 527 BGII                       | 42.0    | 32.9     | 34.6    | 38.1       | 36.3                | 35.8                               | <b>36.6</b> |
| 5      | PCH 2997 Bt2                       | 38.0    | 30.7     | 35.1    | 37.7       | 34.9                | 34.2                               | <b>35.1</b> |
| 6      | ARCH 2527 BGII                     | 39.3    | 31.4     | 33.0    | 36.0       | 36.1                | 35.6                               | <b>35.2</b> |
| 7      | ARCH 2526 BGII                     | 36.6    | 34.8     | 34.0    | 37.1       | 38.0                | 34.8                               | <b>35.9</b> |
| 8      | CCH-501 Bt2                        | 41.9    | 32.9     | 34.4    | 35.9       | 36.6                | 35.5                               | <b>36.2</b> |
| 9      | YASH-2222 BG II                    | 27.3    | 29.5     | 33.3    | 36.5       | 36.1                | 32.4                               | <b>32.5</b> |
| 10     | C9404 BG-II                        | 43.0    | 33.9     | 37.8    | 38.9       | 36.2                | 35.8                               | <b>37.6</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 39.2    | 35.7     | 37.6    | 34.0       | 38.7                | 38.8                               | <b>37.3</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 27.3    | 29.9     | 31.9    | 36.9       | 35.5                | 29.6                               | <b>31.9</b> |
| 13     | 22 SS 44 BG II                     | 33.4    | 33.0     | 34.3    | 36.4       | 35.4                | 34.9                               | <b>34.6</b> |
| 14     | YASH-8888 BG II                    | 33.3    | 34.5     | 35.5    | 35.0       | 36.8                | 36.2                               | <b>35.2</b> |
| 15     | US 752 BGII                        | 34.8    | 33.1     | 31.9    | 33.6       | 38.6                | 36.3                               | <b>34.7</b> |
| 16     | DC5302 BGII                        | 41.6    | 34.6     | 35.7    | 33.7       | 36.5                | 35.9                               | <b>36.3</b> |
| 17     | NCS 2552 Bt2                       | 29.8    | 35.9     | 37.8    | 38.9       | 36.3                | 39.9                               | <b>36.4</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 33.8    | 35.3     | 39.6    | 37.7       | 35.7                | 38.0                               | <b>36.7</b> |
|        | CD @ 5%                            | 2.5     | 1.5      |         | 3.1        |                     |                                    |             |
|        | CV %                               | 4.2     | 2.8      |         | 5.3        |                     |                                    |             |



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**Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 26.7    | 27.0     | 29.5    | 28.3       | 25.8                | 30.0                               | <b>27.9</b> |
| 2      | DACH 84S48 BGII                    | 25.4    | 24.8     | 28.7    | 29.0       | 24.4                | 26.5                               | <b>26.5</b> |
| 3      | GCH-5508 Bt2                       | 28.0    | 28.2     | 31.5    | 31.4       | 28.2                | 28.7                               | <b>29.3</b> |
| 4      | CCH 527 BGII                       | 27.5    | 28.5     | 29.0    | 29.8       | 26.8                | 28.5                               | <b>28.4</b> |
| 5      | PCH 2997 Bt2                       | 29.6    | 30.6     | 31.0    | 32.2       | 29.5                | 31.0                               | <b>30.7</b> |
| 6      | ARCH 2527 BGII                     | 27.0    | 26.8     | 29.8    | 29.5       | 26.4                | 29.0                               | <b>28.1</b> |
| 7      | ARCH 2526 BGII                     | 28.1    | 28.2     | 30.4    | 31.2       | 27.8                | 30.6                               | <b>29.4</b> |
| 8      | CCH-501 Bt2                        | 28.2    | 28.1     | 29.6    | 30.2       | 27.4                | 28.5                               | <b>28.7</b> |
| 9      | YASH-2222 BG II                    | 26.3    | 27.3     | 28.3    | 28.4       | 25.8                | 26.4                               | <b>27.1</b> |
| 10     | C9404 BG-II                        | 28.2    | 26.9     | 29.8    | 30.0       | 27.0                | 28.6                               | <b>28.4</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 26.3    | 27.7     | 29.7    | 29.0       | 25.9                | 28.0                               | <b>27.8</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 30.2    | 29.9     | 34.0    | 33.9       | 29.3                | 33.4                               | <b>31.8</b> |
| 13     | 22 SS 44 BG II                     | 29.5    | 28.8     | 31.1    | 31.3       | 28.8                | 29.8                               | <b>29.9</b> |
| 14     | YASH-8888 BG II                    | 26.8    | 26.2     | 29.5    | 29.1       | 25.8                | 26.6                               | <b>27.3</b> |
| 15     | US 752 BGII                        | 26.4    | 27.4     | 28.4    | 28.5       | 26.0                | 26.4                               | <b>27.2</b> |
| 16     | DC5302 BGII                        | 28.0    | 27.1     | 28.6    | 30.3       | 26.5                | 29.6                               | <b>28.4</b> |
| 17     | NCS 2552 Bt2                       | 26.2    | 27.1     | 29.6    | 30.1       | 26.2                | 26.9                               | <b>27.7</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 27.6    | 27.4     | 29.0    | 28.9       | 25.7                | 28.1                               | <b>27.8</b> |

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**Uniformity index under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 83.0    | 83.0     | 84.0    | 84.0       | 82.6                | 85.0                               | <b>83.6</b> |
| 2      | DACH 84S48 BGII                    | 83.0    | 81.0     | 84.0    | 85.0       | 81.9                | 83.0                               | <b>83.0</b> |
| 3      | GCH-5508 Bt2                       | 84.0    | 83.0     | 86.0    | 85.0       | 82.7                | 83.0                               | <b>84.0</b> |
| 4      | CCH 527 BGII                       | 83.0    | 83.0     | 86.0    | 86.0       | 83.2                | 85.0                               | <b>84.4</b> |
| 5      | PCH 2997 Bt2                       | 83.0    | 83.0     | 85.0    | 85.0       | 82.6                | 84.0                               | <b>83.8</b> |
| 6      | ARCH 2527 BGII                     | 83.0    | 81.0     | 84.0    | 85.0       | 82.8                | 85.0                               | <b>83.5</b> |
| 7      | ARCH 2526 BGII                     | 84.0    | 84.0     | 87.0    | 87.0       | 83.8                | 86.0                               | <b>85.3</b> |
| 8      | CCH-501 Bt2                        | 84.0    | 82.0     | 86.0    | 84.0       | 83.4                | 85.0                               | <b>84.1</b> |
| 9      | YASH-2222 BG II                    | 83.0    | 83.0     | 86.0    | 85.0       | 82.1                | 85.0                               | <b>84.0</b> |
| 10     | C9404 BG-II                        | 84.0    | 83.0     | 86.0    | 87.0       | 83.0                | 85.0                               | <b>84.7</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 82.0    | 83.0     | 85.0    | 86.0       | 83.3                | 85.0                               | <b>84.1</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 83.0    | 84.0     | 87.0    | 86.0       | 82.2                | 84.0                               | <b>84.4</b> |
| 13     | 22 SS 44 BG II                     | 84.0    | 85.0     | 85.0    | 86.0       | 82.8                | 83.0                               | <b>84.3</b> |
| 14     | YASH-8888 BG II                    | 83.0    | 83.0     | 86.0    | 85.0       | 82.0                | 83.0                               | <b>83.7</b> |
| 15     | US 752 BGII                        | 84.0    | 83.0     | 85.0    | 86.0       | 83.2                | 83.0                               | <b>84.0</b> |
| 16     | DC5302 BGII                        | 83.0    | 84.0     | 85.0    | 86.0       | 82.6                | 86.0                               | <b>84.4</b> |
| 17     | NCS 2552 Bt2                       | 82.0    | 83.0     | 86.0    | 86.0       | 82.9                | 84.0                               | <b>84.0</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 85.0    | 84.0     | 85.0    | 86.0       | 82.6                | 86.0                               | <b>84.8</b> |

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**Micronaire under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean       |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|------------|
| 1      | DACH 91S19 BGII                    | 4.1     | 4.8      | 4.3     | 5.2        | 5.2                 | 4.1                                | <b>4.6</b> |
| 2      | DACH 84S48 BGII                    | 4.6     | 4.7      | 5.0     | 5.5        | 5.1                 | 4.3                                | <b>4.9</b> |
| 3      | GCH-5508 Bt2                       | 3.8     | 3.9      | 4.0     | 4.6        | 4.7                 | 4.3                                | <b>4.2</b> |
| 4      | CCH 527 BGII                       | 4.1     | 4.3      | 4.3     | 4.7        | 4.7                 | 4.2                                | <b>4.4</b> |
| 5      | PCH 2997 Bt2                       | 3.9     | 4.2      | 4.0     | 5.2        | 4.7                 | 4.0                                | <b>4.3</b> |
| 6      | ARCH 2527 BGII                     | 4.3     | 4.7      | 4.5     | 4.5        | 5.2                 | 4.6                                | <b>4.6</b> |
| 7      | ARCH 2526 BGII                     | 3.9     | 4.9      | 4.8     | 4.3        | 4.8                 | 3.9                                | <b>4.4</b> |
| 8      | CCH-501 Bt2                        | 4.0     | 4.4      | 4.1     | 4.6        | 4.6                 | 4.1                                | <b>4.3</b> |
| 9      | YASH-2222 BG II                    | 4.4     | 4.3      | 4.2     | 5.4        | 4.6                 | 4.5                                | <b>4.6</b> |
| 10     | C9404 BG-II                        | 4.1     | 4.5      | 3.9     | 5.0        | 4.6                 | 3.9                                | <b>4.3</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 4.3     | 4.6      | 4.7     | 5.3        | 5.0                 | 4.7                                | <b>4.8</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 4.1     | 4.4      | 3.8     | 4.6        | 4.3                 | 4.1                                | <b>4.2</b> |
| 13     | 22 SS 44 BG II                     | 4.0     | 4.2      | 3.4     | 4.6        | 4.8                 | 3.8                                | <b>4.1</b> |
| 14     | YASH-8888 BG II                    | 3.9     | 4.2      | 3.9     | 4.6        | 4.4                 | 3.9                                | <b>4.2</b> |
| 15     | US 752 BGII                        | 4.3     | 4.3      | 5.2     | 4.9        | 5.1                 | 5.0                                | <b>4.8</b> |
| 16     | DC5302 BGII                        | 4.1     | 5.0      | 4.1     | 4.5        | 4.5                 | 4.1                                | <b>4.4</b> |
| 17     | NCS 2552 Bt2                       | 4.2     | 4.8      | 4.2     | 4.8        | 5.3                 | 4.4                                | <b>4.6</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 4.5     | 4.9      | 4.8     | 5.4        | 5.0                 | 4.8                                | <b>4.9</b> |

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**Tenacity under HVI Mode in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 28.6    | 29.3     | 31.0    | 28.7       | 31.3                | 30.8                               | <b>30.0</b> |
| 2      | DACH 84S48 BGII                    | 27.4    | 26.3     | 26.7    | 29.6       | 28.9                | 26.8                               | <b>27.6</b> |
| 3      | GCH-5508 Bt2                       | 29.0    | 30.4     | 28.1    | 30.3       | 29.0                | 27.1                               | <b>29.0</b> |
| 4      | CCH 527 BGII                       | 29.6    | 29.9     | 30.7    | 29.9       | 29.6                | 30.5                               | <b>30.0</b> |
| 5      | PCH 2997 Bt2                       | 31.3    | 32.2     | 28.7    | 31.1       | 30.7                | 30.6                               | <b>30.8</b> |
| 6      | ARCH 2527 BGII                     | 28.5    | 28.7     | 31.2    | 29.5       | 31.7                | 29.8                               | <b>29.9</b> |
| 7      | ARCH 2526 BGII                     | 30.4    | 30.1     | 31.4    | 30.2       | 32.0                | 30.0                               | <b>30.7</b> |
| 8      | CCH-501 Bt2                        | 29.5    | 30.4     | 28.9    | 31.8       | 30.3                | 30.2                               | <b>30.2</b> |
| 9      | YASH-2222 BG II                    | 28.3    | 29.1     | 28.5    | 28.4       | 30.3                | 28.8                               | <b>28.9</b> |
| 10     | C9404 BG-II                        | 30.5    | 29.1     | 30.7    | 29.6       | 30.6                | 26.3                               | <b>29.5</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 28.2    | 29.5     | 29.1    | 29.9       | 29.7                | 28.8                               | <b>29.2</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 31.5    | 31.2     | 32.1    | 30.1       | 29.8                | 31.4                               | <b>31.0</b> |
| 13     | 22 SS 44 BG II                     | 29.6    | 31.2     | 30.0    | 29.6       | 29.8                | 30.4                               | <b>30.1</b> |
| 14     | YASH-8888 BG II                    | 28.9    | 28.1     | 29.6    | 31.0       | 29.5                | 27.3                               | <b>29.1</b> |
| 15     | US 752 BGII                        | 28.2    | 29.5     | 27.2    | 28.8       | 27.5                | 25.8                               | <b>27.8</b> |
| 16     | DC5302 BGII                        | 29.6    | 29.4     | 29.2    | 31.2       | 28.6                | 28.7                               | <b>29.5</b> |
| 17     | NCS 2552 Bt2                       | 27.6    | 29.3     | 28.0    | 30.4       | 28.8                | 28.2                               | <b>28.7</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 30.1    | 28.6     | 30.3    | 29.8       | 29.4                | 29.0                               | <b>29.5</b> |

## Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean         |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|--------------|
| 1      | DACH 91S19 BGII                    | 19.72   | 23.32    | 9.33    | 14.34      | 14.95               | 15.28                              | <b>16.16</b> |
| 2      | DACH 84S48 BGII                    | 18.33   | 23.37    | 8.32    | 12.52      | 14.58               | 11.88                              | <b>14.83</b> |
| 3      | GCH-5508 Bt2                       | 19.03   | 23.25    | 6.80    | 14.74      | 9.62                | 15.64                              | <b>14.85</b> |
| 4      | CCH 527 BGII                       | 22.51   | 24.66    | 6.38    | 12.01      | 7.76                | 15.33                              | <b>14.78</b> |
| 5      | PCH 2997 Bt2                       | 27.32   | 24.06    | 11.07   | 15.66      | 10.72               | 19.08                              | <b>17.99</b> |
| 6      | ARCH 2527 BGII                     | 22.60   | 23.74    | 7.71    | 14.02      | 14.49               | 13.07                              | <b>15.94</b> |
| 7      | ARCH 2526 BGII                     | 20.74   | 25.91    | 7.79    | 15.23      | 15.26               | 14.97                              | <b>16.65</b> |
| 8      | CCH-501 Bt2                        | 21.50   | 23.55    | 6.47    | 17.02      | 9.53                | 13.12                              | <b>15.20</b> |
| 9      | YASH-2222 BG II                    | 23.29   | 20.99    | 14.14   | 17.55      | 14.18               | 13.58                              | <b>17.29</b> |
| 10     | C9404 BG-II                        | 18.26   | 26.80    | 12.82   | 21.76      | 8.77                | 16.28                              | <b>17.45</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 18.00   | 19.10    | 8.83    | 14.52      | 7.83                | 9.21                               | <b>12.92</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 17.89   | 21.34    | 9.48    | 12.21      | 8.11                | 16.46                              | <b>14.25</b> |
| 13     | 22 SS 44 BG II                     | 20.27   | 26.20    | 11.63   | 16.49      | 9.75                | 9.36                               | <b>15.62</b> |
| 14     | YASH-8888 BG II                    | 17.04   | 19.86    | 6.71    | 13.65      | 11.16               | 11.68                              | <b>13.35</b> |
| 15     | US 752 BGII                        | 23.90   | 27.64    | 4.97    | 18.15      | 12.05               | 12.24                              | <b>16.49</b> |
| 16     | DC5302 BGII                        | 21.32   | 24.24    | 16.81   | 20.15      | 10.56               | 21.71                              | <b>19.13</b> |
| 17     | NCS 2552 Bt2                       | 18.61   | 28.36    | 11.37   | 23.37      | 8.96                | 19.42                              | <b>18.35</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 13.74   | 15.51    | 4.54    | 8.25       | 6.37                | 8.23                               | <b>9.44</b>  |
|        | CD @ 5%                            | 2.00    | 4.59     | 2.25    | 3.42       |                     |                                    |              |
|        | CV %                               | 6.10    | 11.79    | 15.00   | 13.63      |                     |                                    |              |

## Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal<br>(Ankur) | Parigi<br>(PrabhatAgri<br>Biotech) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|---------------------|------------------------------------|-------------|
| 1      | DACH 91S19 BGII                    | 2.43    | 3.62     | 10.86   | 2.08       | 0.55                | 14.71                              | <b>5.71</b> |
| 2      | DACH 84S48 BGII                    | 1.85    | 4.36     | 8.63    | 2.74       | 0.31                | 8.18                               | <b>4.35</b> |
| 3      | GCH-5508 Bt2                       | 2.41    | 4.96     | 7.99    | 1.51       | 1.16                | 9.52                               | <b>4.59</b> |
| 4      | CCH 527 BGII                       | 2.00    | 4.05     | 10.60   | 1.49       | 2.00                | 9.16                               | <b>4.88</b> |
| 5      | PCH 2997 Bt2                       | 2.26    | 3.06     | 10.11   | 1.39       | 0.63                | 11.83                              | <b>4.88</b> |
| 6      | ARCH 2527 BGII                     | 1.95    | 4.28     | 12.07   | 1.68       | 0.62                | 12.04                              | <b>5.44</b> |
| 7      | ARCH 2526 BGII                     | 2.17    | 2.69     | 8.56    | 1.59       | 0.87                | 9.10                               | <b>4.16</b> |
| 8      | CCH-501 Bt2                        | 2.65    | 2.66     | 9.76    | 2.57       | 0.92                | 7.72                               | <b>4.38</b> |
| 9      | YASH-2222 BG II                    | 2.28    | 2.06     | 7.00    | 0.97       | 0.85                | 6.48                               | <b>3.27</b> |
| 10     | C9404 BG-II                        | 2.33    | 2.77     | 8.11    | 2.05       | 1.28                | 8.13                               | <b>4.11</b> |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 2.17    | 3.18     | 8.38    | 0.99       | 0.56                | 8.28                               | <b>3.93</b> |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 1.89    | 6.91     | 10.15   | 1.22       | 1.27                | 9.47                               | <b>5.15</b> |
| 13     | 22 SS 44 BG II                     | 2.72    | 2.48     | 9.97    | 2.34       | 1.39                | 8.85                               | <b>4.63</b> |
| 14     | YASH-8888 BG II                    | 1.95    | 4.77     | 7.89    | 1.50       | 2.42                | 8.95                               | <b>4.58</b> |
| 15     | US 752 BGII                        | 2.35    | 4.69     | 7.74    | 1.71       | 1.06                | 8.18                               | <b>4.29</b> |
| 16     | DC5302 BGII                        | 2.06    | 3.70     | 6.87    | 2.21       | 2.19                | 10.39                              | <b>4.57</b> |
| 17     | NCS 2552 Bt2                       | 1.82    | 3.14     | 7.91    | 1.77       | 1.29                | 10.56                              | <b>4.42</b> |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 1.31    | 2.31     | 2.92    | 0.87       | 0.41                | 5.81                               | <b>2.27</b> |
|        | CD @ 5%                            | 0.30    | 0.83     | 1.97    | 0.32       |                     |                                    |             |
|        | CV %                               | 8.53    | 13.75    | 13.80   | 11.54      |                     |                                    |             |

**Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Warangal (Ankur) | Parigi (PrabhatAgri Biotech) | Mean         | Rank | % Inc over best check |
|--------|------------------------------------|---------|----------|---------|------------|------------------|------------------------------|--------------|------|-----------------------|
| 1      | DACH 91S19 BGII                    | 22.15   | 26.94    | 20.19   | 16.42      | 15.50            | 29.99                        | <b>21.87</b> | 4    | 12.7                  |
| 2      | DACH 84S48 BGII                    | 20.17   | 27.73    | 16.95   | 15.26      | 14.89            | 20.06                        | <b>19.18</b> | 15   | -1.2                  |
| 3      | GCH-5508 Bt2                       | 21.45   | 28.21    | 14.79   | 16.25      | 10.78            | 25.15                        | <b>19.44</b> | 13   | 0.2                   |
| 4      | CCH 527 BGII                       | 24.51   | 28.71    | 16.98   | 13.50      | 9.75             | 24.49                        | <b>19.66</b> | 11   | 1.3                   |
| 5      | PCH 2997 Bt2                       | 29.58   | 27.12    | 21.18   | 17.05      | 11.35            | 30.92                        | <b>22.87</b> | 2    | 17.9                  |
| 6      | ARCH 2527 BGII                     | 24.55   | 28.02    | 19.79   | 15.70      | 15.11            | 25.10                        | <b>21.38</b> | 6    | 10.2                  |
| 7      | ARCH 2526 BGII                     | 22.91   | 28.59    | 16.35   | 16.82      | 16.13            | 24.07                        | <b>20.81</b> | 7    | 7.3                   |
| 8      | CCH-501 Bt2                        | 24.16   | 26.21    | 16.22   | 19.59      | 10.44            | 20.83                        | <b>19.58</b> | 12   | 0.9                   |
| 9      | YASH-2222 BG II                    | 25.56   | 23.05    | 21.14   | 18.52      | 15.04            | 20.06                        | <b>20.56</b> | 9    | 6.0                   |
| 10     | C9404 BG-II                        | 20.58   | 29.57    | 20.93   | 23.81      | 10.04            | 24.40                        | <b>21.56</b> | 5    | 11.1                  |
| 11     | <b>SP7679 BGII (ZC 1)</b>          | 20.17   | 22.28    | 17.21   | 15.51      | 8.38             | 17.49                        | <b>16.84</b> | 17   | -13.2                 |
| 12     | <b>Daftari 615 BG II (ZC 2)</b>    | 19.78   | 28.25    | 19.64   | 13.43      | 9.37             | 25.93                        | <b>19.40</b> | 14   | 0.0                   |
| 13     | 22 SS 44 BG II                     | 22.98   | 28.68    | 21.60   | 18.83      | 11.14            | 18.21                        | <b>20.24</b> | 10   | 4.3                   |
| 14     | YASH-8888 BG II                    | 19.00   | 24.63    | 14.60   | 15.15      | 13.58            | 20.63                        | <b>17.93</b> | 16   | -7.6                  |
| 15     | US 752 BGII                        | 26.25   | 32.34    | 12.72   | 19.86      | 13.11            | 20.42                        | <b>20.78</b> | 8    | 7.1                   |
| 16     | DC5302 BGII                        | 23.38   | 27.94    | 23.68   | 22.36      | 12.75            | 32.10                        | <b>23.70</b> | 1    | 22.2                  |
| 17     | NCS 2552 Bt2                       | 20.43   | 31.50    | 19.27   | 25.14      | 10.24            | 29.97                        | <b>22.76</b> | 3    | 17.3                  |
| 18     | <b>SP7679 BGII (ZC 1) (normal)</b> | 15.05   | 17.83    | 7.46    | 9.12       | 6.78             | 14.04                        | <b>11.71</b> | 18   | -39.6                 |
|        | CD @ 5%                            | 2.00    | 4.75     | 2.01    | 3.42       | 2.66             |                              |              |      |                       |
|        | CV %                               | 5.60    | 10.57    | 6.95    | 12.28      | 13.33            |                              |              |      |                       |

### Evaluation under Protected Condition for Insect pests Reaction to Insect Pest

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Aphid**

| Name of Entry               | Aphid (Average of 3 leaves/plant) |      |    |      |       |              | Remark      |
|-----------------------------|-----------------------------------|------|----|------|-------|--------------|-------------|
|                             | NA                                | DH   | PE | AD   | MU    | Mean         |             |
| DACH 91S19 BGII             | -                                 | 1.76 | -  | 3.69 | 13.20 | <b>6.22</b>  | <b>BETL</b> |
| DACH 84S48 BGII             | -                                 | 3.47 | -  | 4.35 | 22.69 | <b>10.17</b> | <b>AETL</b> |
| GCH-5508 Bt2                | -                                 | 1.61 | -  | 3.80 | 13.89 | <b>6.43</b>  | <b>BETL</b> |
| CCH 527 BGII                | -                                 | 1.82 | -  | 4.17 | 22.51 | <b>9.50</b>  | <b>BETL</b> |
| PCH 2997 Bt2                | -                                 | 2.11 | -  | 3.47 | 31.22 | <b>12.27</b> | <b>AETL</b> |
| ARCH 2527 BGII              | -                                 | 2.51 | -  | 3.52 | 8.48  | <b>4.84</b>  | <b>BETL</b> |
| ARCH 2526 BGII              | -                                 | 1.49 | -  | 2.90 | 16.00 | <b>6.80</b>  | <b>BETL</b> |
| CCH-501 Bt2                 | -                                 | 1.96 | -  | 2.50 | 9.58  | <b>4.68</b>  | <b>BETL</b> |
| YASH-2222 BG II             | -                                 | 3.20 | -  | 2.15 | 16.41 | <b>7.25</b>  | <b>BETL</b> |
| C9404 BG-II                 | -                                 | 3.24 | -  | 2.52 | 18.52 | <b>8.09</b>  | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | -                                 | 1.02 | -  | 2.79 | 8.89  | <b>4.23</b>  | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | -                                 | 1.87 | -  | 3.15 | 7.06  | <b>4.03</b>  | <b>BETL</b> |
| 22 SS 44 BG II              | -                                 | 1.82 | -  | 2.28 | 27.00 | <b>10.37</b> | <b>AETL</b> |
| YASH-8888 BG II             | -                                 | 2.31 | -  | 2.28 | 13.84 | <b>6.14</b>  | <b>BETL</b> |
| US 752 BGII                 | -                                 | 2.51 | -  | 3.10 | 10.13 | <b>5.25</b>  | <b>BETL</b> |
| DC5302 BGII                 | -                                 | 2.00 | -  | 2.31 | 12.65 | <b>5.65</b>  | <b>BETL</b> |
| NCS 2552 Bt2                | -                                 | 1.56 | -  | 2.12 | 5.32  | <b>3.00</b>  | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                 | -    | -  | 3.88 | 25.44 | <b>14.66</b> | <b>AETL</b> |

**NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole**





**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions –Leafhopper**

| Name of Entry               | Leafhopper (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|-----------------------------|----------------------------------------|------|------|------|------|-------------|--------|
|                             | NA                                     | DH   | PE   | AD   | MU   | Mean        |        |
| DACH 91S19 BGII             | -                                      | 0.07 | 3.00 | 0.70 | 2.80 | <b>1.64</b> | BETL   |
| DACH 84S48 BGII             | -                                      | 0.22 | 2.00 | 0.94 | 1.23 | <b>1.10</b> | BETL   |
| GCH-5508 Bt2                | -                                      | 0.13 | 3.00 | 0.51 | 1.01 | <b>1.16</b> | BETL   |
| CCH 527 BGII                | -                                      | 0.24 | 3.33 | 0.56 | 3.16 | <b>1.82</b> | BETL   |
| PCH 2997 Bt2                | -                                      | 0.09 | 2.67 | 0.24 | 2.68 | <b>1.42</b> | BETL   |
| ARCH 2527 BGII              | -                                      | 0.07 | 4.33 | 0.29 | 0.67 | <b>1.34</b> | BETL   |
| ARCH 2526 BGII              | -                                      | 0.04 | 3.67 | 0.58 | 0.79 | <b>1.27</b> | BETL   |
| CCH-501 Bt2                 | -                                      | 0.22 | 3.00 | 1.03 | 1.12 | <b>1.34</b> | BETL   |
| YASH-2222 BG II             | -                                      | 0.09 | 3.67 | 0.23 | 0.56 | <b>1.14</b> | BETL   |
| C9404 BG-II                 | -                                      | 0.22 | 5.67 | 0.28 | 0.90 | <b>1.77</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                      | 0.33 | 4.00 | 0.55 | 0.45 | <b>1.33</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                      | 0.27 | 6.33 | 0.17 | 0.15 | <b>1.73</b> | BETL   |
| 22 SS 44 BG II              | -                                      | 0.31 | 4.33 | 0.26 | 2.81 | <b>1.93</b> | BETL   |
| YASH-8888 BG II             | -                                      | 0.51 | 5.00 | 0.13 | 0.57 | <b>1.55</b> | BETL   |
| US 752 BGII                 | -                                      | 0.29 | 5.00 | 0.22 | 0.45 | <b>1.49</b> | BETL   |
| DC5302 BGII                 | -                                      | 0.33 | 5.00 | 0.45 | 1.58 | <b>1.84</b> | BETL   |
| NCS 2552 Bt2                | -                                      | 0.20 | 5.33 | 0.24 | 0.22 | <b>1.50</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                      | -    | 4.67 | 1.97 | 0.45 | <b>2.36</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – JIG**

| Name of Entry               | JIG/plant |    |    |    |    |      | Remark |
|-----------------------------|-----------|----|----|----|----|------|--------|
|                             | NA        | DH | PE | AD | MU | Mean |        |
| DACH 91S19 BGII             | -         | I  | -  | -  | -  | I    |        |
| DACH 84S48 BGII             | -         | I  | -  | -  | -  | I    |        |
| GCH-5508 Bt2                | -         | I  | -  | -  | -  | I    |        |
| CCH 527 BGII                | -         | I  | -  | -  | -  | I    |        |
| PCH 2997 Bt2                | -         | I  | -  | -  | -  | I    |        |
| ARCH 2527 BGII              | -         | I  | -  | -  | -  | I    |        |
| ARCH 2526 BGII              | -         | I  | -  | -  | -  | I    |        |
| CCH-501 Bt2                 | -         | I  | -  | -  | -  | I    |        |
| YASH-2222 BG II             | -         | I  | -  | -  | -  | I    |        |
| C9404 BG-II                 | -         | I  | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1)          | -         | I  | -  | -  | -  | I    |        |
| Daftari 615 BG II (ZC 2)    | -         | I  | -  | -  | -  | I    |        |
| 22 SS 44 BG II              | -         | I  | -  | -  | -  | I    |        |
| YASH-8888 BG II             | -         | I  | -  | -  | -  | I    |        |
| US 752 BGII                 | -         | I  | -  | -  | -  | I    |        |
| DC5302 BGII                 | -         | I  | -  | -  | -  | I    |        |
| NCS 2552 Bt2                | -         | I  | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1) (normal) | -         | -  | -  | -  | -  | I    |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Thrips**

| Name of Entry               | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|-----------------------------|------------------------------------|------|------|------|------|-------------|--------|
|                             | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| DACH 91S19 BGII             | -                                  | 3.58 | 0.00 | 1.03 | 0.57 | <b>1.29</b> | BETL   |
| DACH 84S48 BGII             | -                                  | 3.52 | 0.67 | 0.30 | 0.13 | <b>1.15</b> | BETL   |
| GCH-5508 Bt2                | -                                  | 3.18 | 0.00 | 1.47 | 0.08 | <b>1.18</b> | BETL   |
| CCH 527 BGII                | -                                  | 3.38 | 0.00 | 2.17 | 0.03 | <b>1.39</b> | BETL   |
| PCH 2997 Bt2                | -                                  | 3.45 | 0.00 | 1.47 | 0.03 | <b>1.24</b> | BETL   |
| ARCH 2527 BGII              | -                                  | 3.92 | 0.00 | 1.43 | 0.00 | <b>1.34</b> | BETL   |
| ARCH 2526 BGII              | -                                  | 3.52 | 0.00 | 1.10 | 0.41 | <b>1.26</b> | BETL   |
| CCH-501 Bt2                 | -                                  | 2.25 | 0.33 | 0.63 | 0.23 | <b>0.86</b> | BETL   |
| YASH-2222 BG II             | -                                  | 3.25 | 0.00 | 1.37 | 0.20 | <b>1.21</b> | BETL   |
| C9404 BG-II                 | -                                  | 3.32 | 0.00 | 1.43 | 0.08 | <b>1.21</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                  | 4.45 | 0.00 | 1.63 | 0.00 | <b>1.52</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                  | 2.85 | 0.00 | 1.40 | 0.05 | <b>1.08</b> | BETL   |
| 22 SS 44 BG II              | -                                  | 4.12 | 0.00 | 1.87 | 0.00 | <b>1.50</b> | BETL   |
| YASH-8888 BG II             | -                                  | 3.30 | 0.00 | 1.37 | 0.10 | <b>1.19</b> | BETL   |
| US 752 BGII                 | -                                  | 3.58 | 0.00 | 1.67 | 0.03 | <b>1.32</b> | BETL   |
| DC5302 BGII                 | -                                  | 2.98 | 0.00 | 1.40 | 0.28 | <b>1.17</b> | BETL   |
| NCS 2552 Bt2                | -                                  | 2.52 | 0.00 | 1.97 | 0.00 | <b>1.12</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                  | -    | 0.00 | 2.75 | 0.05 | <b>0.93</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry               | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|-----------------------------|--------------------------------------|------|------|------|------|-------------|--------|
|                             | NA                                   | DH   | PE   | AD   | MU   | Mean        |        |
| DACH 91S19 BGII             | -                                    | 0.07 | 0.00 | 0.20 | 2.63 | <b>0.72</b> | BETL   |
| DACH 84S48 BGII             | -                                    | 0.11 | 0.00 | 0.17 | 1.85 | <b>0.53</b> | BETL   |
| GCH-5508 Bt2                | -                                    | 0.18 | 0.00 | 0.27 | 1.35 | <b>0.45</b> | BETL   |
| CCH 527 BGII                | -                                    | 0.00 | 0.33 | 0.50 | 2.27 | <b>0.78</b> | BETL   |
| PCH 2997 Bt2                | -                                    | 0.09 | 0.00 | 0.27 | 1.95 | <b>0.58</b> | BETL   |
| ARCH 2527 BGII              | -                                    | 0.00 | 0.00 | 0.37 | 1.07 | <b>0.36</b> | BETL   |
| ARCH 2526 BGII              | -                                    | 0.04 | 0.00 | 0.23 | 0.68 | <b>0.24</b> | BETL   |
| CCH-501 Bt2                 | -                                    | 0.09 | 0.67 | 0.27 | 1.03 | <b>0.51</b> | BETL   |
| YASH-2222 BG II             | -                                    | 0.00 | 0.33 | 0.30 | 1.03 | <b>0.42</b> | BETL   |
| C9404 BG-II                 | -                                    | 0.13 | 1.00 | 0.20 | 1.10 | <b>0.61</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                    | 0.00 | 0.00 | 0.43 | 0.71 | <b>0.29</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                    | 0.00 | 1.00 | 0.23 | 0.43 | <b>0.41</b> | BETL   |
| 22 SS 44 BG II              | -                                    | 0.07 | 0.33 | 0.43 | 2.59 | <b>0.86</b> | BETL   |
| YASH-8888 BG II             | -                                    | 0.09 | 1.00 | 0.40 | 0.39 | <b>0.47</b> | BETL   |
| US 752 BGII                 | -                                    | 0.02 | 0.00 | 0.27 | 1.88 | <b>0.54</b> | BETL   |
| DC5302 BGII                 | -                                    | 0.16 | 0.00 | 0.30 | 1.81 | <b>0.57</b> | BETL   |
| NCS 2552 Bt2                | -                                    | 0.02 | 0.33 | 0.30 | 0.75 | <b>0.35</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                    | -    | 0.67 | 0.30 | 0.71 | <b>0.56</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry               | Natural Enemies (No./plant) |      |      |    |    |             | Remark |
|-----------------------------|-----------------------------|------|------|----|----|-------------|--------|
|                             | NA                          | DH   | PE   | AD | MU | Mean        |        |
| DACH 91S19 BGII             | -                           | 0.40 | 0.00 | -  | -  | <b>0.20</b> |        |
| DACH 84S48 BGII             | -                           | 0.40 | 0.00 | -  | -  | <b>0.20</b> |        |
| GCH-5508 Bt2                | -                           | 0.22 | 0.00 | -  | -  | <b>0.11</b> |        |
| CCH 527 BGII                | -                           | 0.34 | 0.00 | -  | -  | <b>0.17</b> |        |
| PCH 2997 Bt2                | -                           | 0.50 | 0.00 | -  | -  | <b>0.25</b> |        |
| ARCH 2527 BGII              | -                           | 0.50 | 0.00 | -  | -  | <b>0.25</b> |        |
| ARCH 2526 BGII              | -                           | 0.10 | 0.00 | -  | -  | <b>0.05</b> |        |
| CCH-501 Bt2                 | -                           | 0.40 | 0.00 | -  | -  | <b>0.20</b> |        |
| YASH-2222 BG II             | -                           | 0.74 | 0.00 | -  | -  | <b>0.37</b> |        |
| C9404 BG-II                 | -                           | 0.94 | 0.00 | -  | -  | <b>0.47</b> |        |
| SP7679 BGII (ZC 1)          | -                           | 0.30 | 0.00 | -  | -  | <b>0.15</b> |        |
| Daftari 615 BG II (ZC 2)    | -                           | 0.78 | 0.00 | -  | -  | <b>0.39</b> |        |
| 22 SS 44 BG II              | -                           | 0.67 | 0.00 | -  | -  | <b>0.34</b> |        |
| YASH-8888 BG II             | -                           | 0.54 | 0.00 | -  | -  | <b>0.27</b> |        |
| US 752 BGII                 | -                           | 0.64 | 0.00 | -  | -  | <b>0.32</b> |        |
| DC5302 BGII                 | -                           | 0.58 | 0.00 | -  | -  | <b>0.29</b> |        |
| NCS 2552 Bt2                | -                           | 0.71 | 0.00 | -  | -  | <b>0.35</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                           | -    | 0.00 | -  | -  | <b>0.00</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions: *Helicoverpa armigera***

| Name of Entry               | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |    |             | Remark |
|-----------------------------|---------------------------------------------|------|------|------|----|-------------|--------|
|                             | NA                                          | DH   | PE   | AD   | MU | Mean        |        |
| DACH 91S19 BGII             | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| DACH 84S48 BGII             | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| GCH-5508 Bt2                | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CCH 527 BGII                | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| PCH 2997 Bt2                | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| ARCH 2527 BGII              | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| ARCH 2526 BGII              | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CCH-501 Bt2                 | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| YASH-2222 BG II             | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| C9404 BG-II                 | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| 22 SS 44 BG II              | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| YASH-8888 BG II             | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| US 752 BGII                 | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| DC5302 BGII                 | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| NCS 2552 Bt2                | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                           | -    | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions -Spotted/Spiny Bollworms**

| Name of Entry               | Spotted Bollworms (No. /5 plants) |      |      |      |    |      | Remark |
|-----------------------------|-----------------------------------|------|------|------|----|------|--------|
|                             | NA                                | DH   | PE   | AD   | MU | Mean |        |
| DACH 91S19 BGII             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 84S48 BGII             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GCH-5508 Bt2                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 527 BGII                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 2997 Bt2                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2527 BGII              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2526 BGII              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH-501 Bt2                 | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-2222 BG II             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C9404 BG-II                 | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 22 SS 44 BG II              | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-8888 BG II             | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 752 BGII                 | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5302 BGII                 | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 2552 Bt2                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                 | -    | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry               | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |    |      | Remark |
|-----------------------------|------------------------------------------|------|------|------|----|------|--------|
|                             | NA                                       | DH   | PE   | AD   | MU | Mean |        |
| DACH 91S19 BGII             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 84S48 BGII             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GCH-5508 Bt2                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 527 BGII                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 2997 Bt2                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2527 BGII              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2526 BGII              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH-501 Bt2                 | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-2222 BG II             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C9404 BG-II                 | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 22 SS 44 BG II              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-8888 BG II             | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 752 BGII                 | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5302 BGII                 | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 2552 Bt2                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                        | -    | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Pink bollworm**

| Name of Entry               | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |             | Remark      |
|-----------------------------|---------------------------------------------------------|------|------|------|----|-------------|-------------|
|                             | NA                                                      | DH   | PE   | AD#  | MU | Mean        |             |
| DACH 91S19 BGII             | -                                                       | 0.50 | 2.18 | 0.53 | -  | <b>1.07</b> | <b>AETL</b> |
| DACH 84S48 BGII             | -                                                       | 0.50 | 0.52 | 0.67 | -  | <b>0.56</b> | <b>BETL</b> |
| GCH-5508 Bt2                | -                                                       | 0.33 | 1.18 | 0.53 | -  | <b>0.68</b> | <b>BETL</b> |
| CCH 527 BGII                | -                                                       | 1.17 | 1.85 | 0.73 | -  | <b>1.25</b> | <b>AETL</b> |
| PCH 2997 Bt2                | -                                                       | 0.67 | 0.85 | 0.60 | -  | <b>0.71</b> | <b>BETL</b> |
| ARCH 2527 BGII              | -                                                       | 1.00 | 1.18 | 0.53 | -  | <b>0.90</b> | <b>BETL</b> |
| ARCH 2526 BGII              | -                                                       | 0.50 | 1.85 | 0.80 | -  | <b>1.05</b> | <b>AETL</b> |
| CCH-501 Bt2                 | -                                                       | 0.50 | 0.85 | 0.80 | -  | <b>0.72</b> | <b>BETL</b> |
| YASH-2222 BG II             | -                                                       | 0.50 | 1.18 | 0.67 | -  | <b>0.78</b> | <b>BETL</b> |
| C9404 BG-II                 | -                                                       | 1.00 | 1.18 | 1.40 | -  | <b>1.19</b> | <b>AETL</b> |
| SP7679 BGII (ZC 1)          | -                                                       | 1.17 | 1.18 | 0.93 | -  | <b>1.09</b> | <b>AETL</b> |
| Daftari 615 BG II (ZC 2)    | -                                                       | 1.33 | 1.85 | 1.00 | -  | <b>1.39</b> | <b>AETL</b> |
| 22 SS 44 BG II              | -                                                       | 0.33 | 1.18 | 1.20 | -  | <b>0.90</b> | <b>BETL</b> |
| YASH-8888 BG II             | -                                                       | 0.33 | 1.15 | 0.93 | -  | <b>0.80</b> | <b>BETL</b> |
| US 752 BGII                 | -                                                       | 0.33 | 1.55 | 0.65 | -  | <b>0.84</b> | <b>BETL</b> |
| DC5302 BGII                 | -                                                       | 0.50 | 1.50 | 0.65 | -  | <b>0.88</b> | <b>BETL</b> |
| NCS 2552 Bt2                | -                                                       | 0.33 | 1.20 | 0.85 | -  | <b>0.79</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                                       | -    | 1.25 | 0.83 | -  | <b>1.23</b> | <b>AETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry               | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |             | Remark      |
|-----------------------------|-----------------------------------------|------|----|------|----|-------------|-------------|
|                             | NA                                      | DH   | PE | AD   | MU | Mean        |             |
| DACH 91S19 BGII             | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| DACH 84S48 BGII             | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| GCH-5508 Bt2                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 527 BGII                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| PCH 2997 Bt2                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| ARCH 2527 BGII              | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| ARCH 2526 BGII              | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH-501 Bt2                 | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| YASH-2222 BG II             | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| C9404 BG-II                 | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| 22 SS 44 BG II              | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| YASH-8888 BG II             | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| US 752 BGII                 | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| DC5302 BGII                 | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| NCS 2552 Bt2                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                       | -    | -  | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H(Compact) trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry               | Green Boll Damage (%) /10 bolls destructive sampling |       |    |       |    |       | Remark |
|-----------------------------|------------------------------------------------------|-------|----|-------|----|-------|--------|
|                             | NA                                                   | DH    | PE | AD    | MU | Mean  |        |
| DACH 91S19 BGII             | -                                                    | 6.67  | -  | 20.00 | -  | 13.34 | AETL   |
| DACH 84S48 BGII             | -                                                    | 6.67  | -  | 28.00 | -  | 17.34 | AETL   |
| GCH-5508 Bt2                | -                                                    | 8.33  | -  | 20.00 | -  | 14.17 | AETL   |
| CCH 527 BGII                | -                                                    | 11.67 | -  | 22.67 | -  | 17.17 | AETL   |
| PCH 2997 Bt2                | -                                                    | 10.00 | -  | 16.67 | -  | 13.34 | AETL   |
| ARCH 2527 BGII              | -                                                    | 8.33  | -  | 24.00 | -  | 16.17 | AETL   |
| ARCH 2526 BGII              | -                                                    | 8.33  | -  | 21.33 | -  | 14.83 | AETL   |
| CCH-501 Bt2                 | -                                                    | 10.00 | -  | 18.00 | -  | 14.00 | AETL   |
| YASH-2222 BG II             | -                                                    | 8.33  | -  | 18.67 | -  | 13.50 | AETL   |
| C9404 BG-II                 | -                                                    | 10.00 | -  | 22.00 | -  | 16.00 | AETL   |
| SP7679 BGII (ZC 1)          | -                                                    | 15.00 | -  | 24.67 | -  | 19.84 | AETL   |
| Daftari 615 BG II (ZC 2)    | -                                                    | 15.00 | -  | 14.00 | -  | 14.50 | AETL   |
| 22 SS 44 BG II              | -                                                    | 5.00  | -  | 13.33 | -  | 9.17  | BETL   |
| YASH-8888 BG II             | -                                                    | 8.33  | -  | 22.00 | -  | 15.17 | AETL   |
| US 752 BGII                 | -                                                    | 6.67  | -  | 20.50 | -  | 13.59 | AETL   |
| DC5302 BGII                 | -                                                    | 6.67  | -  | 22.50 | -  | 14.59 | AETL   |
| NCS 2552 Bt2                | -                                                    | 10.00 | -  | 23.75 | -  | 16.88 | AETL   |
| SP7679 BGII (ZC 1) (normal) | -                                                    | -     | -  | 23.75 | -  | 23.75 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry               | Open Boll Damage (%) |       |      |       |    |       | Remark |
|-----------------------------|----------------------|-------|------|-------|----|-------|--------|
|                             | NA                   | DH    | PE   | AD    | MU | Mean  |        |
| DACH 91S19 BGII             | -                    | 7.56  | 7.00 | 17.83 | -  | 10.80 |        |
| DACH 84S48 BGII             | -                    | 12.46 | 9.00 | 14.17 | -  | 11.88 |        |
| GCH-5508 Bt2                | -                    | 3.18  | 5.00 | 17.83 | -  | 8.67  |        |
| CCH 527 BGII                | -                    | 15.03 | 8.00 | 18.33 | -  | 13.79 |        |
| PCH 2997 Bt2                | -                    | 7.38  | 8.00 | 21.83 | -  | 12.40 |        |
| ARCH 2527 BGII              | -                    | 7.35  | 4.00 | 12.50 | -  | 7.95  |        |
| ARCH 2526 BGII              | -                    | 10.91 | 6.00 | 11.50 | -  | 9.47  |        |
| CCH-501 Bt2                 | -                    | 6.83  | 9.00 | 10.83 | -  | 8.89  |        |
| YASH-2222 BG II             | -                    | 6.92  | 5.00 | 10.83 | -  | 7.58  |        |
| C9404 BG-II                 | -                    | 9.45  | 7.00 | 11.50 | -  | 9.32  |        |
| SP7679 BGII (ZC 1)          | -                    | 11.89 | 6.00 | 13.17 | -  | 10.35 |        |
| Daftari 615 BG II (ZC 2)    | -                    | 10.10 | 6.00 | 19.00 | -  | 11.70 |        |
| 22 SS 44 BG II              | -                    | 7.09  | 4.00 | 17.33 | -  | 9.47  |        |
| YASH-8888 BG II             | -                    | 6.72  | 6.00 | 18.33 | -  | 10.35 |        |
| US 752 BGII                 | -                    | 7.04  | 5.00 | 19.50 | -  | 10.51 |        |
| DC5302 BGII                 | -                    | 8.33  | 8.00 | 23.50 | -  | 13.28 |        |
| NCS 2552 Bt2                | -                    | 7.10  | 7.00 | 19.50 | -  | 11.20 |        |
| SP7679 BGII (ZC 1) (normal) | -                    | -     | 4.00 | 16.29 | -  | 10.15 |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry               | Locule Damage (%) |       |      |       |    |             | Remark |
|-----------------------------|-------------------|-------|------|-------|----|-------------|--------|
|                             | NA                | DH    | PE   | AD    | MU | Mean        |        |
| DACH 91S19 BGII             | -                 | 5.17  | 3.00 | 8.60  | -  | <b>5.59</b> |        |
| DACH 84S48 BGII             | -                 | 7.42  | 4.00 | 7.53  | -  | <b>6.32</b> |        |
| GCH-5508 Bt2                | -                 | 8.17  | 3.00 | 10.50 | -  | <b>7.22</b> |        |
| CCH 527 BGII                | -                 | 10.17 | 3.00 | 10.37 | -  | <b>7.85</b> |        |
| PCH 2997 Bt2                | -                 | 6.08  | 2.00 | 9.13  | -  | <b>5.74</b> |        |
| ARCH 2527 BGII              | -                 | 8.67  | 1.00 | 7.40  | -  | <b>5.69</b> |        |
| ARCH 2526 BGII              | -                 | 5.92  | 2.00 | 9.33  | -  | <b>5.75</b> |        |
| CCH-501 Bt2                 | -                 | 3.92  | 4.00 | 8.73  | -  | <b>5.55</b> |        |
| YASH-2222 BG II             | -                 | 4.42  | 2.00 | 4.80  | -  | <b>3.74</b> |        |
| C9404 BG-II                 | -                 | 3.50  | 3.00 | 4.73  | -  | <b>3.74</b> |        |
| SP7679 BGII (ZC 1)          | -                 | 10.08 | 2.00 | 7.20  | -  | <b>6.43</b> |        |
| Daftari 615 BG II (ZC 2)    | -                 | 10.42 | 2.00 | 10.30 | -  | <b>7.57</b> |        |
| 22 SS 44 BG II              | -                 | 7.33  | 2.00 | 7.60  | -  | <b>5.64</b> |        |
| YASH-8888 BG II             | -                 | 5.92  | 2.00 | 9.93  | -  | <b>5.95</b> |        |
| US 752 BGII                 | -                 | 6.75  | 1.00 | 9.25  | -  | <b>5.67</b> |        |
| DC5302 BGII                 | -                 | 5.42  | 3.00 | 11.80 | -  | <b>6.74</b> |        |
| NCS 2552 Bt2                | -                 | 6.67  | 2.00 | 9.75  | -  | <b>6.14</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                 | -     | 1.00 | 7.67  | -  | <b>4.34</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry               | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|-----------------------------|------------------------------------|------|------|------|------|-------------|--------|
|                             | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| DACH 91S19 BGII             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| DACH 84S48 BGII             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| GCH-5508 Bt2                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH 527 BGII                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| PCH 2997 Bt2                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| ARCH 2527 BGII              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| ARCH 2526 BGII              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH-501 Bt2                 | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| YASH-2222 BG II             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| C9404 BG-II                 | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SP7679 BGII (ZC 1)          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Daftari 615 BG II (ZC 2)    | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| 22 SS 44 BG II              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| YASH-8888 BG II             | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| US 752 BGII                 | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| DC5302 BGII                 | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NCS 2552 Bt2                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                                  | -    | 6.00 | 4.00 | 4.00 | <b>4.67</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 14(a): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Rainfed (IET Compact RF) under Protected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | UAS Dharwad                                               |    |      |    |      |    |      |    |
|        |         |                          | ALB                                                       |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 14     | 56071   | DACH 91S19 BGII          | 22.0                                                      | R  | 10.8 | R  | 15.5 | R  | 18.3 | R  |
| 10     | 56072   | DACH 84S48 BGII          | 22.3                                                      | R  | 10.5 | R  | 16.6 | R  | 18.4 | R  |
| 6      | 56073   | GCH-5508 Bt2             | 22.0                                                      | R  | 10.8 | R  | 15.7 | R  | 18.2 | R  |
| 3      | 56074   | CCH 527 BGII             | 23.9                                                      | R  | 9.9  | R  | 16.3 | R  | 18.2 | R  |
| 1      | 56075   | PCH 2997 Bt2             | 22.3                                                      | R  | 8.8  | R  | 15.5 | R  | 18.7 | R  |
| 17     | 56076   | ARCH 2527 BGII           | 21.7                                                      | R  | 10.8 | R  | 15.8 | R  | 18.4 | R  |
| 12     | 56077   | ARCH 2526 BGII           | 22.3                                                      | R  | 10.7 | R  | 14.8 | R  | 17.9 | R  |
| 8      | 56078   | CCH-501 Bt2              | 22.7                                                      | R  | 10.7 | R  | 15.4 | R  | 19.2 | R  |
| 5      | 56079   | YASH-2222 BG II          | 22.7                                                      | R  | 10.4 | R  | 14.7 | R  | 17.6 | R  |
| 2      | 56080   | C9404 BG-II              | 22.6                                                      | R  | 10.9 | R  | 15.4 | R  | 18.6 | R  |
| 16     | 56081   | SP7679 BGII (ZC 1)       | 23.4                                                      | R  | 10.5 | R  | 16.2 | R  | 17.9 | R  |
| 13     | 56082   | Daftari 615 BG II (ZC 2) | 23.2                                                      | R  | 9.6  | R  | 15.3 | R  | 17.9 | R  |
| 11     | 56083   | 22 SS 44 BG II           | 22.8                                                      | R  | 10.7 | R  | 18.3 | R  | 18.8 | R  |
| 9      | 56084   | YASH-8888 BG II          | 23.3                                                      | R  | 9.5  | R  | 18.4 | R  | 19.1 | R  |
| 7      | 56085   | US 752 BGII              | 23.1                                                      | R  | 9.7  | R  | 19.5 | R  | 18.8 | R  |
| 4      | 56086   | DC5302 BGII              | 22.3                                                      | R  | 10.3 | R  | 19.2 | R  | 18.1 | R  |
| 15     | 56087   | NCS 2552 Bt2             | 21.9                                                      | R  | 11.1 | R  | 14.3 | R  | 16.7 | R  |



## Evaluation under Unprotected Condition for Insect pests Reaction to Insect Pest

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions  
– Aphid**

| Name of Entry               | Aphid (Average of 3 leaves/plant) |      |      |       |              | Remark      |
|-----------------------------|-----------------------------------|------|------|-------|--------------|-------------|
|                             | DH                                | PE   | AD   | MU    | Mean         |             |
| DACH 91S19 BGII             | 7.40                              | 1.00 | 2.02 | 14.90 | <b>6.33</b>  | <b>BETL</b> |
| DACH 84S48 BGII             | 7.11                              | 0.33 | 2.86 | 25.61 | <b>8.98</b>  | <b>BETL</b> |
| GCH-5508 Bt2                | 6.31                              | 1.33 | 1.72 | 15.68 | <b>6.26</b>  | <b>BETL</b> |
| CCH 527 BGII                | 6.22                              | 1.00 | 1.70 | 25.40 | <b>8.58</b>  | <b>BETL</b> |
| PCH 2997 Bt2                | 6.41                              | 0.67 | 1.93 | 35.23 | <b>11.06</b> | <b>AETL</b> |
| ARCH 2527 BGII              | 5.93                              | 1.33 | 1.08 | 9.57  | <b>4.48</b>  | <b>BETL</b> |
| ARCH 2526 BGII              | 7.13                              | 1.33 | 1.40 | 18.06 | <b>6.98</b>  | <b>BETL</b> |
| CCH-501 Bt2                 | 5.76                              | 0.67 | 1.31 | 10.81 | <b>4.64</b>  | <b>BETL</b> |
| YASH-2222 BG II             | 5.49                              | 1.00 | 1.23 | 18.52 | <b>6.56</b>  | <b>BETL</b> |
| C9404 BG-II                 | 5.93                              | 0.67 | 1.65 | 20.90 | <b>7.29</b>  | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | 7.29                              | 1.33 | 1.28 | 10.04 | <b>4.98</b>  | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | 8.76                              | 1.33 | 1.49 | 7.97  | <b>4.89</b>  | <b>BETL</b> |
| 22 SS 44 BG II              | 7.64                              | 1.33 | 0.98 | 30.47 | <b>10.11</b> | <b>AETL</b> |
| YASH-8888 BG II             | 7.89                              | 1.33 | 1.57 | 15.62 | <b>6.60</b>  | <b>BETL</b> |
| US 752 BGII                 | 6.72                              | 1.33 | 1.28 | 11.43 | <b>5.19</b>  | <b>BETL</b> |
| DC5302 BGII                 | 5.93                              | 0.67 | 1.61 | 14.28 | <b>5.62</b>  | <b>BETL</b> |
| NCS 2552 Bt2                | 5.71                              | 1.33 | 1.39 | 6.00  | <b>3.61</b>  | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                 | 1.00 | 1.44 | 28.71 | <b>10.38</b> | <b>AETL</b> |

**DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry               | Leafhopper (Average of 3 leaves/plant) |       |      |      |             | Remark      |
|-----------------------------|----------------------------------------|-------|------|------|-------------|-------------|
|                             | DH                                     | PE    | AD   | MU   | Mean        |             |
| DACH 91S19 BGII             | 2.11                                   | 10.33 | 0.24 | 4.47 | <b>4.29</b> | <b>BETL</b> |
| DACH 84S48 BGII             | 2.04                                   | 8.33  | 0.80 | 1.96 | <b>3.28</b> | <b>BETL</b> |
| GCH-5508 Bt2                | 3.13                                   | 9.00  | 0.42 | 1.61 | <b>3.54</b> | <b>BETL</b> |
| CCH 527 BGII                | 3.53                                   | 7.67  | 0.66 | 5.04 | <b>4.23</b> | <b>BETL</b> |
| PCH 2997 Bt2                | 3.49                                   | 5.33  | 0.47 | 4.28 | <b>3.39</b> | <b>BETL</b> |
| ARCH 2527 BGII              | 3.60                                   | 8.00  | 0.28 | 1.06 | <b>3.24</b> | <b>BETL</b> |
| ARCH 2526 BGII              | 1.93                                   | 7.67  | 0.87 | 1.26 | <b>2.93</b> | <b>BETL</b> |
| CCH-501 Bt2                 | 1.98                                   | 9.00  | 2.04 | 1.79 | <b>3.70</b> | <b>BETL</b> |
| YASH-2222 BG II             | 2.51                                   | 9.00  | 0.41 | 0.89 | <b>3.20</b> | <b>BETL</b> |
| C9404 BG-II                 | 3.49                                   | 12.67 | 0.53 | 1.43 | <b>4.53</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | 3.58                                   | 10.33 | 0.78 | 0.72 | <b>3.85</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | 2.24                                   | 9.67  | 0.20 | 0.24 | <b>3.09</b> | <b>BETL</b> |
| 22 SS 44 BG II              | 2.20                                   | 9.00  | 0.45 | 4.48 | <b>4.03</b> | <b>BETL</b> |
| YASH-8888 BG II             | 1.98                                   | 11.33 | 0.26 | 0.90 | <b>3.62</b> | <b>BETL</b> |
| US 752 BGII                 | 2.18                                   | 11.67 | 0.55 | 0.71 | <b>3.78</b> | <b>BETL</b> |
| DC5302 BGII                 | 2.16                                   | 8.67  | 0.77 | 2.52 | <b>3.53</b> | <b>BETL</b> |
| NCS 2552 Bt2                | 2.04                                   | 8.33  | 0.37 | 0.36 | <b>2.78</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) |                                        | 6.67  | 0.38 | 0.72 | <b>2.59</b> | <b>BETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry               | JIG/plant |    |    |    |           | Remark |
|-----------------------------|-----------|----|----|----|-----------|--------|
|                             | DH        | PE | AD | MU | Mean      |        |
| DACH 91S19 BGII             | I         | -  | -  | -  | <b>I</b>  |        |
| DACH 84S48 BGII             | I         | -  | -  | -  | <b>I</b>  |        |
| GCH-5508 Bt2                | II        | -  | -  | -  | <b>II</b> |        |
| CCH 527 BGII                | II        | -  | -  | -  | <b>II</b> |        |
| PCH 2997 Bt2                | II        | -  | -  | -  | <b>II</b> |        |
| ARCH 2527 BGII              | II        | -  | -  | -  | <b>II</b> |        |
| ARCH 2526 BGII              | I         | -  | -  | -  | <b>I</b>  |        |
| CCH-501 Bt2                 | I         | -  | -  | -  | <b>I</b>  |        |
| YASH-2222 BG II             | I         | -  | -  | -  | <b>I</b>  |        |
| C9404 BG-II                 | II        | -  | -  | -  | <b>II</b> |        |
| SP7679 BGII (ZC 1)          | II        | -  | -  | -  | <b>II</b> |        |
| Daftari 615 BG II (ZC 2)    | I         | -  | -  | -  | <b>I</b>  |        |
| 22 SS 44 BG II              | I         | -  | -  | -  | <b>I</b>  |        |
| YASH-8888 BG II             | I         | -  | -  | -  | <b>I</b>  |        |
| US 752 BGII                 | I         | -  | -  | -  | <b>I</b>  |        |
| DC5302 BGII                 | I         | -  | -  | -  | <b>I</b>  |        |
| NCS 2552 Bt2                | II        | -  | -  | -  | <b>II</b> |        |
| SP7679 BGII (ZC 1) (normal) | -         | -  | -  | -  | <b>-</b>  |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry               | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------------|------------------------------------|------|------|------|-------------|-------------|
|                             | DH                                 | PE   | AD   | MU   | Mean        |             |
| DACH 91S19 BGII             | 16.47                              | 3.33 | 2.04 | 0.03 | <b>5.47</b> | <b>BETL</b> |
| DACH 84S48 BGII             | 15.78                              | 3.00 | 0.18 | 0.15 | <b>4.78</b> | <b>BETL</b> |
| GCH-5508 Bt2                | 19.33                              | 3.00 | 2.53 | 0.09 | <b>6.24</b> | <b>BETL</b> |
| CCH 527 BGII                | 17.58                              | 1.33 | 2.71 | 0.03 | <b>5.41</b> | <b>BETL</b> |
| PCH 2997 Bt2                | 19.71                              | 3.67 | 2.53 | 0.04 | <b>6.49</b> | <b>BETL</b> |
| ARCH 2527 BGII              | 18.31                              | 4.00 | 2.22 | 0.00 | <b>6.13</b> | <b>BETL</b> |
| ARCH 2526 BGII              | 14.38                              | 2.33 | 2.13 | 0.50 | <b>4.83</b> | <b>BETL</b> |
| CCH-501 Bt2                 | 15.69                              | 2.33 | 0.89 | 0.28 | <b>4.80</b> | <b>BETL</b> |
| YASH-2222 BG II             | 17.13                              | 2.33 | 2.55 | 0.25 | <b>5.57</b> | <b>BETL</b> |
| C9404 BG-II                 | 18.42                              | 2.00 | 2.33 | 0.09 | <b>5.71</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | 18.82                              | 1.33 | 2.86 | 0.00 | <b>5.75</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | 20.29                              | 1.67 | 3.43 | 0.06 | <b>6.36</b> | <b>BETL</b> |
| 22 SS 44 BG II              | 18.00                              | 3.67 | 3.13 | 0.00 | <b>6.20</b> | <b>BETL</b> |
| YASH-8888 BG II             | 20.00                              | 2.00 | 1.00 | 0.12 | <b>5.78</b> | <b>BETL</b> |
| US 752 BGII                 | 19.47                              | 2.67 | 2.71 | 0.03 | <b>6.22</b> | <b>BETL</b> |
| DC5302 BGII                 | 18.40                              | 1.33 | 2.60 | 0.34 | <b>5.67</b> | <b>BETL</b> |
| NCS 2552 Bt2                | 17.27                              | 2.00 | 2.58 | 0.00 | <b>5.46</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                  | 1.33 | 3.13 | 0.06 | <b>1.51</b> | <b>BETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry               | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|-----------------------------|--------------------------------------|------|------|------|-------------|-------------|
|                             | DH                                   | PE   | AD   | MU   | Mean        |             |
| DACH 91S19 BGII             | 1.00                                 | 0.33 | 0.13 | 3.79 | <b>1.31</b> | <b>BETL</b> |
| DACH 84S48 BGII             | 0.56                                 | 0.67 | 0.31 | 2.67 | <b>1.05</b> | <b>BETL</b> |
| GCH-5508 Bt2                | 1.33                                 | 1.00 | 0.46 | 1.95 | <b>1.19</b> | <b>BETL</b> |
| CCH 527 BGII                | 1.67                                 | 0.67 | 0.44 | 3.28 | <b>1.51</b> | <b>BETL</b> |
| PCH 2997 Bt2                | 1.56                                 | 1.00 | 0.38 | 2.82 | <b>1.44</b> | <b>BETL</b> |
| ARCH 2527 BGII              | 1.44                                 | 0.33 | 0.02 | 1.54 | <b>0.83</b> | <b>BETL</b> |
| ARCH 2526 BGII              | 1.11                                 | 1.00 | 0.31 | 0.97 | <b>0.85</b> | <b>BETL</b> |
| CCH-501 Bt2                 | 0.67                                 | 0.67 | 0.31 | 1.49 | <b>0.78</b> | <b>BETL</b> |
| YASH-2222 BG II             | 1.00                                 | 0.33 | 0.07 | 1.49 | <b>0.72</b> | <b>BETL</b> |
| C9404 BG-II                 | 0.67                                 | 0.67 | 0.06 | 1.59 | <b>0.75</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | 0.67                                 | 0.67 | 0.45 | 1.03 | <b>0.70</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | 0.56                                 | 0.67 | 0.26 | 0.61 | <b>0.52</b> | <b>BETL</b> |
| 22 SS 44 BG II              | 0.89                                 | 0.33 | 0.42 | 3.74 | <b>1.35</b> | <b>BETL</b> |
| YASH-8888 BG II             | 1.22                                 | 0.33 | 0.00 | 0.56 | <b>0.53</b> | <b>BETL</b> |
| US 752 BGII                 | 0.78                                 | 0.67 | 0.24 | 2.72 | <b>1.10</b> | <b>BETL</b> |
| DC5302 BGII                 | 0.89                                 | 0.67 | 0.22 | 2.61 | <b>1.10</b> | <b>BETL</b> |
| NCS 2552 Bt2                | 1.11                                 | 0.67 | 0.53 | 1.08 | <b>0.85</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                    | 0.67 | 0.67 | 1.03 | <b>0.79</b> | <b>BETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry               | Natural Enemies (No./plant) |      |      |    |             | Remark |
|-----------------------------|-----------------------------|------|------|----|-------------|--------|
|                             | DH                          | PE   | AD   | MU | Mean        |        |
| DACH 91S19 BGII             | 1.16                        | 0.00 | 0.20 | -  | <b>0.45</b> |        |
| DACH 84S48 BGII             | 0.98                        | 0.00 | 0.20 | -  | <b>0.39</b> |        |
| GCH-5508 Bt2                | 1.07                        | 0.00 | 0.27 | -  | <b>0.45</b> |        |
| CCH 527 BGII                | 0.91                        | 0.00 | 0.00 | -  | <b>0.30</b> |        |
| PCH 2997 Bt2                | 0.53                        | 0.00 | 0.13 | -  | <b>0.22</b> |        |
| ARCH 2527 BGII              | 0.60                        | 0.00 | 0.14 | -  | <b>0.25</b> |        |
| ARCH 2526 BGII              | 0.69                        | 0.00 | 0.00 | -  | <b>0.23</b> |        |
| CCH-501 Bt2                 | 0.82                        | 0.00 | 0.20 | -  | <b>0.34</b> |        |
| YASH-2222 BG II             | 0.53                        | 0.00 | 0.14 | -  | <b>0.22</b> |        |
| C9404 BG-II                 | 0.73                        | 0.00 | 0.00 | -  | <b>0.24</b> |        |
| SP7679 BGII (ZC 1)          | 0.80                        | 0.00 | 0.13 | -  | <b>0.31</b> |        |
| Daftari 615 BG II (ZC 2)    | 1.27                        | 0.00 | 0.07 | -  | <b>0.45</b> |        |
| 22 SS 44 BG II              | 0.51                        | 0.00 | 0.00 | -  | <b>0.17</b> |        |
| YASH-8888 BG II             | 0.62                        | 0.00 | 0.13 | -  | <b>0.25</b> |        |
| US 752 BGII                 | 0.51                        | 0.00 | 0.13 | -  | <b>0.21</b> |        |
| DC5302 BGII                 | 0.62                        | 0.00 | 0.53 | -  | <b>0.38</b> |        |
| NCS 2552 Bt2                | 0.60                        | 0.00 | 0.26 | -  | <b>0.29</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                           | 0.00 | 0.27 | -  | <b>0.14</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry               | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |    |             | Remark |
|-----------------------------|---------------------------------------------|------|------|----|-------------|--------|
|                             | DH                                          | PE   | AD   | MU | Mean        |        |
| DACH 91S19 BGII             | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| DACH 84S48 BGII             | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| GCH-5508 Bt2                | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CCH 527 BGII                | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| PCH 2997 Bt2                | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| ARCH 2527 BGII              | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| ARCH 2526 BGII              | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CCH-501 Bt2                 | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| YASH-2222 BG II             | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| C9404 BG-II                 | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| 22 SS 44 BG II              | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| YASH-8888 BG II             | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| US 752 BGII                 | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| DC5302 BGII                 | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| NCS 2552 Bt2                | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                           | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions - Spotted/Spiny Bollworms**

| Name of Entry               | Spotted Bollworms (No. /5 plants) |      |      |    |      | Remark |
|-----------------------------|-----------------------------------|------|------|----|------|--------|
|                             | DH                                | PE   | AD   | MU | Mean |        |
| DACH 91S19 BGII             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 84S48 BGII             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GCH-5508 Bt2                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 527 BGII                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 2997 Bt2                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2527 BGII              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2526 BGII              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH-501 Bt2                 | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-2222 BG II             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C9404 BG-II                 | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 22 SS 44 BG II              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-8888 BG II             | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 752 BGII                 | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5302 BGII                 | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 2552 Bt2                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                 | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions –  
*Spodoptera litura***

| Name of Entry               | <i>Spodoptera litura</i> (No. /5 plants) |      |      |    |      | Remark |
|-----------------------------|------------------------------------------|------|------|----|------|--------|
|                             | DH                                       | PE   | AD   | MU | Mean |        |
| DACH 91S19 BGII             | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DACH 84S48 BGII             | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| GCH-5508 Bt2                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 527 BGII                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 2997 Bt2                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2527 BGII              | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ARCH 2526 BGII              | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH-501 Bt2                 | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-2222 BG II             | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| C9404 BG-II                 | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| 22 SS 44 BG II              | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| YASH-8888 BG II             | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| US 752 BGII                 | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| DC5302 BGII                 | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 2552 Bt2                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry               | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |    |      | Remark |
|-----------------------------|---------------------------------------------------------|------|------|----|------|--------|
|                             | DH                                                      | PE   | AD#  | MU | Mean |        |
| DACH 91S19 BGII             | 4.50                                                    | 1.98 | 0.00 | -  | 2.16 | AETL   |
| DACH 84S48 BGII             | 1.67                                                    | 0.98 | 1.00 | -  | 1.22 | AETL   |
| GCH-5508 Bt2                | 1.33                                                    | 1.31 | 0.00 | -  | 0.88 | BETL   |
| CCH 527 BGII                | 2.50                                                    | 1.31 | 0.40 | -  | 1.40 | AETL   |
| PCH 2997 Bt2                | 4.83                                                    | 1.31 | 1.00 | -  | 2.38 | AETL   |
| ARCH 2527 BGII              | 1.33                                                    | 1.98 | 0.40 | -  | 1.24 | AETL   |
| ARCH 2526 BGII              | 1.17                                                    | 1.31 | 0.40 | -  | 0.96 | BETL   |
| CCH-501 Bt2                 | 1.00                                                    | 2.31 | 0.00 | -  | 1.10 | AETL   |
| YASH-2222 BG II             | 1.00                                                    | 0.65 | 0.00 | -  | 0.55 | BETL   |
| C9404 BG-II                 | 1.17                                                    | 1.31 | 0.40 | -  | 0.96 | BETL   |
| SP7679 BGII (ZC 1)          | 2.83                                                    | 1.98 | 0.20 | -  | 1.67 | AETL   |
| Daftari 615 BG II (ZC 2)    | 3.00                                                    | 0.98 | 1.00 | -  | 1.66 | AETL   |
| 22 SS 44 BG II              | 1.17                                                    | 1.31 | 0.60 | -  | 1.03 | AETL   |
| YASH-8888 BG II             | 1.83                                                    | 1.28 | 0.60 | -  | 1.24 | AETL   |
| US 752 BGII                 | 1.50                                                    | 1.68 | 0.20 | -  | 1.13 | AETL   |
| DC5302 BGII                 | 2.17                                                    | 1.63 | 0.40 | -  | 1.40 | AETL   |
| NCS 2552 Bt2                | 1.83                                                    | 1.33 | 0.80 | -  | 1.32 | AETL   |
| SP7679 BGII (ZC 1) (normal) | -                                                       | 1.38 | 0.80 | -  | 1.09 | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry               | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |      | Remark |
|-----------------------------|-----------------------------------------|----|------|----|------|--------|
|                             | DH                                      | PE | AD   | MU | Mean |        |
| DACH 91S19 BGII             | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| DACH 84S48 BGII             | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| GCH-5508 Bt2                | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 527 BGII                | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| PCH 2997 Bt2                | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| ARCH 2527 BGII              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| ARCH 2526 BGII              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH-501 Bt2                 | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| YASH-2222 BG II             | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| C9404 BG-II                 | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| 22 SS 44 BG II              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| YASH-8888 BG II             | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| US 752 BGII                 | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| DC5302 BGII                 | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| NCS 2552 Bt2                | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                       | -  | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry               | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |       | Remark |
|-----------------------------|-------------------------------------------------------|----|-------|----|-------|--------|
|                             | DH                                                    | PE | AD    | MU | Mean  |        |
| DACH 91S19 BGII             | 18.33                                                 | -  | 18.00 | -  | 18.17 | AETL   |
| DACH 84S48 BGII             | 15.00                                                 | -  | 28.00 | -  | 21.50 | AETL   |
| GCH-5508 Bt2                | 8.33                                                  | -  | 24.00 | -  | 16.17 | AETL   |
| CCH 527 BGII                | 21.67                                                 | -  | 24.00 | -  | 22.84 | AETL   |
| PCH 2997 Bt2                | 26.67                                                 | -  | 28.00 | -  | 27.34 | AETL   |
| ARCH 2527 BGII              | 16.67                                                 | -  | 22.00 | -  | 19.34 | AETL   |
| ARCH 2526 BGII              | 15.00                                                 | -  | 22.00 | -  | 18.50 | AETL   |
| CCH-501 Bt2                 | 16.67                                                 | -  | 32.00 | -  | 24.34 | AETL   |
| YASH-2222 BG II             | 11.67                                                 | -  | 30.00 | -  | 20.84 | AETL   |
| C9404 BG-II                 | 10.00                                                 | -  | 36.00 | -  | 23.00 | AETL   |
| SP7679 BGII (ZC 1)          | 28.33                                                 | -  | 30.00 | -  | 29.17 | AETL   |
| Daftari 615 BG II (ZC 2)    | 31.67                                                 | -  | 28.00 | -  | 29.84 | AETL   |
| 22 SS 44 BG II              | 11.67                                                 | -  | 28.00 | -  | 19.84 | AETL   |
| YASH-8888 BG II             | 1.83                                                  | -  | 30.00 | -  | 15.92 | AETL   |
| US 752 BGII                 | 1.50                                                  | -  | 28.00 | -  | 14.75 | AETL   |
| DC5302 BGII                 | 2.17                                                  | -  | 36.00 | -  | 19.09 | AETL   |
| NCS 2552 Bt2                | 1.83                                                  | -  | 22.00 | -  | 11.92 | AETL   |
| SP7679 BGII (ZC 1) (normal) | -                                                     | -  | 24.00 | -  | 24.00 | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry               | Open Boll Damage (%) |       |       |    |       | Remark |
|-----------------------------|----------------------|-------|-------|----|-------|--------|
|                             | DH                   | PE    | AD    | MU | Mean  |        |
| DACH 91S19 BGII             | 21.25                | 9.00  | 10.00 | -  | 13.42 |        |
| DACH 84S48 BGII             | 18.14                | 11.00 | 15.00 | -  | 14.71 |        |
| GCH-5508 Bt2                | 7.38                 | 7.00  | 15.00 | -  | 9.79  |        |
| CCH 527 BGII                | 18.03                | 10.00 | 16.00 | -  | 14.68 |        |
| PCH 2997 Bt2                | 25.18                | 11.00 | 15.00 | -  | 17.06 |        |
| ARCH 2527 BGII              | 10.33                | 6.00  | 12.00 | -  | 9.44  |        |
| ARCH 2526 BGII              | 14.57                | 8.00  | 15.00 | -  | 12.52 |        |
| CCH-501 Bt2                 | 14.00                | 12.00 | 20.00 | -  | 15.33 |        |
| YASH-2222 BG II             | 7.33                 | 6.00  | 20.00 | -  | 11.11 |        |
| C9404 BG-II                 | 13.48                | 8.00  | 20.00 | -  | 13.83 |        |
| SP7679 BGII (ZC 1)          | 15.25                | 9.00  | 20.00 | -  | 14.75 |        |
| Daftari 615 BG II (ZC 2)    | 19.50                | 8.00  | 15.00 | -  | 14.17 |        |
| 22 SS 44 BG II              | 13.09                | 7.00  | 15.00 | -  | 11.70 |        |
| YASH-8888 BG II             | 10.72                | 9.00  | 20.00 | -  | 13.24 |        |
| US 752 BGII                 | 10.50                | 7.00  | 15.00 | -  | 10.83 |        |
| DC5302 BGII                 | 11.33                | 10.00 | 20.00 | -  | 13.78 |        |
| NCS 2552 Bt2                | 14.10                | 10.00 | 15.00 | -  | 13.03 |        |
| SP7679 BGII (ZC 1) (normal) | -                    | 8.00  | 15.00 | -  | 11.50 |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial H X H (Compact) trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry               | Locule Damage (%) |      |       |    |              | Remark |
|-----------------------------|-------------------|------|-------|----|--------------|--------|
|                             | DH                | PE   | AD    | MU | Mean         |        |
| DACH 91S19 BGII             | 19.41             | 4.00 | 12.50 | -  | <b>11.97</b> |        |
| DACH 84S48 BGII             | 12.75             | 4.00 | 21.00 | -  | <b>12.58</b> |        |
| GCH-5508 Bt2                | 14.17             | 3.00 | 19.00 | -  | <b>12.06</b> |        |
| CCH 527 BGII                | 15.75             | 3.00 | 16.50 | -  | <b>11.75</b> |        |
| PCH 2997 Bt2                | 20.58             | 2.00 | 18.50 | -  | <b>13.69</b> |        |
| ARCH 2527 BGII              | 13.42             | 3.00 | 15.00 | -  | <b>10.47</b> |        |
| ARCH 2526 BGII              | 10.42             | 3.00 | 10.50 | -  | <b>7.97</b>  |        |
| CCH-501 Bt2                 | 9.42              | 4.00 | 19.50 | -  | <b>10.97</b> |        |
| YASH-2222 BG II             | 7.92              | 2.00 | 21.50 | -  | <b>10.47</b> |        |
| C9404 BG-II                 | 6.75              | 3.00 | 22.50 | -  | <b>10.75</b> |        |
| SP7679 BGII (ZC 1)          | 16.67             | 3.00 | 23.50 | -  | <b>14.39</b> |        |
| Daftari 615 BG II (ZC 2)    | 15.42             | 2.00 | 13.50 | -  | <b>10.31</b> |        |
| 22 SS 44 BG II              | 11.92             | 3.00 | 15.00 | -  | <b>9.97</b>  |        |
| YASH-8888 BG II             | 6.25              | 5.00 | 15.50 | -  | <b>8.92</b>  |        |
| US 752 BGII                 | 11.25             | 3.00 | 19.00 | -  | <b>11.08</b> |        |
| DC5302 BGII                 | 9.42              | 4.00 | 24.50 | -  | <b>12.64</b> |        |
| NCS 2552 Bt2                | 12.08             | 3.00 | 18.50 | -  | <b>11.19</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                 | 2.00 | 17.00 | -  | <b>9.50</b>  |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





## Reaction to Diseases

**Table 14(b): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids- Rainfed (IET Compact RF) under Unprotected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | UAS Dharwad                                                 |    |      |    |      |    |      |    |
|        |         |                          | ALB                                                         |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 14     | 56071   | DACH 91S19 BGII          | 24.0                                                        | R  | 12.4 | R  | 16.2 | R  | 18.8 | R  |
| 10     | 56072   | DACH 84S48 BGII          | 22.8                                                        | R  | 12.3 | R  | 15.8 | R  | 19.6 | R  |
| 6      | 56073   | GCH-5508 Bt2             | 23.3                                                        | R  | 11.9 | R  | 17.4 | R  | 14.5 | R  |
| 3      | 56074   | CCH 527 BGII             | 22.9                                                        | R  | 11.2 | R  | 16.2 | R  | 18.3 | R  |
| 1      | 56075   | PCH 2997 Bt2             | 22.8                                                        | R  | 11.8 | R  | 15.7 | R  | 19.3 | R  |
| 17     | 56076   | ARCH 2527 BGII           | 23.5                                                        | R  | 11.9 | R  | 16.0 | R  | 18.3 | R  |
| 12     | 56077   | ARCH 2526 BGII           | 23.5                                                        | R  | 11.2 | R  | 17.4 | R  | 19.1 | R  |
| 8      | 56078   | CCH-501 Bt2              | 23.6                                                        | R  | 11.5 | R  | 14.1 | R  | 17.6 | R  |
| 5      | 56079   | YASH-2222 BG II          | 22.6                                                        | R  | 11.1 | R  | 18.3 | R  | 17.8 | R  |
| 2      | 56080   | C9404 BG-II              | 23.6                                                        | R  | 11.5 | R  | 16.2 | R  | 18.9 | R  |
| 16     | 56081   | SP7679 BGII (ZC 1)       | 23.6                                                        | R  | 11.4 | R  | 14.1 | R  | 19.5 | R  |
| 13     | 56082   | Daftari 615 BG II (ZC 2) | 23.8                                                        | R  | 13.1 | R  | 16.1 | R  | 19.4 | R  |
| 11     | 56083   | 22 SS 44 BG II           | 23.1                                                        | R  | 11.9 | R  | 14.9 | R  | 19.3 | R  |
| 9      | 56084   | YASH-8888 BG II          | 23.5                                                        | R  | 12.5 | R  | 13.3 | R  | 18.0 | R  |
| 7      | 56085   | US 752 BGII              | 24.3                                                        | R  | 12.2 | R  | 14.0 | R  | 19.9 | R  |
| 4      | 56086   | DC5302 BGII              | 23.6                                                        | R  | 12.6 | R  | 11.3 | R  | 19.5 | R  |
| 15     | 56087   | NCS 2552 Bt2             | 25.2                                                        | R  | 12.5 | R  | 11.9 | R  | 19.1 | R  |

Table 14(c): Initial Evaluation Trial of Compact Intra-Hirsutum Hybrids – Rainfed (IET Compact RF) under Protected conditions

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |
|--------|---------|--------------------------|-----------------------------------------------------------|----|------|----|
|        |         |                          | Ankur , Atmakur (Warangal)                                |    |      |    |
|        |         |                          | TSV                                                       |    | HLS  |    |
|        |         |                          | PDI                                                       | DR | PDI  | DR |
| 14     | 56071   | DACH 91S19 BGII          | 10.0                                                      | R  | 37.0 | MR |
| 10     | 56072   | DACH 84S48 BGII          | 13.6                                                      | R  | 16.3 | R  |
| 6      | 56073   | GCH-5508 Bt2             | 13.9                                                      | R  | 15.8 | R  |
| 3      | 56074   | CCH 527 BGII             | 9.6                                                       | R  | 18.7 | R  |
| 1      | 56075   | PCH 2997 Bt2             | 11.3                                                      | R  | 10.5 | R  |
| 17     | 56076   | ARCH 2527 BGII           | 9.6                                                       | R  | 35.8 | MR |
| 12     | 56077   | ARCH 2526 BGII           | 11.3                                                      | R  | 32.9 | MR |
| 8      | 56078   | CCH-501 Bt2              | 13.2                                                      | R  | 19.0 | R  |
| 5      | 56079   | YASH-2222 BG II          | 13.0                                                      | R  | 16.3 | R  |
| 2      | 56080   | C9404 BG-II              | 12.0                                                      | R  | 29.4 | MR |
| 16     | 56081   | SP7679 BGII (ZC 1)       | 9.8                                                       | R  | 32.5 | MR |
| 13     | 56082   | Daftari 615 BG II (ZC 2) | 8.8                                                       | R  | 27.1 | MR |
| 11     | 56083   | 22 SS 44 BG II           | 13.1                                                      | R  | 11.1 | R  |
| 9      | 56084   | YASH-8888 BG II          | 12.5                                                      | R  | 37.6 | MR |
| 7      | 56085   | US 752 BGII              | 14.3                                                      | R  | 18.4 | R  |
| 4      | 56086   | DC5302 BGII              | 11.8                                                      | R  | 32.9 | MR |
| 15     | 56087   | NCS 2552 Bt2             | 10.1                                                      | R  | 12.4 | R  |

## Advanced Evaluation Trial of Compact Intra-Hirsutum Bt Hybrids - Rainfed

### *Constitution of Trial*

The trial was constituted with six Bt cotton hybrids containing MON 15985 event sponsored by various organization along with two different check hybrids at closer spacing and a zonal check hybrid at normal spacing as furnished below.

| S. No. | Code-I   | Code -II     | Entries                            | Sponsored by                 |
|--------|----------|--------------|------------------------------------|------------------------------|
| 1      | 5        | 56091        | KCH9287 BGII                       | Kaveri Seed Co Ltd           |
| 2      | 1        | 56092        | NCS 9531 Bt2                       | Nuziveedu Seeds Limited      |
| 3      | <b>8</b> | <b>56093</b> | <b>Daftari 615 BG II (ZC 2)</b>    |                              |
| 4      | 3        | 56094        | BIO6910 BGII                       | Bioseeds                     |
| 5      | 7        | 56095        | PCH 7544 Bt2                       | Prabhat Agri Biotech Limited |
| 6      | <b>2</b> | <b>56096</b> | <b>SP7679 BGII (ZC 1)</b>          |                              |
| 7      | 4        | 56097        | NCS 9955 Bt2                       | Nuziveedu Seeds Limited      |
| 8      | 6        | 56098        | RCH 1119BGII                       | Rasi Seeds                   |
| 9      |          |              | <b>SP7679 BGII (ZC 1) (normal)</b> |                              |

The trial was conducted in eight locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, Perambalur, Hyderabad (Kaveri), Sripuram (Pravardhan), and Parigi (Nuziveedu).

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** 90 x 15 cm was followed for the coded entries and the zonal check hybrid has been included under recommended spacing.

**Number of rows:** 6 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean         |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|--------------|
| 1      | KCH9287 BGII                       | 131.4   | 132.7    | 123.7   | 107.9      | 96.2               | 76.0               | 98.3                  | <b>109.5</b> |
| 2      | NCS 9531 Bt2                       | 117.5   | 133.7    | 125.8   | 109.8      | 99.7               | 76.0               | 99.0                  | <b>108.8</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 138.9   | 146.2    | 133.3   | 125.7      | 117.3              | 82.3               | 104.7                 | <b>121.2</b> |
| 4      | BIO6910 BGII                       | 119.9   | 140.1    | 129.2   | 113.9      | 96.2               | 86.7               | 103.3                 | <b>112.8</b> |
| 5      | PCH 7544 Bt2                       | 127.0   | 127.2    | 122.4   | 106.0      | 94.5               | 85.0               | 103.3                 | <b>109.3</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 126.3   | 140.5    | 115.7   | 110.8      | 94.6               | 84.0               | 104.0                 | <b>110.8</b> |
| 7      | NCS 9955 Bt2                       | 124.9   | 131.8    | 116.0   | 104.8      | 94.7               | 84.0               | 106.7                 | <b>109.0</b> |
| 8      | RCH 1119BGII                       | 103.3   | 124.1    | 116.0   | 81.1       | 84.5               | 76.3               | 90.3                  | <b>96.5</b>  |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 113.3   | 117.9    | 122.7   | 104.6      | 97.4               | 67.3               | 112.0                 | <b>105.0</b> |
|        | CD @ 5%                            | 18.5    | NS       | 17.8    | 16.7       | 8.7                |                    |                       |              |
|        | CV %                               | 8.7     | 11.2     | 8.4     | 9.7        | 14.6               |                    |                       |              |

**Number of monopodia in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean       |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|------------|
| 1      | KCH9287 BGII                       | 0.4     | 1.5      | 1.2     | 1.1        | 1.5                | 10.0               | 0.0                   | <b>2.2</b> |
| 2      | NCS 9531 Bt2                       | 0.5     | 1.4      | 2.0     | 1.3        | 1.1                | 14.0               | 1.0                   | <b>3.0</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 0.5     | 1.1      | 0.7     | 1.3        | 1.1                | 12.0               | 0.0                   | <b>2.4</b> |
| 4      | BIO6910 BGII                       | 0.2     | 0.8      | 1.0     | 0.4        | 1.1                | 13.0               | 1.0                   | <b>2.5</b> |
| 5      | PCH 7544 Bt2                       | 0.6     | 1.1      | 1.0     | 0.9        | 1.1                | 12.0               | 1.0                   | <b>2.5</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 0.7     | 2.2      | 1.1     | 0.9        | 1.2                | 13.0               | 0.0                   | <b>2.7</b> |
| 7      | NCS 9955 Bt2                       | 0.3     | 0.9      | 0.9     | 1.0        | 1.1                | 12.0               | 1.0                   | <b>2.5</b> |
| 8      | RCH 1119BGII                       | 0.5     | 1.1      | 0.8     | 1.1        | 2.0                | 11.0               | 1.0                   | <b>2.5</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 1.3     | 2.5      | 0.9     | 1.9        | 2.5                | 17.0               | 1.0                   | <b>3.9</b> |
|        | CD @ 5%                            | 0.3     | 1.0      | 0.3     | 1.0        | 14.9               |                    |                       |            |
|        | CV %                               | 36.1    | 43.1     | 17.2    | 55.6       | 0.4                |                    |                       |            |



### Number of sympodia in Advanced Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|-------------|
| 1      | KCH9287 BGII                       | 7.3     | 12.3     | 15.6    | 15.6       | 10.1               | 1.0                | 13.0                  | <b>10.7</b> |
| 2      | NCS 9531 Bt2                       | 8.9     | 14.5     | 16.7    | 16.0       | 12.1               | 1.0                | 16.0                  | <b>12.2</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 7.7     | 13.9     | 16.2    | 16.0       | 10.5               | 0.0                | 12.0                  | <b>10.9</b> |
| 4      | BIO6910 BGII                       | 9.7     | 14.7     | 15.8    | 15.8       | 10.7               | 0.0                | 15.0                  | <b>11.7</b> |
| 5      | PCH 7544 Bt2                       | 9.1     | 13.7     | 17.4    | 15.7       | 10.5               | 1.0                | 15.0                  | <b>11.8</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 8.5     | 14.2     | 15.2    | 16.1       | 11.5               | 0.0                | 13.0                  | <b>11.2</b> |
| 7      | NCS 9955 Bt2                       | 8.7     | 14.5     | 16.9    | 16.6       | 12.4               | 0.0                | 15.0                  | <b>12.0</b> |
| 8      | RCH 1119BGII                       | 8.3     | 13.1     | 15.6    | 12.2       | 11.7               | 0.0                | 13.0                  | <b>10.6</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 12.6    | 14.4     | 17.1    | 16.5       | 18.3               | 1.0                | 17.0                  | <b>13.8</b> |
|        | CD @ 5%                            | 1.9     | NS       | 1.9     | 1.9        | 12.5               |                    |                       |             |
|        | CV %                               | 12.1    | 13.1     | 6.8     | 7.5        | 2.6                |                    |                       |             |

### Boll weight (g) in Advanced Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean       |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|------------|
| 1      | KCH9287 BGII                       | 4.4     | 5.6      | 5.1     | 5.6        | 6.1                | 6.2                | 6.3                   | <b>5.6</b> |
| 2      | NCS 9531 Bt2                       | 4.5     | 5.8      | 5.2     | 6.1        | 5.4                | 6.3                | 6.0                   | <b>5.6</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 4.3     | 6.4      | 6.0     | 6.6        | 5.6                | 6.6                | 6.3                   | <b>6.0</b> |
| 4      | BIO6910 BGII                       | 4.5     | 5.5      | 5.2     | 5.8        | 5.9                | 6.0                | 5.8                   | <b>5.5</b> |
| 5      | PCH 7544 Bt2                       | 4.9     | 5.7      | 4.8     | 5.3        | 5.5                | 6.0                | 5.8                   | <b>5.4</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 4.5     | 5.6      | 6.7     | 6.2        | 5.4                | 6.2                | 5.8                   | <b>5.8</b> |
| 7      | NCS 9955 Bt2                       | 4.8     | 6.1      | 5.7     | 6.3        | 5.8                | 6.5                | 5.7                   | <b>5.8</b> |
| 8      | RCH 1119BGII                       | 4.8     | 5.7      | 5.4     | 5.1        | 5.6                | 5.8                | 5.5                   | <b>5.4</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 5.4     | 6.2      | 6.7     | 6.7        | 5.4                | 5.8                | 5.8                   | <b>6.0</b> |
|        | CD @ 5%                            | 0.4     | NS       | 0.4     | 0.8        | 3.7                |                    |                       |            |
|        | CV %                               | 4.9     | 7.9      | 4.5     | 8.6        | 0.4                |                    |                       |            |



**Number of bolls / plant in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|-------------|
| 1      | KCH9287 BGII                       | 11.3    | 10.1     | 8.0     | 13.2       | 17.3               | 11.0               | 19.0                  | <b>12.8</b> |
| 2      | NCS 9531 Bt2                       | 11.8    | 12.6     | 9.2     | 13.0       | 17.1               | 12.0               | 20.3                  | <b>13.7</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 9.1     | 11.1     | 9.0     | 10.8       | 14.0               | 11.0               | 16.3                  | <b>11.6</b> |
| 4      | BIO6910 BGII                       | 11.9    | 12.2     | 8.5     | 12.2       | 14.3               | 11.0               | 19.0                  | <b>12.7</b> |
| 5      | PCH 7544 Bt2                       | 13.0    | 14.0     | 9.2     | 14.3       | 15.3               | 13.0               | 17.7                  | <b>13.8</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 9.7     | 11.3     | 9.2     | 12.9       | 13.5               | 11.0               | 18.7                  | <b>12.3</b> |
| 7      | NCS 9955 Bt2                       | 13.4    | 12.6     | 8.1     | 14.6       | 16.7               | 13.0               | 18.3                  | <b>13.8</b> |
| 8      | RCH 1119BGII                       | 12.5    | 11.7     | 9.9     | 13.2       | 15.5               | 12.0               | 17.7                  | <b>13.2</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 19.1    | 20.7     | 10.3    | 19.4       | 23.0               | 25.0               | 22.3                  | <b>20.0</b> |
|        | CD @ 5%                            | 2.7     | 2.8      | 1.8     | 3.7        | 11.3               |                    |                       |             |
|        | CV %                               | 12.5    | 12.6     | 11.7    | 16.8       | 3.2                |                    |                       |             |

**Number of bolls / sq.m. in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean         |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|--------------|
| 1      | KCH9287 BGII                       | 71.7    | 98.7     | 59.5    | 131.3      | 128.4              | 76.0               | 126.0                 | <b>98.8</b>  |
| 2      | NCS 9531 Bt2                       | 67.0    | 102.7    | 68.1    | 110.0      | 126.4              | 85.0               | 146.0                 | <b>100.7</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 57.3    | 89.3     | 66.3    | 116.7      | 103.7              | 79.0               | 110.0                 | <b>88.9</b>  |
| 4      | BIO6910 BGII                       | 69.3    | 87.7     | 62.6    | 119.0      | 105.7              | 71.0               | 134.0                 | <b>92.8</b>  |
| 5      | PCH 7544 Bt2                       | 79.7    | 90.3     | 68.1    | 124.3      | 113.1              | 89.0               | 129.0                 | <b>99.1</b>  |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 64.7    | 103.7    | 68.1    | 118.0      | 99.8               | 65.0               | 127.0                 | <b>92.3</b>  |
| 7      | NCS 9955 Bt2                       | 95.7    | 91.7     | 59.8    | 116.0      | 124.0              | 93.0               | 134.0                 | <b>102.0</b> |
| 8      | RCH 1119BGII                       | 92.7    | 102.7    | 73.1    | 118.0      | 115.1              | 80.0               | 120.0                 | <b>100.2</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 71.0    | 82.3     | 19.0    | 68.0       | 170.4              | 44.0               | 40.0                  | <b>70.7</b>  |
|        | CD @ 5%                            | 8.6     | NS       | 13.6    | 23.9       | 11.3               |                    |                       |              |
|        | CV %                               | 11.0    | 13.9     | 13.0    | 13.2       | 23.7               |                    |                       |              |



**Lint Index (g) in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|------|
| 1      | KCH9287 BGII                       | 5.2     | 5.7      | 6.7     | 7.2        | 7.3                | 6.8                | 7.2                   | 6.6  |
| 2      | NCS 9531 Bt2                       | 5.3     | 5.4      | 6.5     | 8.3        | 5.5                | 7.0                | 6.7                   | 6.4  |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 5.2     | 5.2      | 6.1     | 6.8        | 4.6                | 5.7                | 4.8                   | 5.5  |
| 4      | BIO6910 BGII                       | 4.2     | 5.0      | 5.8     | 7.6        | 4.9                | 5.5                | 6.8                   | 5.7  |
| 5      | PCH 7544 Bt2                       | 6.9     | 5.5      | 6.1     | 6.7        | 6.4                | 6.5                | 7.8                   | 6.6  |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 6.5     | 6.3      | 7.9     | 8.4        | 6.3                | 7.5                | 7.2                   | 7.2  |
| 7      | NCS 9955 Bt2                       | 5.5     | 5.3      | 6.0     | 6.8        | 5.5                | 6.1                | 7.1                   | 6.0  |
| 8      | RCH 1119BGII                       | 4.9     | 6.0      | 6.9     | 7.7        | 5.6                | 7.2                | 7.3                   | 6.5  |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 5.7     | 6.4      | 7.9     | 8.8        | 6.5                | 6.9                | 7.0                   | 7.0  |
|        | CD @ 5%                            | 0.9     | 0.6      |         | 0.8        | 4.9                |                    |                       |      |
|        | CV %                               | 10.1    | 5.9      |         | 6.5        | 0.5                |                    |                       |      |

**Seed Index (g) in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|------|
| 1      | KCH9287 BGII                       | 8.2     | 9.4      | 10.3    | 10.8       | 11.3               | 10.1               | 12.1                  | 10.3 |
| 2      | NCS 9531 Bt2                       | 9.0     | 10.0     | 10.3    | 12.2       | 9.3                | 10.7               | 11.7                  | 10.5 |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 10.1    | 13.6     | 13.0    | 14.4       | 11.3               | 13.2               | 11.2                  | 12.4 |
| 4      | BIO6910 BGII                       | 8.4     | 9.5      | 10.4    | 12.6       | 9.7                | 10.5               | 12.5                  | 10.5 |
| 5      | PCH 7544 Bt2                       | 9.1     | 10.0     | 9.6     | 11.5       | 10.7               | 10.4               | 12.4                  | 10.5 |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 10.4    | 12.0     | 13.1    | 13.6       | 11.0               | 11.6               | 12.6                  | 12.0 |
| 7      | NCS 9955 Bt2                       | 9.8     | 11.9     | 11.2    | 12.9       | 10.7               | 12.0               | 13.0                  | 11.6 |
| 8      | RCH 1119BGII                       | 10.4    | 11.1     | 10.4    | 12.3       | 9.0                | 11.2               | 12.2                  | 10.9 |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 10.3    | 12.2     | 12.5    | 13.9       | 11.3               | 11.2               | 12.2                  | 11.9 |
|        | CD @ 5%                            | 1.2     | 1.3      |         | 0.7        | 4.9                |                    |                       |      |
|        | CV %                               | 7.3     | 6.7      |         | 3.5        | 0.9                |                    |                       |      |



**Ginning outturn (%) in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|-------------|
| 1      | KCH9287 BGII                       | 37.1    | 37.8     | 39.5    | 40.1       | 39.1               | 40.3               | 37.3                  | <b>38.7</b> |
| 2      | NCS 9531 Bt2                       | 37.1    | 34.9     | 38.8    | 40.4       | 37.2               | 39.4               | 36.4                  | <b>37.7</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 35.8    | 27.8     | 32.0    | 32.2       | 28.7               | 30.1               | 29.8                  | <b>30.9</b> |
| 4      | BIO6910 BGII                       | 33.1    | 34.4     | 35.8    | 37.6       | 33.5               | 34.5               | 35.1                  | <b>34.9</b> |
| 5      | PCH 7544 Bt2                       | 41.2    | 35.5     | 38.8    | 36.8       | 37.6               | 38.3               | 38.5                  | <b>38.1</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 39.2    | 34.4     | 37.7    | 38.2       | 36.3               | 39.3               | 36.4                  | <b>37.4</b> |
| 7      | NCS 9955 Bt2                       | 35.0    | 30.9     | 35.1    | 34.5       | 34.1               | 33.7               | 35.4                  | <b>34.1</b> |
| 8      | RCH 1119BGII                       | 32.2    | 35.2     | 39.7    | 38.6       | 38.2               | 39.1               | 37.3                  | <b>37.2</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 35.1    | 34.4     | 38.8    | 38.8       | 36.6               | 38.0               | 36.4                  | <b>36.9</b> |
|        | CD @ 5%                            | 2.3     | 1.8      |         | 2.7        | 1.5                |                    |                       |             |
|        | CV %                               | 3.7     | 3.1      |         | 4.4        | 0.9                |                    |                       |             |

**Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|-------------|
| 1      | KCH9287 BGII                       | 25.6    | 26.6     | 28.6    | 27.8       | 24.9               | 25.8               | 27.9                  | <b>26.7</b> |
| 2      | NCS 9531 Bt2                       | 27.4    | 28.1     | 30.3    | 29.7       | 27.8               | 29.1               | 29.1                  | <b>28.8</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 30.1    | 31.2     | 33.7    | 33.9       | 29.4               | 31.4               | 32.5                  | <b>31.7</b> |
| 4      | BIO6910 BGII                       | 26.3    | 26.0     | 28.5    | 28.8       | 25.5               | 27.4               | 27.6                  | <b>27.2</b> |
| 5      | PCH 7544 Bt2                       | 27.2    | 27.4     | 29.7    | 29.5       | 27.2               | 27.8               | 29.2                  | <b>28.3</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 28.0    | 27.5     | 30.1    | 29.2       | 27.3               | 27.5               | 27.9                  | <b>28.2</b> |
| 7      | NCS 9955 Bt2                       | 30.6    | 32.6     | 33.4    | 32.8       | 29.9               | 31.1               | 33.2                  | <b>31.9</b> |
| 8      | RCH 1119BGII                       | 27.4    | 27.2     | 28.2    | 28.3       | 27.0               | 27.5               | 28.2                  | <b>27.7</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 28.1    | 27.4     | 30.0    | 28.5       | 27.2               | 28.1               | 28.3                  | <b>28.2</b> |





### Uniformity index under HVI Mode in Advanced Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|-------------|
| 1      | KCH9287 BGII                       | 83.0    | 82.0     | 86.0    | 85.0       | 83.0               | 83.0               | 86.0                  | <b>84.0</b> |
| 2      | NCS 9531 Bt2                       | 82.0    | 84.0     | 86.0    | 85.0       | 84.0               | 84.0               | 84.0                  | <b>84.1</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 84.0    | 84.0     | 86.0    | 85.0       | 81.0               | 85.0               | 85.0                  | <b>84.3</b> |
| 4      | BIO6910 BGII                       | 83.0    | 82.0     | 86.0    | 86.0       | 82.0               | 83.0               | 86.0                  | <b>84.0</b> |
| 5      | PCH 7544 Bt2                       | 84.0    | 84.0     | 86.0    | 86.0       | 84.0               | 83.0               | 86.0                  | <b>84.7</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 84.0    | 83.0     | 86.0    | 86.0       | 84.0               | 84.0               | 86.0                  | <b>84.7</b> |
| 7      | NCS 9955 Bt2                       | 84.0    | 85.0     | 87.0    | 85.0       | 82.0               | 85.0               | 85.0                  | <b>84.7</b> |
| 8      | RCH 1119BGII                       | 83.0    | 83.0     | 86.0    | 85.0       | 84.0               | 83.0               | 86.0                  | <b>84.3</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 84.0    | 84.0     | 86.0    | 85.0       | 84.0               | 84.0               | 85.0                  | <b>84.6</b> |

### Micronaire under HVI Mode in Advanced Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean       |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|------------|
| 1      | KCH9287 BGII                       | 4.5     | 5.0      | 5.2     | 5.1        | 4.4                | 5.1                | 4.9                   | <b>4.9</b> |
| 2      | NCS 9531 Bt2                       | 3.9     | 4.8      | 4.1     | 4.6        | 3.7                | 3.8                | 4.4                   | <b>4.2</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 3.9     | 4.4      | 3.7     | 4.2        | 3.1                | 3.7                | 4.2                   | <b>3.9</b> |
| 4      | BIO6910 BGII                       | 4.2     | 4.5      | 3.7     | 4.5        | 3.5                | 4.1                | 4.2                   | <b>4.1</b> |
| 5      | PCH 7544 Bt2                       | 4.4     | 4.5      | 4.6     | 4.9        | 3.9                | 4.1                | 4.4                   | <b>4.4</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 4.5     | 4.7      | 4.8     | 5.1        | 4.4                | 4.6                | 4.7                   | <b>4.7</b> |
| 7      | NCS 9955 Bt2                       | 4.0     | 4.4      | 4.1     | 4.4        | 3.9                | 4.0                | 4.6                   | <b>4.2</b> |
| 8      | RCH 1119BGII                       | 4.3     | 4.6      | 4.4     | 4.7        | 4.4                | 4.6                | 4.6                   | <b>4.5</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 4.8     | 4.4      | 5.3     | 5.4        | 4.5                | 4.5                | 4.7                   | <b>4.8</b> |



### Tenacity under HVI Mode in Advanced Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|-------------|
| 1      | KCH9287 BGII                       | 26.3    | 28.3     | 28.4    | 27.8       | 24.7               | 25.0               | 28.5                  | <b>27.0</b> |
| 2      | NCS 9531 Bt2                       | 29.2    | 28.1     | 30.0    | 29.5       | 26.9               | 29.4               | 28.2                  | <b>28.8</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 30.8    | 33.6     | 32.3    | 30.4       | 27.3               | 31.7               | 30.3                  | <b>30.9</b> |
| 4      | BIO6910 BGII                       | 26.5    | 27.1     | 32.8    | 29.2       | 24.6               | 26.2               | 28.7                  | <b>27.9</b> |
| 5      | PCH 7544 Bt2                       | 28.4    | 29.1     | 31.1    | 28.7       | 27.0               | 29.4               | 29.8                  | <b>29.1</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 28.9    | 29.7     | 31.2    | 29.8       | 27.3               | 29.2               | 28.9                  | <b>29.3</b> |
| 7      | NCS 9955 Bt2                       | 31.1    | 32.3     | 31.3    | 30.1       | 28.1               | 30.8               | 30.0                  | <b>30.5</b> |
| 8      | RCH 1119BGII                       | 28.0    | 28.2     | 28.7    | 29.2       | 26.5               | 27.9               | 30.2                  | <b>28.4</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 29.4    | 29.5     | 29.1    | 30.0       | 27.7               | 30.9               | 29.4                  | <b>29.4</b> |

### Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean         |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|--------------|
| 1      | KCH9287 BGII                       | 17.27   | 27.78    | 6.69    | 19.03      | 26.72              | 17.08              | 11.93                 | <b>18.07</b> |
| 2      | NCS 9531 Bt2                       | 20.51   | 26.71    | 8.19    | 19.55      | 23.96              | 15.23              | 14.71                 | <b>18.41</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 15.70   | 21.04    | 9.89    | 19.91      | 18.11              | 13.43              | 10.80                 | <b>15.55</b> |
| 4      | BIO6910 BGII                       | 19.52   | 28.30    | 7.06    | 19.86      | 19.67              | 13.48              | 9.88                  | <b>16.82</b> |
| 5      | PCH 7544 Bt2                       | 22.34   | 31.57    | 14.02   | 26.85      | 24.98              | 18.00              | 13.37                 | <b>21.59</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 15.29   | 23.37    | 10.39   | 21.30      | 20.79              | 14.26              | 6.61                  | <b>16.00</b> |
| 7      | NCS 9955 Bt2                       | 27.61   | 30.20    | 15.63   | 21.71      | 25.05              | 20.63              | 13.43                 | <b>22.04</b> |
| 8      | RCH 1119BGII                       | 24.87   | 34.24    | 17.15   | 25.57      | 21.14              | 19.96              | 13.84                 | <b>22.40</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 15.07   | 18.85    | 6.03    | 9.41       | 15.28              | 9.67               | 4.47                  | <b>11.25</b> |
|        | CD @ 5%                            | 2.90    | 5.41     | 2.41    | 2.89       | 7.17               |                    |                       |              |
|        | CV %                               | 8.60    | 11.61    | 13.20   | 8.87       | 2.70               |                    |                       |              |



## Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of H X H hybrids

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad<br>(Kaveri) | Parigi<br>(Nuziveedu) | Sripuram<br>(Pravardhan) | Mean        |
|--------|------------------------------------|---------|----------|---------|------------|-----------------------|-----------------------|--------------------------|-------------|
| 1      | KCH9287 BGII                       | 2.45    | 2.61     | 11.16   | 2.26       | 8.24                  | 4.94                  | 2.98                     | <b>4.95</b> |
| 2      | NCS 9531 Bt2                       | 2.05    | 3.16     | 11.92   | 3.55       | 7.35                  | 6.48                  | 3.19                     | <b>5.39</b> |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 1.46    | 6.47     | 11.37   | 2.83       | 6.64                  | 4.32                  | 2.98                     | <b>5.15</b> |
| 4      | BIO6910 BGII                       | 1.58    | 3.23     | 8.83    | 4.17       | 6.58                  | 4.12                  | 2.16                     | <b>4.38</b> |
| 5      | PCH 7544 Bt2                       | 2.35    | 1.68     | 8.40    | 3.91       | 6.53                  | 5.68                  | 3.40                     | <b>4.56</b> |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 1.30    | 3.92     | 10.33   | 2.93       | 6.43                  | 6.43                  | 4.50                     | <b>5.12</b> |
| 7      | NCS 9955 Bt2                       | 3.11    | 4.77     | 9.51    | 2.42       | 8.13                  | 7.66                  | 3.03                     | <b>5.52</b> |
| 8      | RCH 1119BGII                       | 2.86    | 1.17     | 7.05    | 2.47       | 8.97                  | 4.99                  | 2.52                     | <b>4.29</b> |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 1.99    | 1.43     | 6.70    | 2.01       | 7.62                  | 4.99                  | 2.73                     | <b>3.92</b> |
|        | CD @ 5%                            | 0.52    | 0.75     | 1.92    | 0.93       | 13.18                 |                       |                          |             |
|        | CV %                               | 14.10   | 13.75    | 11.70   | 19.84      | 1.69                  |                       |                          |             |



**Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of H X H hybrids**

| S. No. | Entries                            | Mudhole | Adilabad | Dharwad | Perambalur | Hyderabad (Kaveri) | Parigi (Nuziveedu) | Sripuram (Pravardhan) | Mean         | Rank | % Inc over best check |
|--------|------------------------------------|---------|----------|---------|------------|--------------------|--------------------|-----------------------|--------------|------|-----------------------|
| 1      | KCH9287 BGII                       | 19.73   | 30.39    | 17.85   | 21.30      | 34.96              | 22.02              | 14.92                 | <b>23.02</b> | 5    | 9.0                   |
| 2      | NCS 9531 Bt2                       | 22.56   | 29.87    | 20.11   | 23.10      | 31.31              | 21.71              | 17.90                 | <b>23.79</b> | 4    | 12.7                  |
| 3      | <b>Daftari 615 BG II (ZC 2)</b>    | 17.16   | 27.51    | 21.26   | 22.74      | 24.75              | 17.75              | 13.79                 | <b>20.71</b> | 8    | -1.9                  |
| 4      | BIO6910 BGII                       | 21.10   | 31.52    | 15.89   | 24.02      | 26.24              | 17.59              | 12.04                 | <b>21.20</b> | 6    | 0.4                   |
| 5      | PCH 7544 Bt2                       | 24.69   | 33.26    | 22.42   | 30.76      | 31.52              | 23.68              | 16.77                 | <b>26.16</b> | 3    | 23.9                  |
| 6      | <b>SP7679 BGII (ZC 1)</b>          | 16.59   | 27.30    | 20.72   | 24.23      | 27.23              | 20.69              | 11.10                 | <b>21.12</b> | 7    | 0.0                   |
| 7      | NCS 9955 Bt2                       | 30.71   | 34.97    | 25.14   | 24.13      | 33.18              | 28.29              | 16.46                 | <b>27.55</b> | 1    | 30.5                  |
| 8      | RCH 1119BGII                       | 27.73   | 35.41    | 24.20   | 28.03      | 30.11              | 24.95              | 16.36                 | <b>26.68</b> | 2    | 26.3                  |
| 9      | <b>SP7679 BGII (ZC 1) (normal)</b> | 17.06   | 20.28    | 12.73   | 11.42      | 22.91              | 14.66              | 7.20                  | <b>15.18</b> | 9    | -28.1                 |
|        | CD @ 5%                            | 3.20    | 5.66     | 2.31    | 2.97       | 6.79               |                    |                       |              |      |                       |
|        | CV %                               | 8.40    | 10.87    | 6.70    | 7.98       | 3.42               |                    |                       |              |      |                       |



### Evaluation under Protected Condition for Insect pests

#### Reaction to Insect Pests

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Aphid**

| Name of Entry               | Aphid (Average of 3 leaves/plant) |      |    |      |      |             | Remark |
|-----------------------------|-----------------------------------|------|----|------|------|-------------|--------|
|                             | NA                                | DH   | PE | AD   | MU   | Mean        |        |
| KCH9287 BGII                | -                                 | 1.17 | -  | 0.50 | 2.72 | <b>1.46</b> | BETL   |
| NCS 9531 Bt2                | -                                 | 1.33 | -  | 0.61 | 3.67 | <b>1.87</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                 | 1.39 | -  | 0.38 | 4.15 | <b>1.97</b> | BETL   |
| BIO6910 BGII                | -                                 | 1.81 | -  | 0.34 | 2.72 | <b>1.62</b> | BETL   |
| PCH 7544 Bt2                | -                                 | 1.44 | -  | 0.25 | 2.52 | <b>1.40</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                 | 2.66 | -  | 0.41 | 3.40 | <b>2.16</b> | BETL   |
| NCS 9955 Bt2                | -                                 | 1.06 | -  | 0.60 | 3.33 | <b>1.66</b> | BETL   |
| RCH 1119BGII                | -                                 | 1.30 | -  | 0.31 | 3.40 | <b>1.67</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                 | -    | -  | 0.36 | 6.67 | <b>3.51</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions –Leafhopper**

| Name of Entry               | Leafhopper (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|-----------------------------|----------------------------------------|------|------|------|------|-------------|--------|
|                             | NA                                     | DH   | PE   | AD   | MU   | Mean        |        |
| KCH9287 BGII                | -                                      | 1.50 | 2.00 | 0.36 | 2.39 | <b>1.56</b> | BETL   |
| NCS 9531 Bt2                | -                                      | 1.40 | 4.00 | 0.44 | 1.24 | <b>1.77</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                      | 1.71 | 7.00 | 0.37 | 1.78 | <b>2.71</b> | BETL   |
| BIO6910 BGII                | -                                      | 1.53 | 4.67 | 0.96 | 1.33 | <b>2.12</b> | BETL   |
| PCH 7544 Bt2                | -                                      | 1.91 | 3.67 | 0.55 | 1.42 | <b>1.89</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                      | 1.28 | 5.00 | 0.39 | 1.96 | <b>2.16</b> | BETL   |
| NCS 9955 Bt2                | -                                      | 1.88 | 3.33 | 0.83 | 1.86 | <b>1.98</b> | BETL   |
| RCH 1119BGII                | -                                      | 1.39 | 3.00 | 0.75 | 1.06 | <b>1.55</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                      | -    | 4.33 | 0.31 | 1.51 | <b>2.05</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – JIG**

| Name of Entry               | JIG/plant |    |    |    |    |      | Remark |
|-----------------------------|-----------|----|----|----|----|------|--------|
|                             | NA        | DH | PE | AD | MU | Mean |        |
| KCH9287 BGII                | -         | I  | -  | -  | -  | I    |        |
| NCS 9531 Bt2                | -         | I  | -  | -  | -  | I    |        |
| Daftari 615 BG II (ZC 2)    | -         | I  | -  | -  | -  | I    |        |
| BIO6910 BGII                | -         | I  | -  | -  | -  | I    |        |
| PCH 7544 Bt2                | -         | I  | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1)          | -         | I  | -  | -  | -  | I    |        |
| NCS 9955 Bt2                | -         | I  | -  | -  | -  | I    |        |
| RCH 1119BGII                | -         | I  | -  | -  | -  | I    |        |
| SP7679 BGII (ZC 1) (normal) | -         | -  | -  | -  | -  | I    |        |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions –Thrips**

| Name of Entry               | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|-----------------------------|------------------------------------|------|------|------|------|-------------|-------------|
|                             | NA                                 | DH   | PE   | AD   | MU   | Mean        |             |
| KCH9287 BGII                | -                                  | 3.25 | 0.00 | 1.37 | 1.35 | <b>1.49</b> | <b>BETL</b> |
| NCS 9531 Bt2                | -                                  | 4.12 | 0.00 | 1.40 | 1.81 | <b>1.83</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | -                                  | 4.02 | 0.00 | 1.33 | 1.27 | <b>1.65</b> | <b>BETL</b> |
| BIO6910 BGII                | -                                  | 3.92 | 0.00 | 0.83 | 1.93 | <b>1.67</b> | <b>BETL</b> |
| PCH 7544 Bt2                | -                                  | 4.46 | 0.00 | 1.70 | 3.99 | <b>2.54</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | -                                  | 4.27 | 0.00 | 1.50 | 0.77 | <b>1.64</b> | <b>BETL</b> |
| NCS 9955 Bt2                | -                                  | 4.11 | 0.00 | 2.10 | 1.37 | <b>1.90</b> | <b>BETL</b> |
| RCH 1119BGII                | -                                  | 4.69 | 0.00 | 1.47 | 4.17 | <b>2.58</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                  | -    | 0.00 | 1.60 | 4.70 | <b>2.10</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry               | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|-----------------------------|--------------------------------------|------|------|------|------|-------------|-------------|
|                             | NA                                   | DH   | PE   | AD   | MU   | Mean        |             |
| KCH9287 BGII                | -                                    | 0.70 | 0.33 | 0.30 | 0.93 | <b>0.57</b> | <b>BETL</b> |
| NCS 9531 Bt2                | -                                    | 0.65 | 0.33 | 0.23 | 0.22 | <b>0.36</b> | <b>BETL</b> |
| Daftari 615 BG II (ZC 2)    | -                                    | 0.64 | 0.00 | 0.20 | 0.26 | <b>0.27</b> | <b>BETL</b> |
| BIO6910 BGII                | -                                    | 0.77 | 0.00 | 0.23 | 0.56 | <b>0.39</b> | <b>BETL</b> |
| PCH 7544 Bt2                | -                                    | 0.59 | 0.33 | 0.30 | 0.33 | <b>0.39</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1)          | -                                    | 0.71 | 0.67 | 0.37 | 0.45 | <b>0.55</b> | <b>BETL</b> |
| NCS 9955 Bt2                | -                                    | 0.67 | 0.33 | 0.77 | 0.37 | <b>0.54</b> | <b>BETL</b> |
| RCH 1119BGII                | -                                    | 0.67 | 0.33 | 0.43 | 0.67 | <b>0.53</b> | <b>BETL</b> |
| SP7679 BGII (ZC 1) (normal) | -                                    | -    | 0.00 | 0.37 | 0.56 | <b>0.31</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry               | Natural Enemies (No./plant) |      |      |    |    |             | Remark |
|-----------------------------|-----------------------------|------|------|----|----|-------------|--------|
|                             | NA                          | DH   | PE   | AD | MU | Mean        |        |
| KCH9287 BGII                | -                           | 0.56 | 0.00 | -  | -  | <b>0.28</b> |        |
| NCS 9531 Bt2                | -                           | 0.59 | 0.00 | -  | -  | <b>0.30</b> |        |
| Daftari 615 BG II (ZC 2)    | -                           | 0.58 | 0.00 | -  | -  | <b>0.29</b> |        |
| BIO6910 BGII                | -                           | 0.73 | 0.00 | -  | -  | <b>0.37</b> |        |
| PCH 7544 Bt2                | -                           | 0.65 | 0.00 | -  | -  | <b>0.32</b> |        |
| SP7679 BGII (ZC 1)          | -                           | 0.87 | 0.00 | -  | -  | <b>0.43</b> |        |
| NCS 9955 Bt2                | -                           | 0.96 | 0.00 | -  | -  | <b>0.48</b> |        |
| RCH 1119BGII                | -                           | 0.64 | 0.00 | -  | -  | <b>0.32</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                           | -    | 0.00 | -  | -  | <b>0.00</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions– *Helicoverpa armigera***

| Name of Entry               | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |    |      | Remark |
|-----------------------------|---------------------------------------------|------|------|------|----|------|--------|
|                             | NA                                          | DH   | PE   | AD   | MU | Mean |        |
| KCH9287 BGII                | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9531 Bt2                | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO6910 BGII                | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 7544 Bt2                | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9955 Bt2                | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1119BGII                | -                                           | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                           | -    | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry               | Spotted Bollworms (No. /5 plants) |      |      |      |    |      | Remark |
|-----------------------------|-----------------------------------|------|------|------|----|------|--------|
|                             | NA                                | DH   | PE   | AD   | MU | Mean |        |
| KCH9287 BGII                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9531 Bt2                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO6910 BGII                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 7544 Bt2                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9955 Bt2                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1119BGII                | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                 | -    | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry               | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |    |      | Remark |
|-----------------------------|------------------------------------------|------|------|------|----|------|--------|
|                             | NA                                       | DH   | PE   | AD   | MU | Mean |        |
| KCH9287 BGII                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9531 Bt2                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO6910 BGII                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 7544 Bt2                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9955 Bt2                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1119BGII                | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                        | -    | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry               | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |             | Remark |
|-----------------------------|---------------------------------------------------------|------|------|------|----|-------------|--------|
|                             | NA                                                      | DH   | PE   | AD#  | MU | Mean        |        |
| KCH9287 BGII                | -                                                       | 0.67 | 1.20 | 0.73 | -  | <b>0.87</b> | BETL   |
| NCS 9531 Bt2                | -                                                       | 0.44 | 1.33 | 0.60 | -  | <b>0.79</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                                       | 0.89 | 1.33 | 1.13 | -  | <b>1.12</b> | BETL   |
| BIO6910 BGII                | -                                                       | 0.67 | 2.33 | 1.40 | -  | <b>1.47</b> | BETL   |
| PCH 7544 Bt2                | -                                                       | 0.44 | 0.67 | 0.87 | -  | <b>0.66</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                                       | 1.00 | 1.33 | 0.80 | -  | <b>1.04</b> | BETL   |
| NCS 9955 Bt2                | -                                                       | 0.33 | 1.30 | 0.80 | -  | <b>0.81</b> | BETL   |
| RCH 1119BGII                | -                                                       | 1.00 | 1.33 | 0.27 | -  | <b>0.87</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                                       | -    | 2.00 | 1.00 | -  | <b>1.50</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry               | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |             | Remark |
|-----------------------------|-----------------------------------------|------|----|------|----|-------------|--------|
|                             | NA                                      | DH   | PE | AD   | MU | Mean        |        |
| KCH9287 BGII                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| NCS 9531 Bt2                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| BIO6910 BGII                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| PCH 7544 Bt2                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1)          | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| NCS 9955 Bt2                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| RCH 1119BGII                | -                                       | 0.00 | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                       | -    | -  | 0.00 | -  | <b>0.00</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry               | Green Boll Damage (%) /10 bolls destructive sampling |       |    |       |    |              | Remark |
|-----------------------------|------------------------------------------------------|-------|----|-------|----|--------------|--------|
|                             | NA                                                   | DH    | PE | AD    | MU | Mean         |        |
| KCH9287 BGII                | -                                                    | 5.56  | -  | 25.33 | -  | <b>15.45</b> | AETL   |
| NCS 9531 Bt2                | -                                                    | 7.78  | -  | 24.67 | -  | <b>16.23</b> | AETL   |
| Daftari 615 BG II (ZC 2)    | -                                                    | 12.22 | -  | 26.67 | -  | <b>19.45</b> | AETL   |
| BIO6910 BGII                | -                                                    | 6.67  | -  | 32.00 | -  | <b>19.34</b> | AETL   |
| PCH 7544 Bt2                | -                                                    | 8.89  | -  | 30.00 | -  | <b>19.45</b> | AETL   |
| SP7679 BGII (ZC 1)          | -                                                    | 13.33 | -  | 25.33 | -  | <b>19.33</b> | AETL   |
| NCS 9955 Bt2                | -                                                    | 5.56  | -  | 22.00 | -  | <b>13.78</b> | AETL   |
| RCH 1119BGII                | -                                                    | 11.11 | -  | 14.00 | -  | <b>12.56</b> | AETL   |
| SP7679 BGII (ZC 1) (normal) | -                                                    | -     | -  | 28.67 | -  | <b>28.67</b> | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry               | Open Boll Damage (%) |       |      |       |    |              | Remark |
|-----------------------------|----------------------|-------|------|-------|----|--------------|--------|
|                             | NA                   | DH    | PE   | AD    | MU | Mean         |        |
| KCH9287 BGII                | -                    | 9.35  | 3.00 | 16.67 | -  | <b>9.67</b>  |        |
| NCS 9531 Bt2                | -                    | 8.10  | 7.00 | 15.00 | -  | <b>10.03</b> |        |
| Daftari 615 BG II (ZC 2)    | -                    | 10.19 | 6.00 | 16.67 | -  | <b>10.95</b> |        |
| BIO6910 BGII                | -                    | 8.75  | 2.00 | 18.33 | -  | <b>9.69</b>  |        |
| PCH 7544 Bt2                | -                    | 9.78  | 7.00 | 20.00 | -  | <b>12.26</b> |        |
| SP7679 BGII (ZC 1)          | -                    | 11.58 | 4.00 | 16.67 | -  | <b>10.75</b> |        |
| NCS 9955 Bt2                | -                    | 6.01  | 3.00 | 16.67 | -  | <b>8.56</b>  |        |
| RCH 1119BGII                | -                    | 10.33 | 3.00 | 10.00 | -  | <b>7.78</b>  |        |
| SP7679 BGII (ZC 1) (normal) | -                    | -     | 3.00 | 17.50 | -  | <b>10.25</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry               | Locule Damage (%) |       |      |      |    |             | Remark |
|-----------------------------|-------------------|-------|------|------|----|-------------|--------|
|                             | NA                | DH    | PE   | AD   | MU | Mean        |        |
| KCH9287 BGII                | -                 | 7.16  | 1.00 | 7.33 | -  | <b>5.16</b> |        |
| NCS 9531 Bt2                | -                 | 5.11  | 3.00 | 7.50 | -  | <b>5.20</b> |        |
| Daftari 615 BG II (ZC 2)    | -                 | 6.94  | 2.00 | 8.17 | -  | <b>5.70</b> |        |
| BIO6910 BGII                | -                 | 6.28  | 1.00 | 5.17 | -  | <b>4.15</b> |        |
| PCH 7544 Bt2                | -                 | 5.83  | 3.00 | 6.33 | -  | <b>5.05</b> |        |
| SP7679 BGII (ZC 1)          | -                 | 10.44 | 2.00 | 8.67 | -  | <b>7.04</b> |        |
| NCS 9955 Bt2                | -                 | 4.39  | 1.00 | 7.50 | -  | <b>4.30</b> |        |
| RCH 1119BGII                | -                 | 7.66  | 1.00 | 2.67 | -  | <b>3.78</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                 | -     | 1.00 | 8.00 | -  | <b>4.50</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry               | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|-----------------------------|------------------------------------|------|------|------|------|-------------|--------|
|                             | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| KCH9287 BGII                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NCS 9531 Bt2                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Daftari 615 BG II (ZC 2)    | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| BIO6910 BGII                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| PCH 7544 Bt2                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SP7679 BGII (ZC 1)          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NCS 9955 Bt2                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| RCH 1119BGII                | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                                  | -    | 6.00 | 4.00 | 4.00 | <b>4.67</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 15(a): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids – Rainfed (AET Compact RF) under Protected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): protected conditions |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | UAS Dharwad                                               |    |      |    |      |    |      |    |
|        |         |                          | ALB                                                       |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 5      | 56091   | KCH9287 BGII             | 23.3                                                      | R  | 10.0 | R  | 16.3 | R  | 17.9 | R  |
| 1      | 56092   | NCS 9531 Bt2             | 22.8                                                      | R  | 8.5  | R  | 16.3 | R  | 17.8 | R  |
| 8      | 56093   | Daftari 615 BG II (ZC 2) | 22.5                                                      | R  | 10.0 | R  | 17.2 | R  | 17.2 | R  |
| 3      | 56094   | BIO6910 BGII             | 21.5                                                      | R  | 9.7  | R  | 18.8 | R  | 19.2 | R  |
| 7      | 56095   | PCH 7544 Bt2             | 21.9                                                      | R  | 10.0 | R  | 17.3 | R  | 18.7 | R  |
| 2      | 56096   | SP7679 BGII (ZC 1)       | 21.8                                                      | R  | 9.5  | R  | 16.6 | R  | 18.3 | R  |
| 4      | 56097   | NCS 9955 Bt2             | 23.5                                                      | R  | 8.3  | R  | 19.2 | R  | 18.1 | R  |
| 6      | 56098   | RCH 1119BGII             | 21.9                                                      | R  | 9.3  | R  | 16.7 | R  | 17.9 | R  |



## Evaluation under Unprotected Condition for Insect pests

### Reaction to Insect Pests

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry               | Aphid (Average of 3 leaves/plant) |      |      |       |             | Remark |
|-----------------------------|-----------------------------------|------|------|-------|-------------|--------|
|                             | DH                                | PE   | AD   | MU    | Mean        |        |
| KCH9287 BGII                | 7.64                              | 1.00 | 1.25 | 4.44  | <b>3.58</b> | BETL   |
| NCS 9531 Bt2                | 8.51                              | 1.00 | 1.49 | 6.00  | <b>4.25</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | 8.76                              | 1.00 | 1.38 | 6.77  | <b>4.48</b> | BETL   |
| BIO6910 BGII                | 8.33                              | 1.33 | 1.60 | 4.44  | <b>3.93</b> | BETL   |
| PCH 7544 Bt2                | 8.76                              | 1.00 | 1.37 | 4.11  | <b>3.81</b> | BETL   |
| SP7679 BGII (ZC 1)          | 10.22                             | 0.33 | 1.20 | 5.55  | <b>4.33</b> | BETL   |
| NCS 9955 Bt2                | 9.02                              | 1.00 | 2.25 | 5.44  | <b>4.43</b> | BETL   |
| RCH 1119BGII                | 8.33                              | 1.33 | 1.22 | 5.55  | <b>4.11</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                 | 1.33 | 0.87 | 10.88 | <b>4.36</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry               | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark |
|-----------------------------|----------------------------------------|------|------|------|-------------|--------|
|                             | DH                                     | PE   | AD   | MU   | Mean        |        |
| KCH9287 BGII                | 2.36                                   | 6.33 | 0.31 | 3.88 | <b>3.22</b> | BETL   |
| NCS 9531 Bt2                | 2.27                                   | 6.00 | 0.63 | 1.69 | <b>2.65</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | 3.56                                   | 5.67 | 0.44 | 2.70 | <b>3.09</b> | BETL   |
| BIO6910 BGII                | 2.49                                   | 5.33 | 0.69 | 1.86 | <b>2.59</b> | BETL   |
| PCH 7544 Bt2                | 2.49                                   | 6.33 | 0.33 | 2.03 | <b>2.79</b> | BETL   |
| SP7679 BGII (ZC 1)          | 3.67                                   | 9.33 | 0.31 | 3.05 | <b>4.09</b> | BETL   |
| NCS 9955 Bt2                | 3.30                                   | 7.33 | 0.69 | 2.87 | <b>3.55</b> | BETL   |
| RCH 1119BGII                | 1.76                                   | 5.00 | 0.43 | 1.35 | <b>2.13</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                      | 8.00 | 0.31 | 2.19 | <b>3.50</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry               | JIG/plant |    |    |    |           | Remark |
|-----------------------------|-----------|----|----|----|-----------|--------|
|                             | DH        | PE | AD | MU | Mean      |        |
| KCH9287 BGII                | I         | -  | -  | -  | <b>I</b>  |        |
| NCS 9531 Bt2                | I         | -  | -  | -  | <b>I</b>  |        |
| Daftari 615 BG II (ZC 2)    | I         | -  | -  | -  | <b>I</b>  |        |
| BIO6910 BGII                | I         | -  | -  | -  | <b>I</b>  |        |
| PCH 7544 Bt2                | I         | -  | -  | -  | <b>I</b>  |        |
| SP7679 BGII (ZC 1)          | II        | -  | -  | -  | <b>II</b> |        |
| NCS 9955 Bt2                | II        | -  | -  | -  | <b>II</b> |        |
| RCH 1119BGII                | I         | -  | -  | -  | <b>I</b>  |        |
| SP7679 BGII (ZC 1) (normal) | -         | -  | -  | -  | <b>-</b>  |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry               | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark |
|-----------------------------|------------------------------------|------|------|------|-------------|--------|
|                             | DH                                 | PE   | AD   | MU   | Mean        |        |
| KCH9287 BGII                | 15.53                              | 1.67 | 2.21 | 1.63 | <b>5.26</b> | BETL   |
| NCS 9531 Bt2                | 22.73                              | 3.33 | 2.55 | 2.19 | <b>7.70</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | 18.73                              | 2.33 | 1.97 | 1.54 | <b>6.14</b> | BETL   |
| BIO6910 BGII                | 17.38                              | 2.33 | 1.00 | 2.34 | <b>5.76</b> | BETL   |
| PCH 7544 Bt2                | 20.33                              | 3.00 | 2.55 | 4.84 | <b>7.68</b> | BETL   |
| SP7679 BGII (ZC 1)          | 16.38                              | 2.00 | 2.99 | 3.55 | <b>6.23</b> | BETL   |
| NCS 9955 Bt2                | 19.22                              | 3.33 | 2.87 | 1.67 | <b>6.77</b> | BETL   |
| RCH 1119BGII                | 16.51                              | 3.67 | 2.74 | 5.06 | <b>6.99</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                  | 3.67 | 0.80 | 5.70 | <b>3.39</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry               | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|-----------------------------|--------------------------------------|------|------|------|-------------|--------|
|                             | DH                                   | PE   | AD   | MU   | Mean        |        |
| KCH9287 BGII                | 0.98                                 | 0.33 | 0.20 | 1.32 | <b>0.71</b> | BETL   |
| NCS 9531 Bt2                | 1.03                                 | 0.67 | 0.22 | 0.32 | <b>0.56</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.56                                 | 0.00 | 0.15 | 0.37 | <b>0.27</b> | BETL   |
| BIO6910 BGII                | 0.93                                 | 0.67 | 0.27 | 0.79 | <b>0.67</b> | BETL   |
| PCH 7544 Bt2                | 0.93                                 | 0.33 | 0.35 | 0.48 | <b>0.52</b> | BETL   |
| SP7679 BGII (ZC 1)          | 0.56                                 | 1.00 | 0.27 | 0.63 | <b>0.62</b> | BETL   |
| NCS 9955 Bt2                | 1.22                                 | 0.33 | 0.22 | 0.53 | <b>0.58</b> | BETL   |
| RCH 1119BGII                | 1.13                                 | 0.33 | 0.15 | 0.95 | <b>0.64</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                    | 0.33 | 0.13 | 0.79 | <b>0.42</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry               | Natural Enemies (No./plant) |      |      |    |             | Remark |
|-----------------------------|-----------------------------|------|------|----|-------------|--------|
|                             | DH                          | PE   | AD   | MU | Mean        |        |
| KCH9287 BGII                | 1.03                        | 0.00 | 0.07 | -  | <b>0.37</b> |        |
| NCS 9531 Bt2                | 1.19                        | 0.00 | 0.07 | -  | <b>0.42</b> |        |
| Daftari 615 BG II (ZC 2)    | 0.89                        | 0.00 | 0.07 | -  | <b>0.32</b> |        |
| BIO6910 BGII                | 0.80                        | 0.00 | 0.07 | -  | <b>0.29</b> |        |
| PCH 7544 Bt2                | 0.93                        | 0.00 | 0.00 | -  | <b>0.31</b> |        |
| SP7679 BGII (ZC 1)          | 1.33                        | 0.00 | 0.07 | -  | <b>0.47</b> |        |
| NCS 9955 Bt2                | 1.59                        | 0.00 | 0.00 | -  | <b>0.53</b> |        |
| RCH 1119BGII                | 1.21                        | 0.00 | 0.07 | -  | <b>0.43</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                           | 0.00 | 0.00 | -  | <b>0.00</b> |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry               | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |    |      | Remark |
|-----------------------------|---------------------------------------------|------|------|----|------|--------|
|                             | DH                                          | PE   | AD   | MU | Mean |        |
| KCH9287 BGII                | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9531 Bt2                | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO6910 BGII                | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 7544 Bt2                | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9955 Bt2                | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1119BGII                | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                           | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms**

| Name of Entry               | Spotted Bollworms (No. /5 plants) |      |      |    |      | Remark |
|-----------------------------|-----------------------------------|------|------|----|------|--------|
|                             | DH                                | PE   | AD   | MU | Mean |        |
| KCH9287 BGII                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9531 Bt2                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO6910 BGII                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 7544 Bt2                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9955 Bt2                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1119BGII                | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                 | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry               | <i>Spodoptera litura</i> (No. /5 plants) |      |      |    |      | Remark |
|-----------------------------|------------------------------------------|------|------|----|------|--------|
|                             | DH                                       | PE   | AD   | MU | Mean |        |
| KCH9287 BGII                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9531 Bt2                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| BIO6910 BGII                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PCH 7544 Bt2                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NCS 9955 Bt2                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| RCH 1119BGII                | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry               | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |    |             | Remark |
|-----------------------------|---------------------------------------------------------|------|------|----|-------------|--------|
|                             | DH                                                      | PE   | AD#  | MU | Mean        |        |
| KCH9287 BGII                | 3.89                                                    | 1.45 | 0.00 | -  | <b>1.78</b> | AETL   |
| NCS 9531 Bt2                | 2.11                                                    | 2.45 | 0.00 | -  | <b>1.52</b> | AETL   |
| Daftari 615 BG II (ZC 2)    | 2.22                                                    | 0.79 | 1.40 | -  | <b>1.47</b> | AETL   |
| BIO6910 BGII                | 1.33                                                    | 1.45 | 0.60 | -  | <b>1.13</b> | AETL   |
| PCH 7544 Bt2                | 1.78                                                    | 1.32 | 1.20 | -  | <b>1.43</b> | AETL   |
| SP7679 BGII (ZC 1)          | 3.89                                                    | 1.45 | 0.80 | -  | <b>2.05</b> | AETL   |
| NCS 9955 Bt2                | 2.33                                                    | 1.42 | 0.40 | -  | <b>1.38</b> | AETL   |
| RCH 1119BGII                | 2.22                                                    | 1.45 | 0.20 | -  | <b>1.29</b> | AETL   |
| SP7679 BGII (ZC 1) (normal) | -                                                       | 2.12 | 0.40 | -  | <b>1.26</b> | AETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole, # Based on 5 observations

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry               | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |             | Remark |
|-----------------------------|-----------------------------------------|----|------|----|-------------|--------|
|                             | DH                                      | PE | AD   | MU | Mean        |        |
| KCH9287 BGII                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| NCS 9531 Bt2                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| Daftari 615 BG II (ZC 2)    | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| BIO6910 BGII                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| PCH 7544 Bt2                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1)          | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| NCS 9955 Bt2                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| RCH 1119BGII                | 0.00                                    | -  | 0.00 | -  | <b>0.00</b> | BETL   |
| SP7679 BGII (ZC 1) (normal) | -                                       | -  | 0.00 | -  | <b>0.00</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry               | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |              | Remark |
|-----------------------------|-------------------------------------------------------|----|-------|----|--------------|--------|
|                             | DH                                                    | PE | AD    | MU | Mean         |        |
| KCH9287 BGII                | 18.89                                                 | -  | 16.00 | -  | <b>17.45</b> | AETL   |
| NCS 9531 Bt2                | 17.78                                                 | -  | 26.00 | -  | <b>21.89</b> | AETL   |
| Daftari 615 BG II (ZC 2)    | 17.78                                                 | -  | 20.00 | -  | <b>18.89</b> | AETL   |
| BIO6910 BGII                | 12.22                                                 | -  | 32.00 | -  | <b>22.11</b> | AETL   |
| PCH 7544 Bt2                | 17.78                                                 | -  | 26.00 | -  | <b>21.89</b> | AETL   |
| SP7679 BGII (ZC 1)          | 23.33                                                 | -  | 30.00 | -  | <b>26.67</b> | AETL   |
| NCS 9955 Bt2                | 13.33                                                 | -  | 36.00 | -  | <b>24.67</b> | AETL   |
| RCH 1119BGII                | 22.22                                                 | -  | 20.00 | -  | <b>21.11</b> | AETL   |
| SP7679 BGII (ZC 1) (normal) | -                                                     | -  | 28.00 | -  | <b>28.00</b> | AETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry               | Open Boll Damage (%) |       |       |    |              | Remark |
|-----------------------------|----------------------|-------|-------|----|--------------|--------|
|                             | DH                   | PE    | AD    | MU | Mean         |        |
| KCH9287 BGII                | 12.45                | 5.00  | 10.00 | -  | <b>9.15</b>  |        |
| NCS 9531 Bt2                | 10.07                | 9.00  | 18.00 | -  | <b>12.36</b> |        |
| Daftari 615 BG II (ZC 2)    | 12.82                | 10.00 | 12.00 | -  | <b>11.61</b> |        |
| BIO6910 BGII                | 13.20                | 5.00  | 15.00 | -  | <b>11.07</b> |        |
| PCH 7544 Bt2                | 12.02                | 8.00  | 15.00 | -  | <b>11.67</b> |        |
| SP7679 BGII (ZC 1)          | 14.39                | 6.00  | 18.00 | -  | <b>12.80</b> |        |
| NCS 9955 Bt2                | 9.34                 | 7.00  | 20.00 | -  | <b>12.11</b> |        |
| RCH 1119BGII                | 13.34                | 9.00  | 10.00 | -  | <b>10.78</b> |        |
| SP7679 BGII (ZC 1) (normal) | -                    | 7.00  | 15.00 | -  | <b>11.00</b> |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced H X H (Compact) trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry               | Locule Damage (%) |      |       |    |              | Remark |
|-----------------------------|-------------------|------|-------|----|--------------|--------|
|                             | DH                | PE   | AD    | MU | Mean         |        |
| KCH9287 BGII                | 10.20             | 3.00 | 9.50  | -  | <b>7.57</b>  |        |
| NCS 9531 Bt2                | 10.61             | 4.00 | 16.00 | -  | <b>10.20</b> |        |
| Daftari 615 BG II (ZC 2)    | 12.16             | 5.00 | 13.00 | -  | <b>10.05</b> |        |
| BIO6910 BGII                | 10.55             | 2.00 | 21.00 | -  | <b>11.18</b> |        |
| PCH 7544 Bt2                | 11.67             | 3.00 | 18.50 | -  | <b>11.06</b> |        |
| SP7679 BGII (ZC 1)          | 14.89             | 2.00 | 17.50 | -  | <b>11.46</b> |        |
| NCS 9955 Bt2                | 7.44              | 4.00 | 24.50 | -  | <b>11.98</b> |        |
| RCH 1119BGII                | 11.33             | 3.00 | 14.50 | -  | <b>9.61</b>  |        |
| SP7679 BGII (ZC 1) (normal) | -                 | 3.00 | 17.00 | -  | <b>10.00</b> |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 15(b): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids – Rainfed (AET Compact RF) under Unprotected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |
|--------|---------|--------------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                          | UAS Dharwad                                                 |    |      |    |      |    |      |    |
|        |         |                          | ALB                                                         |    | BLB  |    | GM   |    | Rust |    |
|        |         |                          | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 5      | 56091   | KCH9287 BGII             | 25.3                                                        | MR | 9.6  | R  | 13.1 | R  | 15.9 | R  |
| 1      | 56092   | NCS 9531 Bt2             | 25.1                                                        | MR | 8.8  | R  | 13.7 | R  | 16.8 | R  |
| 8      | 56093   | Daftari 615 BG II<br>(2) | 26.1                                                        | MR | 9.5  | R  | 12.7 | R  | 16.8 | R  |
| 3      | 56094   | BIO6910 BGII             | 24.5                                                        | R  | 10.0 | R  | 13.3 | R  | 16.8 | R  |
| 7      | 56095   | PCH 7544 Bt2             | 24.5                                                        | R  | 9.5  | R  | 14.0 | R  | 13.3 | R  |
| 2      | 56096   | SP7679 BGII (ZC          | 26.1                                                        | MR | 9.5  | R  | 15.3 | R  | 16.9 | R  |
| 4      | 56097   | NCS 9955 Bt2             | 25.6                                                        | MR | 8.1  | R  | 14.9 | R  | 16.7 | R  |
| 6      | 56098   | RCH 1119BGII             | 26.4                                                        | MR | 8.6  | R  | 13.3 | R  | 16.6 | R  |





**Table 15(c): Advanced Evaluation Trial-I of Compact Intra-Hirsutum Hybrids- Rainfed (AET Compact RF) under Protected and Unprotected conditions**

| Code-I | Code-II | Entries                  | Average PDI & Disease Reaction (DR):<br>Protected conditions |    |     |    |      |    |     |    | Average PDI & Disease Reaction (DR):<br>Unprotected conditions |    |      |    |      |    |     |    |
|--------|---------|--------------------------|--------------------------------------------------------------|----|-----|----|------|----|-----|----|----------------------------------------------------------------|----|------|----|------|----|-----|----|
|        |         |                          | Kaveri, Hyderabad                                            |    |     |    |      |    |     |    | Kaveri, Hyderabad                                              |    |      |    |      |    |     |    |
|        |         |                          | ALB                                                          |    | BLB |    | GM   |    | TSV |    | ALB                                                            |    | BLB  |    | GM   |    | TSV |    |
|        |         |                          | PDI                                                          | DR | PDI | DR | PDI  | DR | PDI | DR | PDI                                                            | DR | PDI  | DR | PDI  | DR | PDI | DR |
| 5      | 56091   | KCH9287 BGII             | 4.7                                                          | R  | 1.8 | R  | 2.6  | R  | 0.8 | R  | 11.8                                                           | R  | 7.4  | R  | 10.4 | R  | 3.0 | R  |
| 1      | 56092   | NCS 9531 Bt2             | 8.4                                                          | R  | 6.7 | R  | 5.3  | R  | 1.5 | R  | 15.0                                                           | R  | 12.0 | R  | 12.4 | R  | 3.5 | R  |
| 8      | 56093   | Daftari 615 BG II (ZC 2) | 9.1                                                          | R  | 5.2 | R  | 7.7  | R  | 2.0 | R  | 17.5                                                           | R  | 9.5  | R  | 13.9 | R  | 4.7 | R  |
| 3      | 56094   | BIO6910 BGII             | 9.8                                                          | R  | 5.3 | R  | 2.8  | R  | 1.5 | R  | 17.0                                                           | R  | 10.6 | R  | 11.3 | R  | 3.5 | R  |
| 7      | 56095   | PCH 7544 Bt2             | 11.1                                                         | R  | 3.0 | R  | 8.2  | R  | 1.3 | R  | 19.0                                                           | R  | 8.6  | R  | 15.9 | R  | 3.8 | R  |
| 2      | 56096   | SP7679 BGII (ZC 1)       | 9.2                                                          | R  | 4.7 | R  | 11.1 | R  | 3.0 | R  | 17.3                                                           | R  | 8.6  | R  | 17.5 | R  | 5.8 | R  |
| 4      | 56097   | NCS 9955 Bt2             | 5.0                                                          | R  | 2.1 | R  | 7.3  | R  | 1.5 | R  | 17.5                                                           | R  | 11.0 | R  | 14.3 | R  | 4.3 | R  |
| 6      | 56098   | RCH 1119BGII             | 7.3                                                          | R  | 4.3 | R  | 4.1  | R  | 1.4 | R  | 14.0                                                           | R  | 9.2  | R  | 10.8 | R  | 3.7 | R  |



## Agronomic Evaluation

### PERAMBALUR (KCH 9287 BG II)

The results of agronomic requirement studies conducted at Perambalur under rainfed conditions shows that plant height, number of monopodia and number of sympodia were not significantly affected by spacing and nitrogen levels (Table 66). Number of bolls per plant increased significantly at wider spacing, recording 20.7 bolls plant<sup>-1</sup> at 90 × 20 cm compared to 9.8 at 90 × 10 cm. Boll weight was significantly affected by nitrogen levels with 125% N producing heavier bolls. Seed cotton yield was significantly higher at 90 × 20 cm (1924 kg/ha) and was followed by 90 × 15 cm (1784 kg/ha). Among nitrogen levels, 125% N recorded higher yield (1925 kg/ha) and was followed by 100% N (1687 kg/ha).

**Table 66. Seed cotton yield (kg/ha) of KCH 9287 BG II as influenced by spacing levels and nutrient levels at Perambalur**

| Treatments                  | N <sub>1</sub> - 75%<br>RDN | N <sub>2</sub> - 100%<br>RDN | N <sub>3</sub> - 125%<br>RDN | Mean<br>(Spacing) | ANOVA    | SE d | CD<br>(5%) |
|-----------------------------|-----------------------------|------------------------------|------------------------------|-------------------|----------|------|------------|
| S <sub>1</sub> - 90 X 10 cm | 1621                        | 1531                         | 1822                         | 1658              | Spacing  | 64   | 138        |
| S <sub>2</sub> - 90 X 15 cm | 1735                        | 1669                         | 1949                         | 1784              | Nitrogen | 64   | 138        |
| S <sub>3</sub> - 90 X 20 cm | 1909                        | 1860                         | 2003                         | 1924              | S x N    | 111  | NS         |
| Mean (Nitrogen)             | 1755                        | 1687                         | 1925                         |                   |          |      |            |

Basic parameters: pH: 7.05, EC: 0.24 dS m<sup>-1</sup>, OC (%): 3.7, Available N: 159 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 15.8 kg/ha, Available K<sub>2</sub>O: 267 kg/ha, Recommended nutrients: 100:50:60 kg NPK/ha, Genotype: KCH 9287 BG II, Environment: Rainfed, Total rainfall during cropping period: 821 mm



**PERAMBALUR (NCS 9531 Bt2)**

The results of agronomic requirement studies conducted at Perambalur under rainfed conditions shows that plant height, number of monopodia and number of sympodia were not significantly affected by spacing and nitrogen levels (Table 67). Number of bolls per plant and per square meter increased significantly at wider spacing and higher N levels. Boll weight was significantly affected by nitrogen levels with 125% N producing heavier bolls (5.83 g). Seed cotton yield was significantly higher at 90 × 20 cm (2235 kg/ha) and was comparable with 90 × 15 cm (2189 kg/ha). Among nitrogen levels, 125% N recorded a higher yield (2546 kg/ha) and was followed by 100% N (1972 kg/ha).

**Table 67. Seed cotton yield (kg/ha) of NCS 9531 Bt2 as influenced by spacing levels and nutrient levels at Perambalur**

| Treatments                  | N <sub>1</sub> - 75%<br>RDN | N <sub>2</sub> - 100%<br>RDN | N <sub>3</sub> - 125%<br>RDN | Mean<br>(Spacing) | ANOVA    | SE d | CD<br>(5%) |
|-----------------------------|-----------------------------|------------------------------|------------------------------|-------------------|----------|------|------------|
| S <sub>1</sub> - 90 X 10 cm | 1685                        | 1881                         | 2181                         | 1916              | Spacing  | 116  | 250        |
| S <sub>2</sub> - 90 X 15 cm | 1955                        | 2053                         | 2559                         | 2189              | Nitrogen | 116  | 250        |
| S <sub>3</sub> - 90 X 20 cm | 1823                        | 1983                         | 2900                         | 2235              | S x N    | 202  | NS         |
| Mean (Nitrogen)             | 1821                        | 1972                         | 2546                         |                   |          |      |            |

Basic parameters: pH: 7.27, EC: 0.29 dS m<sup>-1</sup>, OC (%): 3.6, Available N: 159 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 15.4 kg/ha, Available K<sub>2</sub>O: 269 kg/ha, Recommended nutrients: 100:50:60 kg NPK/ha, Genotype: NCS 9531 Bt2, Environment: Rainfed, Total rainfall during cropping period: 821 mm



**PERAMBALUR (NCS 9955 Bt2)**

The results of agronomic requirement studies conducted at Perambalur under rainfed conditions shows that plant height, number of monopodia and number of sympodia were not significantly affected by spacing and nitrogen levels (Table 68). Number of bolls per plant and per square meter increased significantly at wider spacing and higher N levels. Boll weight was significantly increased with wider spacing and higher nitrogen levels, with 125% N producing heavier bolls (6.08 g). Seed cotton yield was significantly higher at 90 × 20 cm (2417 kg/ha) and was followed by 90 × 15 cm (2124 kg/ha). Among nitrogen levels, 125% N recorded a higher yield (2475 kg/ha) and was followed by 100% N (2158 kg/ha).

**Table 68. Seed cotton yield (kg/ha) of NCS 9955 Bt2 as influenced by spacing levels and nutrient levels at Perambalur**

| Treatments                  | N <sub>1</sub> - 75%<br>RDN | N <sub>2</sub> - 100%<br>RDN | N <sub>3</sub> - 125%<br>RDN | Mean<br>(Spacing) | ANOVA    | SE d | CD (5%) |
|-----------------------------|-----------------------------|------------------------------|------------------------------|-------------------|----------|------|---------|
| S <sub>1</sub> - 90 X 10 cm | 1892                        | 2116                         | 2206                         | 2071              | Spacing  | 64   | 138     |
| S <sub>2</sub> - 90 X 15 cm | 1730                        | 2004                         | 2639                         | 2124              | Nitrogen | 64   | 138     |
| S <sub>3</sub> - 90 X 20 cm | 2313                        | 2356                         | 2581                         | 2417              | S x N    | 112  | 240     |
| Mean (Nitrogen)             | 1978                        | 2158                         | 2475                         |                   |          |      |         |

Basic parameters: pH: 7.42, EC: 0.24 dS m<sup>-1</sup>, OC (%): 4.0, Available N: 159 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 15.70 kg/ha, Available K<sub>2</sub>O: 260 kg/ha, Recommended nutrients: 100:50:60 kg NPK/ha, Genotype: NCS 9955 Bt2, Environment: Rainfed, Total rainfall during cropping period: 821 mm

**PERAMBALUR (PCH 7544 Bt2)**

The results of agronomic requirement studies conducted at Perambalur under rainfed conditions shows that plant height, was not affected by spacing and nitrogen levels. Number of bolls per plant increased significantly at wider spacing and higher N levels. (Table 69). Number of bolls per square meter increased significantly with higher N levels Boll weight was significantly increased with wider spacing (5.95 at 90 x 20 cm) and higher nitrogen levels with 125% N producing heavier bolls (6.06 g). Seed cotton yield was significantly higher at 90 × 20 cm (2759 kg/ha). Among nitrogen levels, 125% N recorded higher yield (2925 kg/ha) and was followed by 100% N (2600 kg/ha).

**Table 69. Seed cotton yield (kg/ha) of PCH 7544 Bt2 as influenced by spacing levels and nutrient levels at Perambalur**

| Treatments                  | N <sub>1</sub> - 75%<br>RDN | N <sub>2</sub> - 100%<br>RDN | N <sub>3</sub> - 125%<br>RDN | Mean<br>(Spacing) | ANOVA    | SE d | CD (5%) |
|-----------------------------|-----------------------------|------------------------------|------------------------------|-------------------|----------|------|---------|
| S <sub>1</sub> - 90 X 10 cm | 2612                        | 2640                         | 2848                         | 2700              | Spacing  | 74   | 159     |
| S <sub>2</sub> - 90 X 15 cm | 2370                        | 2478                         | 2761                         | 2536              | Nitrogen | 74   | 159     |
| S <sub>3</sub> - 90 X 20 cm | 2431                        | 2681                         | 3165                         | 2759              | S x N    | 129  | NS      |
| Mean (Nitrogen)             | 2471                        | 2600                         | 2925                         |                   |          |      |         |



**Perambalur (RCH 1119 BGII)**

The results of agronomic requirement studies conducted at Perambalur under rainfed conditions shows that plant height and no of sympodia was not affected by spacing and nitrogen levels. (Table 70). Number of bolls per plant increased significantly at wider spacing. Number of bolls per square meter increased significantly with closer spacing with 90x10 cm recording 102.9 bolls. Seed cotton yield was significantly higher at 90 × 10 cm (3157 kg/ha) and was followed by 90 × 15 cm (2841 kg/ha). Among nitrogen levels, 100% N recorded higher yield (3146 kg/ha) and was comparable with 100% N (2991kg/ha).

**Table 70. Seed cotton yield (kg/ha) of RCH 1119 BGII as influenced by spacing levels and nutrient levels at Perambalur**

| Treatments                  | N <sub>1</sub> - 75%<br>RDN | N <sub>2</sub> - 100%<br>RDN | N <sub>3</sub> - 125%<br>RDN | Mean<br>(Spacing) | ANOVA    | SE d | CD (5%) |
|-----------------------------|-----------------------------|------------------------------|------------------------------|-------------------|----------|------|---------|
| S <sub>1</sub> - 90 X 10 cm | 2866                        | 3389                         | 3217                         | 3157              | Spacing  | 107  | 229     |
| S <sub>2</sub> - 90 X 15 cm | 2611                        | 3037                         | 2874                         | 2841              | Nitrogen | 107  | 229     |
| S <sub>3</sub> - 90 X 20 cm | 2301                        | 3013                         | 2883                         | 2732              | S x N    | 186  | NS      |
| Mean (Nitrogen)             | 2593                        | 3146                         | 2991                         |                   |          |      |         |

Basic parameters: pH: 7.05, EC: 0.23 dS m<sup>-1</sup>, OC (%): 3.7, Available N: 153 kg/ha, Available P<sub>2</sub>O<sub>5</sub>: 14.9 kg/ha, Available K<sub>2</sub>O: 265 kg/ha, Recommended nutrients: 100:50:60 kg NPK/ha, Genotype: PCH 7544 Bt2, Environment: Rainfed, Total rainfall during cropping period: 821 mm



## Initial Evaluation Trial of Hirsutum Varieties - Rainfed

### *Constitution of Trial*

The trial was constituted with 15 Bt cotton varieties containing deregulated event along with three different check varieties as furnished below.

| S. No. | Code-I    | Code -II     | Entries                     | Sponsored by      |
|--------|-----------|--------------|-----------------------------|-------------------|
| 1      | 11        | 56101        | LRA 5166 Bt                 | CICR, Coimbatore  |
| 2      | 16        | 56102        | Anjali Bt                   | CICR, Coimbatore  |
| 3      | 8         | 56103        | LHBt 2203                   | ANGRAU-Lam-Guntur |
| 4      | 4         | 56104        | LHBt 23108                  | ANGRAU-Lam-Guntur |
| 5      | 17        | 56105        | NH 22095 Bt                 | CRS, Nanded       |
| 6      | 2         | 56106        | WGCV Bt 129                 | CRS, Warangal     |
| 7      | 7         | 56107        | Sumangala Bt                | CICR, Coimbatore  |
| 8      | 1         | 56108        | NH 22107 Bt                 | CRS, Nanded       |
| 9      | 6         | 56109        | CPDBt-2552                  | UAS Dharwad       |
| 10     | <b>10</b> | <b>56110</b> | <b>CICR 23 Bt (ZC Bt-1)</b> |                   |
| 11     | 15        | 56111        | CCH 2623 Bt                 | CICR, Coimbatore  |
| 12     | <b>3</b>  | <b>56112</b> | <b>PKV 081 Bt (ZC Bt-2)</b> |                   |
| 13     | 9         | 56113        | NH 22076 Bt                 | CRS, Nanded       |
| 14     | 5         | 56114        | LHBt 23105                  | ANGRAU-Lam-Guntur |
| 15     | 13        | 56115        | CPDBt-2551                  | UAS Dharwad       |
| 16     | 14        | 56116        | LHBt 23110                  | ANGRAU-Lam-Guntur |
| 17     | 12        | 56117        | WGCV Bt 128                 | CRS, Warangal     |

The trial was conducted in five locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, and Perambalur.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Recommended spacing for the variety has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean         |
|--------|-----------------------------|---------|----------|---------|------------|--------------|
| 1      | LRA 5166 Bt                 | 131.8   | 186.5    | 124.7   | 191.2      | <b>158.6</b> |
| 2      | Anjali Bt                   | 110.6   | 144.9    | 107.7   | 149.3      | <b>128.1</b> |
| 3      | LHBt 2203                   | 110.9   | 150.3    | 98.4    | 171.3      | <b>132.7</b> |
| 4      | LHBt 23108                  | 120.3   | 178.7    | 90.9    | 170.9      | <b>140.2</b> |
| 5      | NH 22095 Bt                 | 120.3   | 161.3    | 99.1    | 164.2      | <b>136.2</b> |
| 6      | WGCV Bt 129                 | 125.7   | 149.5    | 118.7   | 135.8      | <b>132.4</b> |
| 7      | Sumangala Bt                | 128.3   | 172.5    | 118.0   | 195.0      | <b>153.5</b> |
| 8      | NH 22107 Bt                 | 124.9   | 167.8    | 106.9   | 168.7      | <b>142.1</b> |
| 9      | CPDBt-2552                  | 119.7   | 163.7    | 115.0   | 187.3      | <b>146.4</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 114.3   | 164.7    | 104.9   | 185.3      | <b>142.3</b> |
| 11     | CCH 2623 Bt                 | 135.5   | 179.3    | 114.3   | 208.7      | <b>159.5</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 138.9   | 157.6    | 107.3   | 188.8      | <b>148.2</b> |
| 13     | NH 22076 Bt                 | 119.2   | 151.9    | 103.1   | 184.1      | <b>139.6</b> |
| 14     | LHBt 23105                  | 137.5   | 188.2    | 115.8   | 208.2      | <b>162.4</b> |
| 15     | CPDBt-2551                  | 113.5   | 160.0    | 114.4   | 178.4      | <b>141.6</b> |
| 16     | LHBt 23110                  | 125.6   | 156.6    | 98.2    | 175.8      | <b>139.1</b> |
| 17     | WGCV Bt 128                 | 107.1   | 128.3    | 101.7   | 172.9      | <b>127.5</b> |
|        | CD @ 5%                     | 18.6    | 22.5     | 21.0    | 20.2       |              |
|        | CV %                        | 9.1     | 8.3      | 11.7    | 7.1        |              |

**Number of monopodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | LRA 5166 Bt                 | 1.5     | 1.1      | 0.3     | 3.1        | <b>1.5</b> |
| 2      | Anjali Bt                   | 1.4     | 1.5      | 2.1     | 3.5        | <b>2.1</b> |
| 3      | LHBt 2203                   | 0.3     | 1.3      | 1.7     | 2.7        | <b>1.5</b> |
| 4      | LHBt 23108                  | 0.3     | 0.6      | 0.6     | 2.5        | <b>1.0</b> |
| 5      | NH 22095 Bt                 | 0.7     | 0.9      | 0.8     | 1.9        | <b>1.1</b> |
| 6      | WGCV Bt 129                 | 0.9     | 1.3      | 3.1     | 3.7        | <b>2.3</b> |
| 7      | Sumangala Bt                | 0.9     | 1.6      | 1.3     | 2.8        | <b>1.7</b> |
| 8      | NH 22107 Bt                 | 0.5     | 1.5      | 1.8     | 3.0        | <b>1.7</b> |
| 9      | CPDBt-2552                  | 0.8     | 1.2      | 1.4     | 2.5        | <b>1.5</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 1.1     | 1.5      | 1.6     | 1.9        | <b>1.5</b> |
| 11     | CCH 2623 Bt                 | 1.3     | 1.1      | 0.6     | 2.5        | <b>1.4</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 1.1     | 0.7      | 1.0     | 1.9        | <b>1.2</b> |
| 13     | NH 22076 Bt                 | 0.3     | 0.8      | 1.6     | 1.7        | <b>1.1</b> |
| 14     | LHBt 23105                  | 0.5     | 1.5      | 1.3     | 2.4        | <b>1.4</b> |
| 15     | CPDBt-2551                  | 0.5     | 1.0      | 1.2     | 1.8        | <b>1.1</b> |
| 16     | LHBt 23110                  | 1.1     | 1.3      | 1.0     | 1.8        | <b>1.3</b> |
| 17     | WGCV Bt 128                 | 1.1     | 1.7      | 1.2     | 2.9        | <b>1.7</b> |
|        | CD @ 5%                     | 0.2     | NS       | 0.4     | 0.7        |            |
|        | CV %                        | 18.8    | 39.5     | 18.4    | 16.9       |            |



**Number of sympodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 10.3    | 16.3     | 18.0    | 23.3       | <b>17.0</b> |
| 2      | Anjali Bt                   | 12.1    | 14.5     | 13.3    | 25.7       | <b>16.4</b> |
| 3      | LHBt 2203                   | 11.0    | 14.9     | 15.7    | 24.8       | <b>16.6</b> |
| 4      | LHBt 23108                  | 7.9     | 18.2     | 14.9    | 24.0       | <b>16.3</b> |
| 5      | NH 22095 Bt                 | 11.9    | 15.9     | 17.2    | 26.7       | <b>17.9</b> |
| 6      | WGCV Bt 129                 | 13.0    | 14.3     | 15.2    | 24.1       | <b>16.7</b> |
| 7      | Sumangala Bt                | 9.0     | 14.9     | 18.3    | 24.6       | <b>16.7</b> |
| 8      | NH 22107 Bt                 | 12.7    | 17.3     | 17.3    | 26.1       | <b>18.4</b> |
| 9      | CPDBt-2552                  | 11.6    | 15.3     | 18.4    | 25.5       | <b>17.7</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 11.6    | 16.9     | 16.8    | 27.8       | <b>18.3</b> |
| 11     | CCH 2623 Bt                 | 12.8    | 16.5     | 16.7    | 26.4       | <b>18.1</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 13.0    | 14.5     | 17.4    | 22.4       | <b>16.8</b> |
| 13     | NH 22076 Bt                 | 13.9    | 14.6     | 16.3    | 26.3       | <b>17.8</b> |
| 14     | LHBt 23105                  | 12.2    | 15.3     | 18.3    | 25.8       | <b>17.9</b> |
| 15     | CPDBt-2551                  | 11.9    | 14.3     | 15.7    | 24.7       | <b>16.7</b> |
| 16     | LHBt 23110                  | 9.9     | 15.2     | 15.4    | 22.1       | <b>15.7</b> |
| 17     | WGCV Bt 128                 | 12.4    | 13.5     | 16.2    | 24.0       | <b>16.5</b> |
|        | CD @ 5%                     | 2.2     | 2.5      | 2.4     | 3.1        |             |
|        | CV %                        | 11.2    | 9.9      | 8.8     | 7.8        |             |

**Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | LRA 5166 Bt                 | 4.2     | 3.9      | 5.0     | 5.0        | <b>4.5</b> |
| 2      | Anjali Bt                   | 4.0     | 4.1      | 5.0     | 4.4        | <b>4.4</b> |
| 3      | LHBt 2203                   | 4.1     | 4.3      | 4.7     | 6.3        | <b>4.9</b> |
| 4      | LHBt 23108                  | 3.0     | 3.1      | 3.6     | 3.6        | <b>3.3</b> |
| 5      | NH 22095 Bt                 | 4.1     | 4.7      | 5.0     | 5.1        | <b>4.7</b> |
| 6      | WGCV Bt 129                 | 3.9     | 4.3      | 4.5     | 4.2        | <b>4.2</b> |
| 7      | Sumangala Bt                | 4.2     | 4.3      | 4.6     | 5.2        | <b>4.6</b> |
| 8      | NH 22107 Bt                 | 4.3     | 4.7      | 4.6     | 4.9        | <b>4.6</b> |
| 9      | CPDBt-2552                  | 4.1     | 4.2      | 4.2     | 4.2        | <b>4.2</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.1     | 3.1      | 3.8     | 3.6        | <b>3.4</b> |
| 11     | CCH 2623 Bt                 | 4.0     | 4.1      | 4.6     | 4.7        | <b>4.4</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 3.9     | 3.6      | 4.3     | 4.5        | <b>4.1</b> |
| 13     | NH 22076 Bt                 | 3.4     | 3.9      | 4.4     | 4.4        | <b>4.0</b> |
| 14     | LHBt 23105                  | 3.8     | 4.5      | 4.9     | 5.7        | <b>4.7</b> |
| 15     | CPDBt-2551                  | 3.8     | 3.8      | 4.3     | 4.3        | <b>4.1</b> |
| 16     | LHBt 23110                  | 4.6     | 5.0      | 5.1     | 5.6        | <b>5.1</b> |
| 17     | WGCV Bt 128                 | 4.3     | 4.0      | 4.9     | 5.0        | <b>4.6</b> |
|        | CD @ 5%                     | 0.6     | 0.8      | 0.3     | 0.8        |            |
|        | CV %                        | 10.5    | 12.3     | 3.6     | 10.5       |            |





**Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 15.4    | 12.7     | 8.5     | 47.3       | <b>21.0</b> |
| 2      | Anjali Bt                   | 19.0    | 12.7     | 9.6     | 42.4       | <b>20.9</b> |
| 3      | LHBt 2203                   | 13.7    | 10.5     | 6.2     | 34.3       | <b>16.2</b> |
| 4      | LHBt 23108                  | 11.9    | 4.3      | 9.5     | 34.9       | <b>15.2</b> |
| 5      | NH 22095 Bt                 | 17.5    | 12.6     | 8.6     | 42.9       | <b>20.4</b> |
| 6      | WGCV Bt 129                 | 23.9    | 14.9     | 8.2     | 44.3       | <b>22.8</b> |
| 7      | Sumangala Bt                | 12.5    | 14.2     | 9.9     | 41.6       | <b>19.6</b> |
| 8      | NH 22107 Bt                 | 15.1    | 11.2     | 9.6     | 42.5       | <b>19.6</b> |
| 9      | CPDBt-2552                  | 18.2    | 15.1     | 9.7     | 45.7       | <b>22.2</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 15.1    | 9.1      | 7.6     | 36.1       | <b>17.0</b> |
| 11     | CCH 2623 Bt                 | 20.8    | 9.1      | 8.2     | 41.7       | <b>20.0</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 18.5    | 11.7     | 8.5     | 40.1       | <b>19.7</b> |
| 13     | NH 22076 Bt                 | 24.5    | 13.4     | 11.1    | 48.5       | <b>24.4</b> |
| 14     | LHBt 23105                  | 12.8    | 7.7      | 6.3     | 38.4       | <b>16.3</b> |
| 15     | CPDBt-2551                  | 17.2    | 13.5     | 9.8     | 40.5       | <b>20.3</b> |
| 16     | LHBt 23110                  | 20.4    | 10.9     | 8.1     | 30.6       | <b>17.5</b> |
| 17     | WGCV Bt 128                 | 18.8    | 19.7     | 9.6     | 45.3       | <b>23.4</b> |
|        | CD @ 5%                     | 4.4     | 4.7      | 2.0     | 9.7        |             |
|        | CV %                        | 15.4    | 23.6     | 14.0    | 14.7       |             |

**Number of bolls / sq. m. in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean         |
|--------|-----------------------------|---------|----------|---------|------------|--------------|
| 1      | LRA 5166 Bt                 | 62.3    | 57.7     | 47.3    | 169.3      | <b>84.2</b>  |
| 2      | Anjali Bt                   | 93.3    | 70.0     | 53.4    | 164.0      | <b>95.2</b>  |
| 3      | LHBt 2203                   | 57.7    | 53.0     | 34.3    | 135.7      | <b>70.2</b>  |
| 4      | LHBt 23108                  | 46.0    | 40.0     | 52.8    | 140.7      | <b>69.9</b>  |
| 5      | NH 22095 Bt                 | 79.3    | 55.7     | 47.6    | 183.3      | <b>91.5</b>  |
| 6      | WGCV Bt 129                 | 75.3    | 75.0     | 45.4    | 171.3      | <b>91.8</b>  |
| 7      | Sumangala Bt                | 66.0    | 52.0     | 55.3    | 161.0      | <b>83.6</b>  |
| 8      | NH 22107 Bt                 | 71.7    | 61.3     | 53.1    | 168.0      | <b>88.5</b>  |
| 9      | CPDBt-2552                  | 92.7    | 69.0     | 54.1    | 174.3      | <b>97.5</b>  |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 51.7    | 34.0     | 42.3    | 141.0      | <b>67.3</b>  |
| 11     | CCH 2623 Bt                 | 85.7    | 46.0     | 45.4    | 162.7      | <b>85.0</b>  |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 57.0    | 63.7     | 47.3    | 149.7      | <b>79.4</b>  |
| 13     | NH 22076 Bt                 | 89.3    | 65.7     | 61.8    | 185.3      | <b>100.5</b> |
| 14     | LHBt 23105                  | 51.7    | 36.0     | 35.2    | 148.7      | <b>67.9</b>  |
| 15     | CPDBt-2551                  | 69.3    | 60.7     | 54.7    | 155.3      | <b>85.0</b>  |
| 16     | LHBt 23110                  | 91.7    | 44.0     | 44.8    | 123.0      | <b>75.9</b>  |
| 17     | WGCV Bt 128                 | 72.3    | 76.3     | 53.1    | 175.7      | <b>94.4</b>  |
|        | CD @ 5%                     | 11.3    | 23.2     | 11.3    | 27.1       |              |
|        | CV %                        | 9.5     | 24.7     | 14.0    | 10.6       |              |



**Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | LRA 5166 Bt                 | 3.3     | 4.9      | 5.7     | 7.0        | <b>5.2</b> |
| 2      | Anjali Bt                   | 3.1     | 4.4      | 6.3     | 6.4        | <b>5.1</b> |
| 3      | LHBt 2203                   | 3.0     | 4.2      | 4.2     | 6.4        | <b>4.5</b> |
| 4      | LHBt 23108                  | 3.0     | 4.3      | 4.4     | 5.9        | <b>4.4</b> |
| 5      | NH 22095 Bt                 | 2.9     | 4.7      | 5.5     | 6.5        | <b>4.9</b> |
| 6      | WGCV Bt 129                 | 2.6     | 4.3      | 5.1     | 5.5        | <b>4.4</b> |
| 7      | Sumangala Bt                | 4.9     | 5.0      | 6.6     | 6.3        | <b>5.7</b> |
| 8      | NH 22107 Bt                 | 5.1     | 5.3      | 6.0     | 6.7        | <b>5.8</b> |
| 9      | CPDBt-2552                  | 3.3     | 4.3      | 6.0     | 5.5        | <b>4.8</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 2.5     | 3.2      | 4.4     | 4.6        | <b>3.7</b> |
| 11     | CCH 2623 Bt                 | 3.9     | 5.5      | 6.1     | 6.6        | <b>5.5</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 2.7     | 4.0      | 5.5     | 5.4        | <b>4.4</b> |
| 13     | NH 22076 Bt                 | 3.0     | 4.3      | 5.3     | 5.3        | <b>4.5</b> |
| 14     | LHBt 23105                  | 1.9     | 4.4      | 4.0     | 6.4        | <b>4.2</b> |
| 15     | CPDBt-2551                  | 2.7     | 4.6      | 5.5     | 4.7        | <b>4.4</b> |
| 16     | LHBt 23110                  | 4.3     | 4.4      | 5.2     | 6.5        | <b>5.1</b> |
| 17     | WGCV Bt 128                 | 3.7     | 4.3      | 5.7     | 6.5        | <b>5.1</b> |
|        | CD @ 5%                     | 0.5     | 0.7      |         | 0.9        |            |
|        | CV %                        | 8.5     | 9.4      |         | 9.5        |            |

**Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 9.6     | 11.0     | 11.5    | 11.8       | <b>11.0</b> |
| 2      | Anjali Bt                   | 9.6     | 9.1      | 11.1    | 10.7       | <b>10.1</b> |
| 3      | LHBt 2203                   | 9.4     | 10.1     | 11.2    | 12.0       | <b>10.7</b> |
| 4      | LHBt 23108                  | 8.3     | 8.1      | 8.7     | 8.8        | <b>8.5</b>  |
| 5      | NH 22095 Bt                 | 9.0     | 10.8     | 9.4     | 10.8       | <b>10.0</b> |
| 6      | WGCV Bt 129                 | 8.4     | 8.8      | 9.9     | 9.3        | <b>9.1</b>  |
| 7      | Sumangala Bt                | 10.1    | 10.6     | 9.8     | 11.7       | <b>10.6</b> |
| 8      | NH 22107 Bt                 | 9.4     | 10.6     | 10.2    | 10.5       | <b>10.2</b> |
| 9      | CPDBt-2552                  | 8.3     | 8.6      | 9.1     | 9.4        | <b>8.9</b>  |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 7.2     | 7.7      | 8.4     | 8.5        | <b>8.0</b>  |
| 11     | CCH 2623 Bt                 | 10.4    | 9.3      | 10.2    | 10.5       | <b>10.1</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 8.1     | 9.0      | 9.8     | 9.1        | <b>9.0</b>  |
| 13     | NH 22076 Bt                 | 7.3     | 7.9      | 9.0     | 9.2        | <b>8.4</b>  |
| 14     | LHBt 23105                  | 7.4     | 8.6      | 9.0     | 10.9       | <b>9.0</b>  |
| 15     | CPDBt-2551                  | 7.7     | 8.3      | 7.9     | 8.7        | <b>8.2</b>  |
| 16     | LHBt 23110                  | 10.0    | 10.4     | 11.5    | 12.9       | <b>11.2</b> |
| 17     | WGCV Bt 128                 | 8.5     | 9.6      | 10.7    | 11.6       | <b>10.1</b> |
|        | CD @ 5%                     | 0.8     | 1.3      |         | 1.1        |             |
|        | CV %                        | 5.5     | 8.3      |         | 6.4        |             |



**Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 25.4    | 30.9     | 33.3    | 37.2       | <b>31.7</b> |
| 2      | Anjali Bt                   | 24.7    | 32.9     | 36.1    | 37.2       | <b>32.7</b> |
| 3      | LHBt 2203                   | 24.0    | 29.2     | 27.4    | 34.6       | <b>28.8</b> |
| 4      | LHBt 23108                  | 26.3    | 34.4     | 33.4    | 40.1       | <b>33.6</b> |
| 5      | NH 22095 Bt                 | 24.7    | 30.1     | 37.0    | 37.5       | <b>32.3</b> |
| 6      | WGCV Bt 129                 | 23.6    | 32.7     | 34.0    | 37.4       | <b>31.9</b> |
| 7      | Sumangala Bt                | 32.8    | 32.2     | 40.0    | 35.1       | <b>35.0</b> |
| 8      | NH 22107 Bt                 | 35.2    | 33.2     | 36.8    | 39.0       | <b>36.1</b> |
| 9      | CPDBt-2552                  | 28.0    | 33.1     | 39.7    | 37.1       | <b>34.5</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 25.8    | 29.4     | 34.7    | 35.0       | <b>31.2</b> |
| 11     | CCH 2623 Bt                 | 27.0    | 37.1     | 37.7    | 38.6       | <b>35.1</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 24.8    | 30.8     | 36.0    | 37.1       | <b>32.2</b> |
| 13     | NH 22076 Bt                 | 29.0    | 35.5     | 37.1    | 36.7       | <b>34.6</b> |
| 14     | LHBt 23105                  | 20.8    | 34.1     | 31.0    | 37.1       | <b>30.8</b> |
| 15     | CPDBt-2551                  | 25.7    | 35.6     | 41.1    | 35.2       | <b>34.4</b> |
| 16     | LHBt 23110                  | 30.0    | 29.9     | 31.0    | 33.6       | <b>31.1</b> |
| 17     | WGCV Bt 128                 | 30.4    | 31.1     | 34.8    | 35.7       | <b>33.0</b> |
|        | CD @ 5%                     | 3.3     | 2.3      |         | 3.7        |             |
|        | CV %                        | 7.4     | 4.5      |         | 6.2        |             |

**Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 28.7    | 30.6     | 32.5    | 30.2       | <b>30.5</b> |
| 2      | Anjali Bt                   | 26.8    | 28.4     | 30.3    | 28.8       | <b>28.6</b> |
| 3      | LHBt 2203                   | 30.0    | 30.4     | 31.5    | 30.3       | <b>30.6</b> |
| 4      | LHBt 23108                  | 27.5    | 27.0     | 26.9    | 26.2       | <b>26.9</b> |
| 5      | NH 22095 Bt                 | 26.8    | 28.1     | 28.9    | 28.3       | <b>28.0</b> |
| 6      | WGCV Bt 129                 | 27.1    | 27.3     | 29.7    | 25.8       | <b>27.5</b> |
| 7      | Sumangala Bt                | 27.3    | 28.2     | 28.3    | 28.7       | <b>28.1</b> |
| 8      | NH 22107 Bt                 | 27.4    | 27.0     | 30.1    | 27.4       | <b>28.0</b> |
| 9      | CPDBt-2552                  | 27.7    | 26.2     | 28.1    | 26.0       | <b>27.0</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 26.9    | 26.5     | 28.3    | 26.5       | <b>27.1</b> |
| 11     | CCH 2623 Bt                 | 27.1    | 27.1     | 28.9    | 26.0       | <b>27.3</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 27.5    | 26.5     | 27.5    | 26.4       | <b>27.0</b> |
| 13     | NH 22076 Bt                 | 26.9    | 27.1     | 28.6    | 26.9       | <b>27.4</b> |
| 14     | LHBt 23105                  | 27.0    | 28.9     | 31.4    | 28.1       | <b>28.9</b> |
| 15     | CPDBt-2551                  | 25.4    | 26.7     | 28.4    | 25.9       | <b>26.6</b> |
| 16     | LHBt 23110                  | 28.0    | 28.1     | 30.3    | 29.0       | <b>28.9</b> |
| 17     | WGCV Bt 128                 | 28.1    | 29.9     | 30.9    | 28.4       | <b>29.3</b> |



**Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 82.0    | 83.0     | 88.0    | 86.0       | <b>84.8</b> |
| 2      | Anjali Bt                   | 81.0    | 83.0     | 87.0    | 84.0       | <b>83.8</b> |
| 3      | LHBt 2203                   | 84.0    | 83.0     | 85.0    | 85.0       | <b>84.3</b> |
| 4      | LHBt 23108                  | 82.0    | 83.0     | 83.0    | 81.0       | <b>82.3</b> |
| 5      | NH 22095 Bt                 | 82.0    | 82.0     | 84.0    | 84.0       | <b>83.0</b> |
| 6      | WGCV Bt 129                 | 83.0    | 83.0     | 86.0    | 82.0       | <b>83.5</b> |
| 7      | Sumangala Bt                | 83.0    | 84.0     | 83.0    | 84.0       | <b>83.5</b> |
| 8      | NH 22107 Bt                 | 84.0    | 81.0     | 85.0    | 84.0       | <b>83.5</b> |
| 9      | CPDBt-2552                  | 81.0    | 83.0     | 83.0    | 83.0       | <b>82.5</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 83.0    | 82.0     | 84.0    | 82.0       | <b>82.8</b> |
| 11     | CCH 2623 Bt                 | 82.0    | 82.0     | 86.0    | 82.0       | <b>83.0</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 81.0    | 83.0     | 85.0    | 85.0       | <b>83.5</b> |
| 13     | NH 22076 Bt                 | 84.0    | 82.0     | 85.0    | 84.0       | <b>83.8</b> |
| 14     | LHBt 23105                  | 82.0    | 84.0     | 87.0    | 83.0       | <b>84.0</b> |
| 15     | CPDBt-2551                  | 82.0    | 82.0     | 85.0    | 81.0       | <b>82.5</b> |
| 16     | LHBt 23110                  | 82.0    | 83.0     | 85.0    | 85.0       | <b>83.8</b> |
| 17     | WGCV Bt 128                 | 84.0    | 81.0     | 83.0    | 83.0       | <b>82.8</b> |

**Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | LRA 5166 Bt                 | 3.7     | 3.6      | 4.0     | 4.0        | <b>3.8</b> |
| 2      | Anjali Bt                   | 4.1     | 3.7      | 4.1     | 4.2        | <b>4.0</b> |
| 3      | LHBt 2203                   | 3.4     | 3.4      | 3.6     | 3.6        | <b>3.5</b> |
| 4      | LHBt 23108                  | 4.2     | 4.8      | 5.4     | 5.3        | <b>4.9</b> |
| 5      | NH 22095 Bt                 | 4.2     | 3.9      | 4.5     | 4.4        | <b>4.3</b> |
| 6      | WGCV Bt 129                 | 4.2     | 4.1      | 4.0     | 4.9        | <b>4.3</b> |
| 7      | Sumangala Bt                | 4.3     | 4.2      | 4.6     | 4.4        | <b>4.4</b> |
| 8      | NH 22107 Bt                 | 4.0     | 3.7      | 3.8     | 4.1        | <b>3.9</b> |
| 9      | CPDBt-2552                  | 3.7     | 4.3      | 4.2     | 4.5        | <b>4.2</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.8     | 3.6      | 4.0     | 4.3        | <b>3.9</b> |
| 11     | CCH 2623 Bt                 | 4.2     | 4.0      | 4.5     | 4.6        | <b>4.3</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 3.8     | 3.1      | 4.1     | 4.2        | <b>3.8</b> |
| 13     | NH 22076 Bt                 | 4.3     | 4.2      | 4.6     | 4.8        | <b>4.5</b> |
| 14     | LHBt 23105                  | 3.9     | 3.6      | 3.8     | 4.7        | <b>4.0</b> |
| 15     | CPDBt-2551                  | 4.2     | 4.0      | 4.4     | 4.3        | <b>4.2</b> |
| 16     | LHBt 23110                  | 3.9     | 3.7      | 3.9     | 4.0        | <b>3.9</b> |
| 17     | WGCV Bt 128                 | 3.9     | 4.3      | 4.1     | 3.9        | <b>4.1</b> |



**Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 29.0    | 33.3     | 32.3    | 32.7       | <b>31.8</b> |
| 2      | Anjali Bt                   | 27.2    | 30.6     | 33.3    | 30.1       | <b>30.3</b> |
| 3      | LHBt 2203                   | 30.2    | 32.1     | 31.5    | 30.1       | <b>31.0</b> |
| 4      | LHBt 23108                  | 29.0    | 29.0     | 27.3    | 26.7       | <b>28.0</b> |
| 5      | NH 22095 Bt                 | 29.0    | 29.7     | 27.5    | 29.0       | <b>28.8</b> |
| 6      | WGCV Bt 129                 | 27.3    | 28.6     | 28.2    | 27.6       | <b>27.9</b> |
| 7      | Sumangala Bt                | 29.0    | 30.3     | 30.1    | 30.2       | <b>29.9</b> |
| 8      | NH 22107 Bt                 | 27.9    | 27.3     | 30.0    | 27.7       | <b>28.2</b> |
| 9      | CPDBt-2552                  | 27.9    | 27.3     | 27.4    | 28.2       | <b>27.7</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 27.3    | 28.6     | 28.9    | 28.1       | <b>28.2</b> |
| 11     | CCH 2623 Bt                 | 28.6    | 28.9     | 29.1    | 28.3       | <b>28.7</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 28.0    | 28.5     | 28.7    | 27.7       | <b>28.2</b> |
| 13     | NH 22076 Bt                 | 29.1    | 28.4     | 29.7    | 27.6       | <b>28.7</b> |
| 14     | LHBt 23105                  | 28.0    | 29.9     | 31.7    | 29.7       | <b>29.8</b> |
| 15     | CPDBt-2551                  | 27.1    | 27.5     | 29.7    | 27.4       | <b>27.9</b> |
| 16     | LHBt 23110                  | 28.0    | 28.0     | 28.3    | 29.0       | <b>28.3</b> |
| 17     | WGCV Bt 128                 | 28.7    | 31.4     | 29.2    | 29.1       | <b>29.6</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean         |
|--------|-----------------------------|---------|----------|---------|------------|--------------|
| 1      | LRA 5166 Bt                 | 12.23   | 13.29    | 8.88    | 8.37       | <b>10.69</b> |
| 2      | Anjali Bt                   | 19.68   | 18.50    | 13.80   | 12.80      | <b>16.20</b> |
| 3      | LHBt 2203                   | 11.27   | 12.48    | 3.72    | 7.31       | <b>8.70</b>  |
| 4      | LHBt 23108                  | 11.13   | 3.94     | 2.61    | 5.81       | <b>5.87</b>  |
| 5      | NH 22095 Bt                 | 16.45   | 15.16    | 11.09   | 7.05       | <b>12.44</b> |
| 6      | WGCV Bt 129                 | 20.34   | 16.81    | 6.04    | 13.11      | <b>14.08</b> |
| 7      | Sumangala Bt                | 12.52   | 10.79    | 13.05   | 10.52      | <b>11.72</b> |
| 8      | NH 22107 Bt                 | 14.31   | 14.91    | 11.87   | 10.31      | <b>12.85</b> |
| 9      | CPDBt-2552                  | 17.47   | 18.56    | 15.13   | 6.77       | <b>14.48</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 11.50   | 4.63     | 2.00    | 6.95       | <b>6.27</b>  |
| 11     | CCH 2623 Bt                 | 17.95   | 11.34    | 10.54   | 7.79       | <b>11.91</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 13.31   | 15.42    | 7.71    | 9.54       | <b>11.50</b> |
| 13     | NH 22076 Bt                 | 19.71   | 15.69    | 9.11    | 8.41       | <b>13.23</b> |
| 14     | LHBt 23105                  | 13.25   | 7.99     | 2.66    | 7.56       | <b>7.87</b>  |
| 15     | CPDBt-2551                  | 15.12   | 18.08    | 13.03   | 8.87       | <b>13.78</b> |
| 16     | LHBt 23110                  | 17.08   | 12.13    | 3.46    | 8.06       | <b>10.18</b> |
| 17     | WGCV Bt 128                 | 14.28   | 15.32    | 4.21    | 8.30       | <b>10.53</b> |
|        | CD @ 5%                     | 0.50    | 2.81     | 1.53    | 2.13       |              |
|        | CV %                        | 13.90   | 12.75    | 11.00   | 15.39      |              |



**Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | LRA 5166 Bt                 | 3.43    | 4.12     | 7.45    | 4.04       | <b>4.76</b> |
| 2      | Anjali Bt                   | 2.61    | 3.66     | 4.52    | 3.16       | <b>3.49</b> |
| 3      | LHBt 2203                   | 2.80    | 5.28     | 4.43    | 1.64       | <b>3.54</b> |
| 4      | LHBt 23108                  | 2.75    | 5.07     | 6.19    | 4.52       | <b>4.63</b> |
| 5      | NH 22095 Bt                 | 2.88    | 4.95     | 6.35    | 3.57       | <b>4.44</b> |
| 6      | WGCV Bt 129                 | 2.20    | 6.48     | 8.12    | 3.58       | <b>5.10</b> |
| 7      | Sumangala Bt                | 3.26    | 5.21     | 8.75    | 3.53       | <b>5.19</b> |
| 8      | NH 22107 Bt                 | 3.24    | 6.48     | 5.52    | 2.35       | <b>4.40</b> |
| 9      | CPDBt-2552                  | 2.89    | 4.77     | 5.24    | 4.00       | <b>4.23</b> |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 2.96    | 3.98     | 8.53    | 4.09       | <b>4.89</b> |
| 11     | CCH 2623 Bt                 | 3.52    | 5.32     | 7.46    | 3.42       | <b>4.93</b> |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 3.66    | 5.93     | 7.10    | 3.46       | <b>5.04</b> |
| 13     | NH 22076 Bt                 | 2.64    | 5.02     | 6.54    | 4.37       | <b>4.64</b> |
| 14     | LHBt 23105                  | 2.22    | 4.31     | 5.18    | 5.07       | <b>4.20</b> |
| 15     | CPDBt-2551                  | 3.22    | 3.87     | 6.18    | 4.26       | <b>4.38</b> |
| 16     | LHBt 23110                  | 2.99    | 6.55     | 4.30    | 4.17       | <b>4.50</b> |
| 17     | WGCV Bt 128                 | 3.29    | 5.46     | 5.41    | 4.53       | <b>4.67</b> |
|        | CD @ 5%                     | 0.10    | 1.16     | 1.49    | 0.98       |             |
|        | CV %                        | 14.40   | 13.76    | 14.22   | 16.38      |             |



**Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|---------|----------|---------|------------|--------------|------|-----------------------|
| 1      | LRA 5166 Bt                 | 15.84   | 17.41    | 16.32   | 12.40      | <b>15.49</b> | 11   | -5.8                  |
| 2      | Anjali Bt                   | 22.23   | 22.15    | 18.32   | 16.00      | <b>19.68</b> | 1    | 19.7                  |
| 3      | LHBt 2203                   | 14.07   | 17.75    | 8.15    | 9.00       | <b>12.24</b> | 14   | -25.5                 |
| 4      | LHBt 23108                  | 13.89   | 9.00     | 8.80    | 10.30      | <b>10.50</b> | 17   | -36.1                 |
| 5      | NH 22095 Bt                 | 19.33   | 20.12    | 17.45   | 10.60      | <b>16.88</b> | 8    | 2.6                   |
| 6      | WGCV Bt 129                 | 22.53   | 23.29    | 14.15   | 16.70      | <b>19.17</b> | 2    | 16.6                  |
| 7      | Sumangala Bt                | 15.79   | 16.00    | 21.81   | 14.10      | <b>16.93</b> | 7    | 3.0                   |
| 8      | NH 22107 Bt                 | 17.22   | 21.39    | 17.39   | 12.70      | <b>17.18</b> | 6    | 4.5                   |
| 9      | CPDBt-2552                  | 20.20   | 23.33    | 20.37   | 10.80      | <b>18.68</b> | 3    | 13.6                  |
| 10     | <b>CICR 23 Bt (ZC Bt-1)</b> | 14.47   | 8.61     | 10.52   | 11.00      | <b>11.15</b> | 16   | -32.2                 |
| 11     | CCH 2623 Bt                 | 21.31   | 16.67    | 18.00   | 11.20      | <b>16.80</b> | 9    | 2.2                   |
| 12     | <b>PKV 081 Bt (ZC Bt-2)</b> | 16.60   | 21.34    | 14.82   | 13.00      | <b>16.44</b> | 10   | 0.0                   |
| 13     | NH 22076 Bt                 | 21.98   | 20.72    | 15.65   | 12.80      | <b>17.79</b> | 5    | 8.2                   |
| 14     | LHBt 23105                  | 15.47   | 12.29    | 7.84    | 12.60      | <b>12.05</b> | 15   | -26.7                 |
| 15     | CPDBt-2551                  | 18.33   | 21.94    | 19.21   | 13.10      | <b>18.15</b> | 4    | 10.4                  |
| 16     | LHBt 23110                  | 20.07   | 18.68    | 7.75    | 12.20      | <b>14.68</b> | 13   | -10.7                 |
| 17     | WGCV Bt 128                 | 17.34   | 20.79    | 9.62    | 12.80      | <b>15.14</b> | 12   | -7.9                  |
|        | CD @ 5%                     | 3.50    | 3.16     | 2.26    | 2.18       |              |      |                       |
|        | CV %                        | 11.80   | 10.40    | 9.40    | 10.97      |              |      |                       |



## Evaluation under Protected Condition for Insect pests

### Reaction to Insect Pests

**Table: Initial Variety trial in South Zone under Protected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |    |      |      |             | Remark      |
|----------------------|-----------------------------------|------|----|------|------|-------------|-------------|
|                      | NA                                | DH   | PE | AD   | MU   | Mean        |             |
| LRA 5166 Bt          | -                                 | 0.72 | -  | 0.57 | 1.91 | <b>1.06</b> | <b>BETL</b> |
| Anjali Bt            | -                                 | 0.58 | -  | 0.67 | 2.18 | <b>1.14</b> | <b>BETL</b> |
| LHBt 2203            | -                                 | 0.49 | -  | 0.62 | 3.54 | <b>1.55</b> | <b>BETL</b> |
| LHBt 23108           | -                                 | 1.20 | -  | 0.62 | 6.60 | <b>2.81</b> | <b>BETL</b> |
| NH 22095 Bt          | -                                 | 0.65 | -  | 0.63 | 2.73 | <b>1.34</b> | <b>BETL</b> |
| WGCV Bt 129          | -                                 | 0.83 | -  | 0.58 | 2.99 | <b>1.47</b> | <b>BETL</b> |
| Sumangala Bt         | -                                 | 0.60 | -  | 0.83 | 2.72 | <b>1.39</b> | <b>BETL</b> |
| NH 22107 Bt          | -                                 | 0.44 | -  | 0.64 | 5.04 | <b>2.04</b> | <b>BETL</b> |
| CPDBt-2552           | -                                 | 0.50 | -  | 0.64 | 1.63 | <b>0.93</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                 | 1.27 | -  | 1.26 | 3.40 | <b>1.98</b> | <b>BETL</b> |
| CCH 2623 Bt          | -                                 | 1.02 | -  | 0.48 | 2.31 | <b>1.27</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                 | 0.42 | -  | 0.69 | 2.79 | <b>1.30</b> | <b>BETL</b> |
| NH 22076 Bt          | -                                 | 0.48 | -  | 0.67 | 6.46 | <b>2.54</b> | <b>BETL</b> |
| LHBt 23105           | -                                 | 0.84 | -  | 1.04 | 2.18 | <b>1.35</b> | <b>BETL</b> |
| CPDBt-2551           | -                                 | 0.72 | -  | 0.75 | 1.50 | <b>0.99</b> | <b>BETL</b> |
| LHBt 23110           | -                                 | 0.46 | -  | 0.31 | 1.97 | <b>0.91</b> | <b>BETL</b> |
| WGCV Bt 128          | -                                 | 0.52 | -  | 0.77 | 1.91 | <b>1.07</b> | <b>BETL</b> |

**NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**





**Table: Initial Variety trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|----------------------|----------------------------------------|------|------|------|------|-------------|-------------|
|                      | NA                                     | DH   | PE   | AD   | MU   | Mean        |             |
| LRA 5166 Bt          | -                                      | 1.13 | 9.00 | 0.21 | 0.81 | <b>2.79</b> | <b>BETL</b> |
| Anjali Bt            | -                                      | 1.21 | 7.33 | 0.16 | 0.71 | <b>2.35</b> | <b>BETL</b> |
| LHBt 2203            | -                                      | 1.37 | 7.67 | 0.21 | 0.51 | <b>2.44</b> | <b>BETL</b> |
| LHBt 23108           | -                                      | 1.67 | 5.67 | 0.26 | 0.61 | <b>2.05</b> | <b>BETL</b> |
| NH 22095 Bt          | -                                      | 1.41 | 8.00 | 0.22 | 2.34 | <b>2.99</b> | <b>BETL</b> |
| WGCV Bt 129          | -                                      | 1.94 | 4.67 | 0.22 | 1.32 | <b>2.04</b> | <b>BETL</b> |
| Sumangala Bt         | -                                      | 1.15 | 6.33 | 0.28 | 1.63 | <b>2.35</b> | <b>BETL</b> |
| NH 22107 Bt          | -                                      | 1.28 | 4.67 | 0.24 | 0.61 | <b>1.70</b> | <b>BETL</b> |
| CPDBt-2552           | -                                      | 0.71 | 7.67 | 0.17 | 0.81 | <b>2.34</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                      | 1.34 | 6.00 | 0.19 | 1.22 | <b>2.19</b> | <b>BETL</b> |
| CCH 2623 Bt          | -                                      | 1.49 | 8.00 | 0.21 | 0.71 | <b>2.60</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                      | 1.44 | 7.00 | 0.26 | 0.40 | <b>2.28</b> | <b>BETL</b> |
| NH 22076 Bt          | -                                      | 1.91 | 5.67 | 0.27 | 0.20 | <b>2.01</b> | <b>BETL</b> |
| LHBt 23105           | -                                      | 0.51 | 4.33 | 0.25 | 1.53 | <b>1.66</b> | <b>BETL</b> |
| CPDBt-2551           | -                                      | 2.08 | 4.00 | 0.29 | 0.81 | <b>1.80</b> | <b>BETL</b> |
| LHBt 23110           | -                                      | 0.59 | 7.00 | 0.36 | 0.31 | <b>2.06</b> | <b>BETL</b> |
| WGCV Bt 128          | -                                      | 1.18 | 6.00 | 0.30 | 1.32 | <b>2.20</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions – JIG**

| Name of Entry        | JIG/plant |    |    |    |    |      | Remark |
|----------------------|-----------|----|----|----|----|------|--------|
|                      | NA        | DH | PE | AD | MU | Mean |        |
| LRA 5166 Bt          | -         |    | -  | -  | -  |      |        |
| Anjali Bt            | -         |    | -  | -  | -  |      |        |
| LHBt 2203            | -         |    | -  | -  | -  |      |        |
| LHBt 23108           | -         |    | -  | -  | -  |      |        |
| NH 22095 Bt          | -         |    | -  | -  | -  |      |        |
| WGCV Bt 129          | -         |    | -  | -  | -  |      |        |
| Sumangala Bt         | -         |    | -  | -  | -  |      |        |
| NH 22107 Bt          | -         |    | -  | -  | -  |      |        |
| CPDBt-2552           | -         |    | -  | -  | -  |      |        |
| CICR 23 Bt (ZC Bt-1) | -         |    | -  | -  | -  |      |        |
| CCH 2623 Bt          | -         |    | -  | -  | -  |      |        |
| PKV 081 Bt (ZC Bt-2) | -         |    | -  | -  | -  |      |        |
| NH 22076 Bt          | -         |    | -  | -  | -  |      |        |
| LHBt 23105           | -         |    | -  | -  | -  |      |        |
| CPDBt-2551           | -         |    | -  | -  | -  |      |        |
| LHBt 23110           | -         |    | -  | -  | -  |      |        |
| WGCV Bt 128          | -         |    | -  | -  | -  |      |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|----------------------|------------------------------------|------|------|------|------|-------------|--------|
|                      | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| LRA 5166 Bt          | -                                  | 0.92 | 0.00 | 0.37 | 1.78 | <b>0.77</b> | BETL   |
| Anjali Bt            | -                                  | 0.90 | 0.67 | 0.73 | 1.47 | <b>0.94</b> | BETL   |
| LHBt 2203            | -                                  | 0.50 | 0.00 | 0.47 | 2.24 | <b>0.80</b> | BETL   |
| LHBt 23108           | -                                  | 0.50 | 0.00 | 0.6  | 0.51 | <b>0.40</b> | BETL   |
| NH 22095 Bt          | -                                  | 1.06 | 0.00 | 0.77 | 1.25 | <b>0.77</b> | BETL   |
| WGCV Bt 129          | -                                  | 1.38 | 0.67 | 0.67 | 0.58 | <b>0.82</b> | BETL   |
| Sumangala Bt         | -                                  | 1.18 | 0.00 | 0.6  | 0.58 | <b>0.59</b> | BETL   |
| NH 22107 Bt          | -                                  | 1.62 | 0.00 | 0.43 | 0.26 | <b>0.58</b> | BETL   |
| CPDBt-2552           | -                                  | 2.08 | 0.00 | 0.63 | 0.51 | <b>0.80</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                  | 0.73 | 0.00 | 0.7  | 1.04 | <b>0.62</b> | BETL   |
| CCH 2623 Bt          | -                                  | 0.50 | 0.00 | 0.53 | 1.12 | <b>0.54</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                  | 1.07 | 0.00 | 0.53 | 0.58 | <b>0.55</b> | BETL   |
| NH 22076 Bt          | -                                  | 0.93 | 0.00 | 0.6  | 2.54 | <b>1.02</b> | BETL   |
| LHBt 23105           | -                                  | 1.33 | 0.00 | 0.8  | 1.30 | <b>0.86</b> | BETL   |
| CPDBt-2551           | -                                  | 0.97 | 0.67 | 0.9  | 3.38 | <b>1.48</b> | BETL   |
| LHBt 23110           | -                                  | 1.38 | 0.00 | 0.87 | 1.17 | <b>0.85</b> | BETL   |
| WGCV Bt 128          | -                                  | 1.86 | 0.00 | 0.67 | 0.76 | <b>0.82</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|------|-------------|--------|
|                      | NA                                   | DH   | PE   | AD   | MU   | Mean        |        |
| LRA 5166 Bt          | -                                    | 0.18 | 0.33 | 0.23 | 1.08 | <b>0.45</b> | BETL   |
| Anjali Bt            | -                                    | 0.16 | 0.00 | 0.27 | 0.63 | <b>0.26</b> | BETL   |
| LHBt 2203            | -                                    | 0.21 | 0.33 | 0.33 | 0.71 | <b>0.40</b> | BETL   |
| LHBt 23108           | -                                    | 0.13 | 0.00 | 0.23 | 0.30 | <b>0.17</b> | BETL   |
| NH 22095 Bt          | -                                    | 0.15 | 0.00 | 0.20 | 0.30 | <b>0.16</b> | BETL   |
| WGCV Bt 129          | -                                    | 0.19 | 0.00 | 0.40 | 0.82 | <b>0.35</b> | BETL   |
| Sumangala Bt         | -                                    | 0.13 | 0.00 | 0.40 | 0.89 | <b>0.36</b> | BETL   |
| NH 22107 Bt          | -                                    | 0.16 | 0.00 | 0.43 | 0.48 | <b>0.27</b> | BETL   |
| CPDBt-2552           | -                                    | 0.42 | 1.00 | 0.37 | 1.08 | <b>0.72</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                    | 0.09 | 1.33 | 0.30 | 0.41 | <b>0.53</b> | BETL   |
| CCH 2623 Bt          | -                                    | 0.06 | 0.00 | 0.33 | 1.15 | <b>0.38</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                    | 0.40 | 0.33 | 0.30 | 0.59 | <b>0.41</b> | BETL   |
| NH 22076 Bt          | -                                    | 0.11 | 2.00 | 0.23 | 0.85 | <b>0.80</b> | BETL   |
| LHBt 23105           | -                                    | 0.02 | 2.00 | 0.40 | 1.23 | <b>0.91</b> | BETL   |
| CPDBt-2551           | -                                    | 0.00 | 1.00 | 0.37 | 1.45 | <b>0.70</b> | BETL   |
| LHBt 23110           | -                                    | 0.15 | 0.67 | 0.33 | 1.19 | <b>0.58</b> | BETL   |
| WGCV Bt 128          | -                                    | 0.17 | 0.00 | 0.37 | 0.67 | <b>0.30</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No. / plant) |      |      |    |    |             | Remark |
|----------------------|-------------------------------|------|------|----|----|-------------|--------|
|                      | NA                            | DH   | PE   | AD | MU | Mean        |        |
| LRA 5166 Bt          | -                             | 0.29 | 0.00 | -  | -  | <b>0.14</b> |        |
| Anjali Bt            | -                             | 0.22 | 0.00 | -  | -  | <b>0.11</b> |        |
| LHBt 2203            | -                             | 0.49 | 0.00 | -  | -  | <b>0.25</b> |        |
| LHBt 23108           | -                             | 0.53 | 0.00 | -  | -  | <b>0.26</b> |        |
| NH 22095 Bt          | -                             | 0.54 | 0.00 | -  | -  | <b>0.27</b> |        |
| WGCV Bt 129          | -                             | 0.46 | 0.00 | -  | -  | <b>0.23</b> |        |
| Sumangala Bt         | -                             | 0.40 | 0.00 | -  | -  | <b>0.20</b> |        |
| NH 22107 Bt          | -                             | 0.29 | 0.00 | -  | -  | <b>0.15</b> |        |
| CPDBt-2552           | -                             | 0.46 | 0.00 | -  | -  | <b>0.23</b> |        |
| CICR 23 Bt (ZC Bt-1) | -                             | 0.63 | 0.00 | -  | -  | <b>0.31</b> |        |
| CCH 2623 Bt          | -                             | 0.44 | 0.00 | -  | -  | <b>0.22</b> |        |
| PKV 081 Bt (ZC Bt-2) | -                             | 0.29 | 0.00 | -  | -  | <b>0.15</b> |        |
| NH 22076 Bt          | -                             | 0.60 | 0.00 | -  | -  | <b>0.30</b> |        |
| LHBt 23105           | -                             | 0.56 | 0.00 | -  | -  | <b>0.28</b> |        |
| CPDBt-2551           | -                             | 0.48 | 0.00 | -  | -  | <b>0.24</b> |        |
| LHBt 23110           | -                             | 0.47 | 0.00 | -  | -  | <b>0.23</b> |        |
| WGCV Bt 128          | -                             | 0.20 | 0.00 | -  | -  | <b>0.10</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions– *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |    |             | Remark |
|----------------------|---------------------------------------------|------|------|------|----|-------------|--------|
|                      | NA                                          | DH   | PE   | AD   | MU | Mean        |        |
| LRA 5166 Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Anjali Bt            | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| LHBt 2203            | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| LHBt 23108           | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| NH 22095 Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| WGCV Bt 129          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Sumangala Bt         | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| NH 22107 Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CPDBt-2552           | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CCH 2623 Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| NH 22076 Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| LHBt 23105           | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CPDBt-2551           | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| LHBt 23110           | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| WGCV Bt 128          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Protected Conditions –Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No. /5 plants) |      |      |      |    |      | Remark |
|----------------------|-----------------------------------|------|------|------|----|------|--------|
|                      | NA                                | DH   | PE   | AD   | MU | Mean |        |
| LRA 5166 Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Anjali Bt            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 2203            | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23108           | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22095 Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 129          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Sumangala Bt         | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22107 Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2552           | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 2623 Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22076 Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23105           | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2551           | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23110           | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 128          | -                                 | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No./5 plants) |      |      |      |    |      | Remark |
|----------------------|-----------------------------------------|------|------|------|----|------|--------|
|                      | NA                                      | DH   | PE   | AD   | MU | Mean |        |
| LRA 5166 Bt          | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Anjali Bt            | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 2203            | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23108           | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22095 Bt          | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 129          | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Sumangala Bt         | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22107 Bt          | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2552           | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 2623 Bt          | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22076 Bt          | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23105           | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2551           | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23110           | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 128          | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |      | Remark |
|----------------------|---------------------------------------------------------|------|------|------|----|------|--------|
|                      | NA                                                      | DH   | PE   | AD#  | MU | Mean |        |
| LRA 5166 Bt          | -                                                       | 0.50 | 1.80 | 0.73 | -  | 1.01 | AETL   |
| Anjali Bt            | -                                                       | 1.83 | 1.30 | 0.00 | -  | 1.04 | AETL   |
| LHBt 2203            | -                                                       | 0.50 | 1.15 | 0.27 | -  | 0.64 | BETL   |
| LHBt 23108           | -                                                       | 0.50 | 1.30 | 0.00 | -  | 0.60 | BETL   |
| NH 22095 Bt          | -                                                       | 0.67 | 1.97 | 0.27 | -  | 0.97 | BETL   |
| WGCV Bt 129          | -                                                       | 1.00 | 0.64 | 0.60 | -  | 0.75 | BETL   |
| Sumangala Bt         | -                                                       | 0.33 | 0.97 | 0.87 | -  | 0.72 | BETL   |
| NH 22107 Bt          | -                                                       | 0.83 | 2.33 | 0.93 | -  | 1.36 | AETL   |
| CPDBt-2552           | -                                                       | 0.50 | 1.15 | 0.07 | -  | 0.57 | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                                       | 0.33 | 1.20 | 0.60 | -  | 0.71 | BETL   |
| CCH 2623 Bt          | -                                                       | 0.33 | 1.27 | 0.27 | -  | 0.62 | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                                       | 0.67 | 1.17 | 0.80 | -  | 0.88 | BETL   |
| NH 22076 Bt          | -                                                       | 0.67 | 1.57 | 0.20 | -  | 0.81 | BETL   |
| LHBt 23105           | -                                                       | 2.17 | 1.30 | 0.00 | -  | 1.16 | AETL   |
| CPDBt-2551           | -                                                       | 0.50 | 1.77 | 0.00 | -  | 0.76 | BETL   |
| LHBt 23110           | -                                                       | 1.17 | 1.66 | 0.73 | -  | 1.19 | AETL   |
| WGCV Bt 128          | -                                                       | 1.67 | 0.87 | 0.53 | -  | 1.02 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations

**Table: Initial Variety trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |      | Remark |
|----------------------|-----------------------------------------|------|----|------|----|------|--------|
|                      | NA                                      | DH   | PE | AD   | MU | Mean |        |
| LRA 5166 Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Anjali Bt            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 2203            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 23108           | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22095 Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 129          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Sumangala Bt         | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22107 Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2552           | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 2623 Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22076 Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 23105           | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2551           | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 23110           | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 128          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |



NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |       |    |       |    |              | Remark |
|----------------------|-------------------------------------------------------|-------|----|-------|----|--------------|--------|
|                      | NA                                                    | DH    | PE | AD    | MU | Mean         |        |
| LRA 5166 Bt          | -                                                     | 5.00  | -  | 20.67 | -  | <b>12.84</b> | BETL   |
| Anjali Bt            | -                                                     | 16.67 | -  | 20.67 | -  | <b>18.67</b> | AETL   |
| LHBt 2203            | -                                                     | 8.33  | -  | 24.00 | -  | <b>16.17</b> | AETL   |
| LHBt 23108           | -                                                     | 8.33  | -  | 22.00 | -  | <b>15.17</b> | AETL   |
| NH 22095 Bt          | -                                                     | 10.00 | -  | 24.00 | -  | <b>17.00</b> | AETL   |
| WGCV Bt 129          | -                                                     | 10.00 | -  | 22.67 | -  | <b>16.34</b> | AETL   |
| Sumangala Bt         | -                                                     | 5.00  | -  | 34.00 | -  | <b>19.50</b> | AETL   |
| NH 22107 Bt          | -                                                     | 10.00 | -  | 34.00 | -  | <b>22.00</b> | AETL   |
| CPDBt-2552           | -                                                     | 5.00  | -  | 31.33 | -  | <b>18.17</b> | AETL   |
| CICR 23 Bt (ZC Bt-1) | -                                                     | 10.00 | -  | 23.33 | -  | <b>16.67</b> | AETL   |
| CCH 2623 Bt          | -                                                     | 8.33  | -  | 22.67 | -  | <b>15.50</b> | AETL   |
| PKV 081 Bt (ZC Bt-2) | -                                                     | 6.67  | -  | 24.00 | -  | <b>15.34</b> | AETL   |
| NH 22076 Bt          | -                                                     | 10.00 | -  | 24.67 | -  | <b>17.34</b> | AETL   |
| LHBt 23105           | -                                                     | 15.00 | -  | 26.00 | -  | <b>20.50</b> | AETL   |
| CPDBt-2551           | -                                                     | 5.00  | -  | 26.00 | -  | <b>15.50</b> | AETL   |
| LHBt 23110           | -                                                     | 8.33  | -  | 26.00 | -  | <b>17.17</b> | AETL   |
| WGCV Bt 128          | -                                                     | 8.33  | -  | 28.00 | -  | <b>18.17</b> | AETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |      |       |    |              | Remark |
|----------------------|----------------------|-------|------|-------|----|--------------|--------|
|                      | NA                   | DH    | PE   | AD    | MU | Mean         |        |
| LRA 5166 Bt          | -                    | 4.08  | 6.00 | 14.00 | -  | <b>8.03</b>  |        |
| Anjali Bt            | -                    | 11.09 | 5.00 | 14.00 | -  | <b>10.03</b> |        |
| LHBt 2203            | -                    | 12.68 | 7.00 | 15.00 | -  | <b>11.56</b> |        |
| LHBt 23108           | -                    | 7.69  | 6.00 | 12.00 | -  | <b>8.56</b>  |        |
| NH 22095 Bt          | -                    | 12.17 | 4.00 | 14.00 | -  | <b>10.06</b> |        |
| WGCV Bt 129          | -                    | 12.15 | 7.00 | 13.33 | -  | <b>10.83</b> |        |
| Sumangala Bt         | -                    | 8.66  | 6.00 | 16.67 | -  | <b>10.44</b> |        |
| NH 22107 Bt          | -                    | 8.33  | 6.00 | 19.00 | -  | <b>11.11</b> |        |
| CPDBt-2552           | -                    | 7.27  | 8.00 | 20.00 | -  | <b>11.76</b> |        |
| CICR 23 Bt (ZC Bt-1) | -                    | 10.51 | 5.00 | 15.00 | -  | <b>10.17</b> |        |
| CCH 2623 Bt          | -                    | 12.90 | 4.00 | 15.00 | -  | <b>10.63</b> |        |
| PKV 081 Bt (ZC Bt-2) | -                    | 8.75  | 7.00 | 20.00 | -  | <b>11.92</b> |        |
| NH 22076 Bt          | -                    | 11.55 | 5.00 | 18.33 | -  | <b>11.63</b> |        |
| LHBt 23105           | -                    | 15.42 | 7.00 | 20.00 | -  | <b>14.14</b> |        |
| CPDBt-2551           | -                    | 2.74  | 6.00 | 18.33 | -  | <b>9.02</b>  |        |
| LHBt 23110           | -                    | 6.07  | 5.00 | 15.00 | -  | <b>8.69</b>  |        |
| WGCV Bt 128          | -                    | 6.44  | 4.00 | 20.00 | -  | <b>10.15</b> |        |



NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |       |      |       |    |             | Remark |
|----------------------|-------------------|-------|------|-------|----|-------------|--------|
|                      | NA                | DH    | PE   | AD    | MU | Mean        |        |
| LRA 5166 Bt          | -                 | 6.42  | 3.00 | 6.67  | -  | <b>5.36</b> |        |
| Anjali Bt            | -                 | 10.17 | 2.00 | 5.83  | -  | <b>6.00</b> |        |
| LHBt 2203            | -                 | 12.33 | 2.00 | 6.33  | -  | <b>6.89</b> |        |
| LHBt 23108           | -                 | 12.42 | 2.00 | 5.33  | -  | <b>6.58</b> |        |
| NH 22095 Bt          | -                 | 7.58  | 1.00 | 7.67  | -  | <b>5.42</b> |        |
| WGCV Bt 129          | -                 | 7.33  | 3.00 | 12.83 | -  | <b>7.72</b> |        |
| Sumangala Bt         | -                 | 5.42  | 2.00 | 6.50  | -  | <b>4.64</b> |        |
| NH 22107 Bt          | -                 | 5.67  | 3.00 | 9.83  | -  | <b>6.17</b> |        |
| CPDBt-2552           | -                 | 5.75  | 4.00 | 8.17  | -  | <b>5.97</b> |        |
| CICR 23 Bt (ZC Bt-1) | -                 | 9.25  | 2.00 | 6.67  | -  | <b>5.97</b> |        |
| CCH 2623 Bt          | -                 | 10.17 | 1.00 | 7.67  | -  | <b>6.28</b> |        |
| PKV 081 Bt (ZC Bt-2) | -                 | 10.67 | 3.00 | 9.33  | -  | <b>7.67</b> |        |
| NH 22076 Bt          | -                 | 9.42  | 3.00 | 10.50 | -  | <b>7.64</b> |        |
| LHBt 23105           | -                 | 14.17 | 3.00 | 8.00  | -  | <b>8.39</b> |        |
| CPDBt-2551           | -                 | 5.92  | 2.00 | 9.67  | -  | <b>5.86</b> |        |
| LHBt 23110           | -                 | 7.08  | 2.00 | 6.33  | -  | <b>5.14</b> |        |
| WGCV Bt 128          | -                 | 8.58  | 1.00 | 8.17  | -  | <b>5.92</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|----------------------|------------------------------------|------|------|------|------|-------------|--------|
|                      | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| LRA 5166 Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Anjali Bt            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| LHBt 2203            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| LHBt 23108           | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NH 22095 Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| WGCV Bt 129          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Sumangala Bt         | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NH 22107 Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CPDBt-2552           | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CICR 23 Bt (ZC Bt-1) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH 2623 Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| PKV 081 Bt (ZC Bt-2) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NH 22076 Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| LHBt 23105           | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CPDBt-2551           | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| LHBt 23110           | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| WGCV Bt 128          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 16(a): Initial Evaluation Trial of Hirsutum Varieties – Rainfed (IET Variety RF) under Protected conditions**

| Code-I    | Code-II      | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions: UAS Dharwad |    |      |    |      |    |      |    |
|-----------|--------------|-----------------------------|------------------------------------------------------------------------|----|------|----|------|----|------|----|
|           |              |                             | ALB                                                                    |    | BLB  |    | GM   |    | Rust |    |
|           |              |                             | PDI                                                                    | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 11        | 56101        | LRA 5166 Bt                 | 22.8                                                                   | R  | 10.2 | R  | 14.1 | R  | 18.3 | R  |
| 16        | 56102        | Anjali Bt                   | 21.8                                                                   | R  | 9.9  | R  | 12.5 | R  | 18.4 | R  |
| 8         | 56103        | LHBt 2203                   | 21.3                                                                   | R  | 10.1 | R  | 14.3 | R  | 18.2 | R  |
| 4         | 56104        | LHBt 23108                  | 23.5                                                                   | R  | 10.8 | R  | 13.9 | R  | 18.2 | R  |
| 17        | 56105        | NH 22095 Bt                 | 23.7                                                                   | R  | 9.9  | R  | 14.3 | R  | 18.7 | R  |
| 2         | 56106        | WGCV Bt 129                 | 23.5                                                                   | R  | 10.3 | R  | 13.0 | R  | 18.4 | R  |
| 7         | 56107        | Sumangala Bt                | 21.9                                                                   | R  | 10.3 | R  | 13.6 | R  | 17.9 | R  |
| 1         | 56108        | NH 22107 Bt                 | 21.9                                                                   | R  | 9.8  | R  | 11.8 | R  | 19.2 | R  |
| 6         | 56109        | CPDBt-2552                  | 22.5                                                                   | R  | 9.6  | R  | 12.6 | R  | 17.6 | R  |
| <b>10</b> | <b>56110</b> | <b>CICR 23 Bt (ZC Bt-1)</b> | 21.8                                                                   | R  | 10.7 | R  | 12.5 | R  | 18.6 | R  |
| 15        | 56111        | CCH 2623 Bt                 | 20.8                                                                   | R  | 9.5  | R  | 13.1 | R  | 17.9 | R  |
| <b>3</b>  | <b>56112</b> | <b>PKV 081 Bt (ZC Bt-2)</b> | 21.4                                                                   | R  | 9.7  | R  | 12.5 | R  | 17.9 | R  |
| 9         | 56113        | NH 22076 Bt                 | 22.4                                                                   | R  | 10.3 | R  | 12.3 | R  | 18.8 | R  |
| 5         | 56114        | LHBt 23105                  | 20.9                                                                   | R  | 11.1 | R  | 12.1 | R  | 19.1 | R  |
| 13        | 56115        | CPDBt-2551                  | 21.4                                                                   | R  | 9.8  | R  | 12.7 | R  | 18.8 | R  |
| 14        | 56116        | LHBt 23110                  | 22.8                                                                   | R  | 8.8  | R  | 16.8 | R  | 18.1 | R  |
| 12        | 56117        | WGCV Bt 128                 | 21.3                                                                   | R  | 10.8 | R  | 17.2 | R  | 16.7 | R  |





## Evaluation under Unprotected Condition for Insect pests

### Reaction to Insect Pests

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |      |       |             | Remark |
|----------------------|-----------------------------------|------|------|-------|-------------|--------|
|                      | DH                                | PE   | AD   | MU    | Mean        |        |
| LRA 5166 Bt          | 8.33                              | 1.33 | 0.49 | 3.13  | <b>3.32</b> | BETL   |
| Anjali Bt            | 7.82                              | 0.67 | 0.51 | 3.57  | <b>3.14</b> | BETL   |
| LHBt 2203            | 7.27                              | 1.33 | 0.31 | 5.81  | <b>3.68</b> | BETL   |
| LHBt 23108           | 8.18                              | 1.00 | 0.44 | 10.84 | <b>5.11</b> | BETL   |
| NH 22095 Bt          | 8.78                              | 1.00 | 0.22 | 3.96  | <b>3.49</b> | BETL   |
| WGCV Bt 129          | 8.18                              | 0.00 | 0.26 | 4.92  | <b>3.34</b> | BETL   |
| Sumangala Bt         | 8.87                              | 0.33 | 0.69 | 4.47  | <b>3.59</b> | BETL   |
| NH 22107 Bt          | 7.69                              | 1.00 | 0.38 | 8.27  | <b>4.33</b> | BETL   |
| CPDBt-2552           | 8.56                              | 1.00 | 0.60 | 2.68  | <b>3.21</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | 6.20                              | 0.33 | 0.71 | 5.59  | <b>3.21</b> | BETL   |
| CCH 2623 Bt          | 7.51                              | 1.00 | 0.31 | 3.80  | <b>3.15</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | 9.13                              | 0.67 | 0.47 | 4.57  | <b>3.71</b> | BETL   |
| NH 22076 Bt          | 6.71                              | 0.67 | 0.51 | 9.01  | <b>4.22</b> | BETL   |
| LHBt 23105           | 7.02                              | 0.67 | 0.84 | 3.57  | <b>3.03</b> | BETL   |
| CPDBt-2551           | 8.36                              | 0.33 | 0.64 | 2.46  | <b>2.95</b> | BETL   |
| LHBt 23110           | 6.87                              | 0.33 | 0.17 | 3.24  | <b>2.65</b> | BETL   |
| WGCV Bt 128          | 7.56                              | 1.50 | 0.69 | 3.13  | <b>3.22</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |       |      |      |             | Remark |
|----------------------|----------------------------------------|-------|------|------|-------------|--------|
|                      | DH                                     | PE    | AD   | MU   | Mean        |        |
| LRA 5166 Bt          | 1.84                                   | 13.00 | 0.24 | 1.35 | <b>4.11</b> | BETL   |
| Anjali Bt            | 3.27                                   | 5.67  | 0.15 | 1.18 | <b>2.57</b> | BETL   |
| LHBt 2203            | 2.77                                   | 7.00  | 0.66 | 0.85 | <b>2.82</b> | BETL   |
| LHBt 23108           | 2.71                                   | 10.00 | 0.35 | 1.01 | <b>3.52</b> | BETL   |
| NH 22095 Bt          | 3.07                                   | 10.67 | 0.31 | 3.88 | <b>4.48</b> | BETL   |
| WGCV Bt 129          | 1.78                                   | 6.67  | 0.51 | 2.19 | <b>2.79</b> | BETL   |
| Sumangala Bt         | 2.09                                   | 7.67  | 0.48 | 2.70 | <b>3.23</b> | BETL   |
| NH 22107 Bt          | 1.98                                   | 7.00  | 0.40 | 1.01 | <b>2.60</b> | BETL   |
| CPDBt-2552           | 2.71                                   | 3.67  | 0.29 | 1.35 | <b>2.00</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | 1.67                                   | 4.33  | 0.31 | 2.02 | <b>2.08</b> | BETL   |
| CCH 2623 Bt          | 3.20                                   | 10.33 | 0.28 | 1.18 | <b>3.75</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | 1.53                                   | 6.00  | 0.33 | 0.67 | <b>2.13</b> | BETL   |
| NH 22076 Bt          | 1.84                                   | 4.33  | 0.46 | 0.34 | <b>1.74</b> | BETL   |
| LHBt 23105           | 2.73                                   | 7.00  | 0.64 | 2.53 | <b>3.23</b> | BETL   |
| CPDBt-2551           | 3.02                                   | 5.67  | 0.60 | 1.35 | <b>2.66</b> | BETL   |
| LHBt 23110           | 2.98                                   | 9.00  | 0.64 | 0.51 | <b>3.28</b> | BETL   |
| WGCV Bt 128          | 2.93                                   | 8.33  | 0.46 | 2.19 | <b>3.48</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry        | JIG/plant |    |    |    |      | Remark |
|----------------------|-----------|----|----|----|------|--------|
|                      | DH        | PE | AD | MU | Mean |        |
| LRA 5166 Bt          | I         | -  | -  | -  | I    |        |
| Anjali Bt            | II        | -  | -  | -  | II   |        |
| LHBt 2203            | II        | -  | -  | -  | II   |        |
| LHBt 23108           | II        | -  | -  | -  | II   |        |
| NH 22095 Bt          | II        | -  | -  | -  | II   |        |
| WGCV Bt 129          | I         | -  | -  | -  | I    |        |
| Sumangala Bt         | I         | -  | -  | -  | I    |        |
| NH 22107 Bt          | I         | -  | -  | -  | I    |        |
| CPDBt-2552           | I         | -  | -  | -  | I    |        |
| CICR 23 Bt (ZC Bt-1) | II        | -  | -  | -  | II   |        |
| CCH 2623 Bt          | II        | -  | -  | -  | II   |        |
| PKV 081 Bt (ZC Bt-2) | I         | -  | -  | -  | I    |        |
| NH 22076 Bt          | I         | -  | -  | -  | I    |        |
| LHBt 23105           | II        | -  | -  | -  | II   |        |
| CPDBt-2551           | II        | -  | -  | -  | II   |        |
| LHBt 23110           | II        | -  | -  | -  | II   |        |
| WGCV Bt 128          | II        | -  | -  | -  | II   |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|-------------|-------------|
|                      | DH                                 | PE   | AD   | MU   | Mean        |             |
| LRA 5166 Bt          | 22.60                              | 1.67 | 1.44 | 2.16 | <b>6.97</b> | <b>BETL</b> |
| Anjali Bt            | 16.56                              | 3.33 | 1.13 | 1.79 | <b>5.70</b> | <b>BETL</b> |
| LHBt 2203            | 15.38                              | 4.00 | 1.11 | 2.71 | <b>5.80</b> | <b>BETL</b> |
| LHBt 23108           | 16.22                              | 1.67 | 1.17 | 0.62 | <b>4.92</b> | <b>BETL</b> |
| NH 22095 Bt          | 15.47                              | 3.67 | 1.11 | 1.51 | <b>5.44</b> | <b>BETL</b> |
| WGCV Bt 129          | 22.18                              | 2.67 | 1.45 | 0.71 | <b>6.75</b> | <b>BETL</b> |
| Sumangala Bt         | 16.84                              | 3.00 | 1.66 | 0.71 | <b>5.55</b> | <b>BETL</b> |
| NH 22107 Bt          | 16.82                              | 3.00 | 1.35 | 1.26 | <b>5.61</b> | <b>BETL</b> |
| CPDBt-2552           | 17.13                              | 3.33 | 1.38 | 0.62 | <b>5.62</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 16.73                              | 1.33 | 1.33 | 1.26 | <b>5.17</b> | <b>BETL</b> |
| CCH 2623 Bt          | 21.76                              | 3.33 | 1.53 | 1.36 | <b>6.99</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 18.24                              | 2.00 | 1.2  | 0.71 | <b>5.54</b> | <b>BETL</b> |
| NH 22076 Bt          | 16.89                              | 2.00 | 1.26 | 3.08 | <b>5.81</b> | <b>BETL</b> |
| LHBt 23105           | 16.02                              | 2.00 | 1.42 | 1.57 | <b>5.25</b> | <b>BETL</b> |
| CPDBt-2551           | 15.42                              | 3.00 | 1.17 | 4.10 | <b>5.92</b> | <b>BETL</b> |
| LHBt 23110           | 16.60                              | 3.33 | 1.35 | 1.42 | <b>5.68</b> | <b>BETL</b> |
| WGCV Bt 128          | 20.24                              | 3.33 | 1.04 | 0.93 | <b>6.39</b> | <b>BETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | DH                                   | PE   | AD   | MU   | Mean        |        |
| LRA 5166 Bt          | 0.84                                 | 1.00 | 0.15 | 1.53 | <b>0.88</b> | BETL   |
| Anjali Bt            | 0.70                                 | 0.00 | 0.18 | 0.90 | <b>0.44</b> | BETL   |
| LHBt 2203            | 0.80                                 | 0.33 | 0.31 | 1.00 | <b>0.61</b> | BETL   |
| LHBt 23108           | 0.84                                 | 1.00 | 0.24 | 0.42 | <b>0.63</b> | BETL   |
| NH 22095 Bt          | 0.84                                 | 1.00 | 0.22 | 0.42 | <b>0.62</b> | BETL   |
| WGCV Bt 129          | 1.10                                 | 0.67 | 0.57 | 1.16 | <b>0.88</b> | BETL   |
| Sumangala Bt         | 1.24                                 | 0.67 | 0.33 | 1.27 | <b>0.88</b> | BETL   |
| NH 22107 Bt          | 0.62                                 | 1.00 | 0.44 | 0.69 | <b>0.69</b> | BETL   |
| CPDBt-2552           | 0.97                                 | 1.00 | 0.35 | 1.53 | <b>0.96</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.87                                 | 1.00 | 0.33 | 0.58 | <b>0.69</b> | BETL   |
| CCH 2623 Bt          | 1.20                                 | 1.00 | 0.33 | 1.64 | <b>1.04</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.72                                 | 0.67 | 0.37 | 0.85 | <b>0.65</b> | BETL   |
| NH 22076 Bt          | 1.06                                 | 0.33 | 0.33 | 1.22 | <b>0.73</b> | BETL   |
| LHBt 23105           | 0.73                                 | 0.33 | 0.35 | 1.75 | <b>0.79</b> | BETL   |
| CPDBt-2551           | 1.09                                 | 0.67 | 0.38 | 2.06 | <b>1.05</b> | BETL   |
| LHBt 23110           | 0.69                                 | 1.00 | 0.29 | 1.69 | <b>0.92</b> | BETL   |
| WGCV Bt 128          | 0.38                                 | 0.00 | 0.15 | 0.95 | <b>0.37</b> | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No. / plant) |      |      |    |             | Remark |
|----------------------|-------------------------------|------|------|----|-------------|--------|
|                      | DH                            | PE   | AD   | MU | Mean        |        |
| LRA 5166 Bt          | 0.83                          | 0.00 | 0.33 | -  | <b>0.39</b> |        |
| Anjali Bt            | 0.92                          | 0.00 | 0.20 | -  | <b>0.37</b> |        |
| LHBt 2203            | 1.26                          | 0.00 | 0.13 | -  | <b>0.46</b> |        |
| LHBt 23108           | 1.69                          | 0.00 | 0.27 | -  | <b>0.65</b> |        |
| NH 22095 Bt          | 0.98                          | 0.00 | 0.26 | -  | <b>0.41</b> |        |
| WGCV Bt 129          | 1.24                          | 0.00 | 0.13 | -  | <b>0.46</b> |        |
| Sumangala Bt         | 0.84                          | 0.00 | 0.27 | -  | <b>0.37</b> |        |
| NH 22107 Bt          | 1.45                          | 0.00 | 0.07 | -  | <b>0.51</b> |        |
| CPDBt-2552           | 1.42                          | 0.00 | 0.14 | -  | <b>0.52</b> |        |
| CICR 23 Bt (ZC Bt-1) | 0.96                          | 0.00 | 0.11 | -  | <b>0.36</b> |        |
| CCH 2623 Bt          | 1.63                          | 0.00 | 0.13 | -  | <b>0.59</b> |        |
| PKV 081 Bt (ZC Bt-2) | 1.60                          | 0.00 | 0.33 | -  | <b>0.64</b> |        |
| NH 22076 Bt          | 1.02                          | 0.00 | 0.20 | -  | <b>0.41</b> |        |
| LHBt 23105           | 0.94                          | 0.00 | 0.07 | -  | <b>0.34</b> |        |
| CPDBt-2551           | 1.53                          | 0.00 | 0.27 | -  | <b>0.60</b> |        |
| LHBt 23110           | 1.57                          | 0.00 | 0.07 | -  | <b>0.55</b> |        |
| WGCV Bt 128          | 0.96                          | 0.00 | 0.33 | -  | <b>0.43</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Unprotected Conditions– *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |    |      | Remark |
|----------------------|---------------------------------------------|------|------|----|------|--------|
|                      | DH                                          | PE   | AD   | MU | Mean |        |
| LRA 5166 Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Anjali Bt            | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 2203            | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23108           | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22095 Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 129          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Sumangala Bt         | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22107 Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2552           | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 2623 Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22076 Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23105           | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2551           | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23110           | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 128          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No. /5 plants) |      |      |    |      | Remark |
|----------------------|-----------------------------------|------|------|----|------|--------|
|                      | DH                                | PE   | AD   | MU | Mean |        |
| LRA 5166 Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Anjali Bt            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 2203            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23108           | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22095 Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 129          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Sumangala Bt         | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22107 Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2552           | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 2623 Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22076 Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23105           | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2551           | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23110           | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 128          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No. /5 plants) |      |      |    |      | Remark |
|----------------------|------------------------------------------|------|------|----|------|--------|
|                      | DH                                       | PE   | AD   | MU | Mean |        |
| LRA 5166 Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Anjali Bt            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 2203            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23108           | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22095 Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 129          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Sumangala Bt         | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22107 Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2552           | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 2623 Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22076 Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23105           | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2551           | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| LHBt 23110           | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| WGCV Bt 128          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry        | Pink bollworm Larva (No./10 bolls destructive sampling) |      |      |    |      | Remark |
|----------------------|---------------------------------------------------------|------|------|----|------|--------|
|                      | DH                                                      | PE   | AD#  | MU | Mean |        |
| LRA 5166 Bt          | 1.17                                                    | 1.39 | 1.60 | -  | 1.39 | AETL   |
| Anjali Bt            | 3.00                                                    | 1.29 | 0.40 | -  | 1.56 | AETL   |
| LHBt 2203            | 2.00                                                    | 1.69 | 2.20 | -  | 1.96 | AETL   |
| LHBt 23108           | 3.50                                                    | 1.42 | 0.60 | -  | 1.84 | AETL   |
| NH 22095 Bt          | 1.83                                                    | 1.89 | 0.80 | -  | 1.51 | AETL   |
| WGCV Bt 129          | 3.00                                                    | 1.78 | 1.60 | -  | 2.13 | AETL   |
| Sumangala Bt         | 1.33                                                    | 0.99 | 1.20 | -  | 1.17 | AETL   |
| NH 22107 Bt          | 1.50                                                    | 1.42 | 2.00 | -  | 1.64 | AETL   |
| CPDBt-2552           | 1.00                                                    | 1.27 | 0.40 | -  | 0.89 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 2.00                                                    | 1.42 | 1.20 | -  | 1.54 | AETL   |
| CCH 2623 Bt          | 1.67                                                    | 2.09 | 1.00 | -  | 1.59 | AETL   |
| PKV 081 Bt (ZC Bt-2) | 1.17                                                    | 0.76 | 0.40 | -  | 0.78 | BETL   |
| NH 22076 Bt          | 2.00                                                    | 1.92 | 0.40 | -  | 1.44 | AETL   |
| LHBt 23105           | 3.33                                                    | 1.09 | 2.80 | -  | 2.41 | AETL   |
| CPDBt-2551           | 1.00                                                    | 2.45 | 0.00 | -  | 1.15 | AETL   |
| LHBt 23110           | 3.33                                                    | 1.27 | 0.80 | -  | 1.80 | AETL   |
| WGCV Bt 128          | 2.50                                                    | 1.32 | 0.20 | -  | 1.34 | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Green Boll  
Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |      | Remark |
|----------------------|-----------------------------------------|----|------|----|------|--------|
|                      | DH                                      | PE | AD   | MU | Mean |        |
| LRA 5166 Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Anjali Bt            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 2203            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 23108           | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22095 Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| WGCv Bt 129          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Sumangala Bt         | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22107 Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2552           | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 2623 Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22076 Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 23105           | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt-2551           | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| LHBt 23110           | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| WGCv Bt 128          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Green Boll  
Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |       | Remark |
|----------------------|-------------------------------------------------------|----|-------|----|-------|--------|
|                      | DH                                                    | PE | AD    | MU | Mean  |        |
| LRA 5166 Bt          | 10.00                                                 | -  | 26.00 | -  | 18.00 | AETL   |
| Anjali Bt            | 26.67                                                 | -  | 14.00 | -  | 20.34 | AETL   |
| LHBt 2203            | 16.67                                                 | -  | 28.00 | -  | 22.34 | AETL   |
| LHBt 23108           | 8.33                                                  | -  | 14.00 | -  | 11.17 | AETL   |
| NH 22095 Bt          | 18.33                                                 | -  | 22.00 | -  | 20.17 | AETL   |
| WGCv Bt 129          | 23.33                                                 | -  | 18.00 | -  | 20.67 | AETL   |
| Sumangala Bt         | 11.67                                                 | -  | 24.00 | -  | 17.84 | AETL   |
| NH 22107 Bt          | 20.00                                                 | -  | 22.00 | -  | 21.00 | AETL   |
| CPDBt-2552           | 10.00                                                 | -  | 24.00 | -  | 17.00 | AETL   |
| CICR 23 Bt (ZC Bt-1) | 11.67                                                 | -  | 20.00 | -  | 15.84 | AETL   |
| CCH 2623 Bt          | 15.00                                                 | -  | 22.00 | -  | 18.50 | AETL   |
| PKV 081 Bt (ZC Bt-2) | 8.33                                                  | -  | 10.00 | -  | 9.17  | BETL   |
| NH 22076 Bt          | 16.67                                                 | -  | 18.00 | -  | 17.34 | AETL   |
| LHBt 23105           | 30.00                                                 | -  | 34.00 | -  | 32.00 | AETL   |
| CPDBt-2551           | 16.67                                                 | -  | 12.00 | -  | 14.34 | AETL   |
| LHBt 23110           | 18.33                                                 | -  | 18.00 | -  | 18.17 | AETL   |
| WGCv Bt 128          | 13.33                                                 | -  | 26.00 | -  | 19.67 | AETL   |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |    |              | Remark |
|----------------------|----------------------|-------|-------|----|--------------|--------|
|                      | DH                   | PE    | AD    | MU | Mean         |        |
| LRA 5166 Bt          | 6.14                 | 8.00  | 15.00 | -  | <b>9.71</b>  |        |
| Anjali Bt            | 15.11                | 7.00  | 12.00 | -  | <b>11.37</b> |        |
| LHBt 2203            | 20.22                | 9.00  | 15.00 | -  | <b>14.74</b> |        |
| LHBt 23108           | 12.25                | 10.00 | 10.00 | -  | <b>10.75</b> |        |
| NH 22095 Bt          | 20.01                | 6.00  | 8.00  | -  | <b>11.34</b> |        |
| WGCV Bt 129          | 12.15                | 9.00  | 10.00 | -  | <b>10.38</b> |        |
| Sumangala Bt         | 11.42                | 9.00  | 15.00 | -  | <b>11.81</b> |        |
| NH 22107 Bt          | 10.31                | 8.00  | 10.00 | -  | <b>9.44</b>  |        |
| CPDBt-2552           | 11.83                | 10.00 | 10.00 | -  | <b>10.61</b> |        |
| CICR 23 Bt (ZC Bt-1) | 14.51                | 9.00  | 12.00 | -  | <b>11.84</b> |        |
| CCH 2623 Bt          | 13.23                | 8.00  | 15.00 | -  | <b>12.08</b> |        |
| PKV 081 Bt (ZC Bt-2) | 8.75                 | 9.00  | 10.00 | -  | <b>9.25</b>  |        |
| NH 22076 Bt          | 11.55                | 9.00  | 15.00 | -  | <b>11.85</b> |        |
| LHBt 23105           | 22.04                | 10.00 | 14.00 | -  | <b>15.35</b> |        |
| CPDBt-2551           | 15.56                | 9.00  | 10.00 | -  | <b>11.52</b> |        |
| LHBt 23110           | 12.05                | 7.00  | 10.00 | -  | <b>9.68</b>  |        |
| WGCV Bt 128          | 12.66                | 8.00  | 15.00 | -  | <b>11.89</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |       |    |              | Remark |
|----------------------|-------------------|------|-------|----|--------------|--------|
|                      | DH                | PE   | AD    | MU | Mean         |        |
| LRA 5166 Bt          | 9.83              | 4.00 | 18.50 | -  | <b>10.78</b> |        |
| Anjali Bt            | 15.67             | 3.00 | 11.50 | -  | <b>10.06</b> |        |
| LHBt 2203            | 22.33             | 4.00 | 20.50 | -  | <b>15.61</b> |        |
| LHBt 23108           | 25.08             | 5.00 | 12.00 | -  | <b>14.03</b> |        |
| NH 22095 Bt          | 15.17             | 2.00 | 17.50 | -  | <b>11.56</b> |        |
| WGCV Bt 129          | 15.67             | 3.00 | 14.50 | -  | <b>11.06</b> |        |
| Sumangala Bt         | 15.67             | 3.00 | 16.50 | -  | <b>11.72</b> |        |
| NH 22107 Bt          | 12.17             | 2.00 | 16.50 | -  | <b>10.22</b> |        |
| CPDBt-2552           | 14.08             | 4.00 | 18.50 | -  | <b>12.19</b> |        |
| CICR 23 Bt (ZC Bt-1) | 16.92             | 3.00 | 15.50 | -  | <b>11.81</b> |        |
| CCH 2623 Bt          | 15.17             | 2.00 | 14.50 | -  | <b>10.56</b> |        |
| PKV 081 Bt (ZC Bt-2) | 8.58              | 3.00 | 7.00  | -  | <b>6.19</b>  |        |
| NH 22076 Bt          | 17.42             | 4.00 | 12.50 | -  | <b>11.31</b> |        |
| LHBt 23105           | 23.92             | 5.00 | 28.00 | -  | <b>18.97</b> |        |
| CPDBt-2551           | 12.83             | 3.00 | 7.00  | -  | <b>7.61</b>  |        |
| LHBt 23110           | 14.25             | 2.00 | 14.00 | -  | <b>10.08</b> |        |
| WGCV Bt 128          | 16.17             | 2.00 | 15.50 | -  | <b>11.22</b> |        |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 16(b): Initial Evaluation Trial of Hirsutum Varieties – Rainfed (IET Variety RF) under Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions UAS Dharwad |    |      |    |      |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                      | ALB                                                                     |    | BLB  |    | GM   |    | Rust |    |
|        |         |                      | PDI                                                                     | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 11     | 56101   | LRA 5166 Bt          | 25.7                                                                    | MR | 11.4 | R  | 15.3 | R  | 19.0 | R  |
| 16     | 56102   | Anjali Bt            | 25.8                                                                    | MR | 12.3 | R  | 16.4 | R  | 20.9 | R  |
| 8      | 56103   | LHBt 2203            | 25.3                                                                    | MR | 10.9 | R  | 15.9 | R  | 19.5 | R  |
| 4      | 56104   | LHBt 23108           | 24.7                                                                    | R  | 12.1 | R  | 15.8 | R  | 20.2 | R  |
| 17     | 56105   | NH 22095 Bt          | 25.4                                                                    | MR | 13.1 | R  | 16.3 | R  | 17.7 | R  |
| 2      | 56106   | WGCV Bt 129          | 25.2                                                                    | MR | 10.0 | R  | 13.9 | R  | 21.3 | R  |
| 7      | 56107   | Sumangala Bt         | 26.3                                                                    | MR | 11.8 | R  | 14.9 | R  | 19.8 | R  |
| 1      | 56108   | NH 22107 Bt          | 26.8                                                                    | MR | 10.9 | R  | 15.9 | R  | 20.6 | R  |
| 6      | 56109   | CPDBt-2552           | 26.6                                                                    | MR | 10.4 | R  | 13.8 | R  | 20.4 | R  |
| 10     | 56110   | CICR 23 Bt (ZC Bt-1) | 25.8                                                                    | MR | 11.7 | R  | 15.6 | R  | 20.6 | R  |
| 15     | 56111   | CCH 2623 Bt          | 26.0                                                                    | MR | 12.1 | R  | 16.1 | R  | 19.0 | R  |
| 3      | 56112   | PKV 081 Bt (ZC Bt-2) | 25.4                                                                    | MR | 11.8 | R  | 14.9 | R  | 20.9 | R  |
| 9      | 56113   | NH 22076 Bt          | 25.2                                                                    | MR | 12.2 | R  | 13.3 | R  | 19.5 | R  |
| 5      | 56114   | LHBt 23105           | 24.9                                                                    | MR | 11.9 | R  | 14.0 | R  | 20.2 | R  |
| 13     | 56115   | CPDBt-2551           | 25.1                                                                    | MR | 9.1  | R  | 11.3 | R  | 17.7 | R  |
| 14     | 56116   | LHBt 23110           | 25.1                                                                    | MR | 12.8 | R  | 11.9 | R  | 17.0 | R  |
| 12     | 56117   | WGCV Bt 128          | 24.4                                                                    | R  | 11.8 | R  | 13.1 | R  | 18.3 | R  |





## Advanced Evaluation Trial of Hirsutum Varieties (I)- Rainfed

### *Constitution of Trial*

The trial was constituted with two Bt cotton varieties containing deregulated event along with three different check varieties as furnished below.

| S. No. | Code-I | Code -II | Entries            | Sponsored by |
|--------|--------|----------|--------------------|--------------|
| 1      | 3      | 56121    | Sahana (Non Bt ZC) |              |
| 2      | 5      | 56122    | CICR 23 Bt (Bt ZC) |              |
| 3      | 4      | 56123    | CPDBt 2451         | Dharwad      |
| 4      | 2      | 56124    | CPDBt 2452         | Dharwad      |
| 5      | 1      | 56125    | Local Check        |              |

The trial was conducted in five locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, and Perambalur.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Two separate trials viz., one with recommended spacing for the variety and another with half the spacing between plants have been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications

### Data recorded:

#### Biometric evaluation

#### Plant height (cm) at harvest in Advanced Evaluation Trial of Hirsutum Varieties (I)

| S. No. | Entries            | Mudhole | Adilabad | Dharwad | Perambalur | Mean  |
|--------|--------------------|---------|----------|---------|------------|-------|
| 1      | Sahana (Non Bt ZC) | 122.2   | 170.9    | 107.5   | 169.9      | 142.6 |
| 2      | CICR 23 Bt (Bt ZC) | 105.3   | 169.5    | 96.7    | 174.6      | 136.5 |
| 3      | CPDBt 2451         | 113.0   | 160.7    | 104.7   | 147.9      | 131.6 |
| 4      | CPDBt 2452         | 115.6   | 164.5    | 102.1   | 157.9      | 135.0 |
| 5      | Local Check        | 119.3   | 172.6    | 110.9   | 157.2      | 140.0 |
|        | CD @ 5%            | 10.8    | NS       | 10.4    | 16.9       |       |
|        | CV %               | 6.1     | 7.3      | 6.5     | 7.4        |       |



**Number of monopodia in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|---------------------------|---------|----------|---------|------------|------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 0.7     | 1.8      | 2.2     | 2.9        | <b>1.9</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 0.6     | 1.7      | 2.2     | 1.7        | <b>1.6</b> |
| 3      | CPDBt 2451                | 0.4     | 0.7      | 1.1     | 2.4        | <b>1.2</b> |
| 4      | CPDBt 2452                | 0.2     | 0.3      | 1.3     | 1.9        | <b>0.9</b> |
| 5      | <b>Local Check</b>        | 0.3     | 1.3      | 2.3     | 2.9        | <b>1.7</b> |
|        | CD @ 5%                   | 0.1     | 1.0      | 0.4     | 0.6        |            |
|        | CV %                      | 23.1    | 55.4     | 14.4    | 19.4       |            |

**Number of sympodia in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 13.2    | 17.0     | 15.5    | 25.2       | <b>17.7</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 10.8    | 17.1     | 15.8    | 24.9       | <b>17.2</b> |
| 3      | CPDBt 2451                | 12.4    | 16.5     | 16.6    | 23.7       | <b>17.3</b> |
| 4      | CPDBt 2452                | 13.6    | 15.6     | 14.9    | 24.3       | <b>17.1</b> |
| 5      | <b>Local Check</b>        | 11.8    | 17.5     | 16.3    | 23.8       | <b>17.4</b> |
|        | CD @ 5%                   | 1.8     | 2.3      | 1.8     | 3.3        |             |
|        | CV %                      | 9.8     | 9.0      | 7.5     | 9.5        |             |

**Boll weight (g) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|---------------------------|---------|----------|---------|------------|------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 3.8     | 4.2      | 4.4     | 4.1        | <b>4.1</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 3.1     | 3.1      | 3.7     | 3.5        | <b>3.4</b> |
| 3      | CPDBt 2451                | 3.4     | 3.4      | 4.3     | 3.9        | <b>3.8</b> |
| 4      | CPDBt 2452                | 3.7     | 3.7      | 4.2     | 4.2        | <b>4.0</b> |
| 5      | <b>Local Check</b>        | 4.0     | 4.0      | 4.3     | 3.7        | <b>4.0</b> |
|        | CD @ 5%                   | 0.2     | NS       | 0.1     | 0.5        |            |
|        | CV %                      | 4.7     | 13.6     | 2.1     | 8.7        |            |



**Number of bolls / plant in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 23.9    | 15.1     | 10.3    | 37.8       | <b>21.8</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 18.7    | 8.3      | 7.2     | 33.5       | <b>16.9</b> |
| 3      | CPDBt 2451                | 22.9    | 18.2     | 15.0    | 34.4       | <b>22.6</b> |
| 4      | CPDBt 2452                | 25.4    | 14.0     | 9.8     | 38.0       | <b>21.8</b> |
| 5      | <b>Local Check</b>        | 20.7    | 15.0     | 10.5    | 39.7       | <b>21.5</b> |
|        | CD @ 5%                   | 3.7     | 2.7      | 2.2     | 6.7        |             |
|        | CV %                      | 10.8    | 12.6     | 13.4    | 13.0       |             |

**Number of bolls / sq. m. in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 88.5    | 60.5     | 57.5    | 151.3      | <b>89.5</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 62.3    | 33.8     | 39.8    | 125.4      | <b>65.3</b> |
| 3      | CPDBt 2451                | 83.0    | 70.3     | 83.2    | 137.1      | <b>93.4</b> |
| 4      | CPDBt 2452                | 91.5    | 56.8     | 54.4    | 148.5      | <b>87.8</b> |
| 5      | <b>Local Check</b>        | 67.0    | 49.0     | 58.4    | 153.8      | <b>82.1</b> |
|        | CD @ 5%                   | 9.7     | 10.0     | 12.1    | 20.9       |             |
|        | CV %                      | 7.9     | 12.0     | 13.4    | 10.3       |             |

**Lint Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|---------------------------|---------|----------|---------|------------|------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 4.9     | 4.7      | 6.2     | 5.7        | <b>5.4</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 4.4     | 3.2      | 4.3     | 4.3        | <b>4.1</b> |
| 3      | CPDBt 2451                | 5.1     | 4.4      | 6.1     | 5.4        | <b>5.3</b> |
| 4      | CPDBt 2452                | 4.3     | 4.2      | 5.7     | 5.8        | <b>5.0</b> |
| 5      | <b>Local Check</b>        | 4.5     | 4.2      | 6.5     | 5.0        | <b>5.1</b> |
|        | CD @ 5%                   | 0.2     | 0.7      |         | 0.5        |            |
|        | CV %                      | 2.9     | 10.6     |         | 7.2        |            |



**Seed Index (g) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|---------------------------|---------|----------|---------|------------|------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 8.7     | 8.9      | 9.3     | 9.1        | <b>9.0</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 7.6     | 8.5      | 8.0     | 8.4        | <b>8.1</b> |
| 3      | CPDBt 2451                | 7.5     | 7.1      | 8.1     | 8.8        | <b>7.9</b> |
| 4      | CPDBt 2452                | 6.8     | 7.9      | 7.8     | 8.9        | <b>7.9</b> |
| 5      | <b>Local Check</b>        | 9.6     | 7.9      | 9.8     | 8.5        | <b>9.0</b> |
|        | CD @ 5%                   | 0.5     | NS       |         | 0.8        |            |
|        | CV %                      | 4.4     | 11.2     |         | 6.4        |            |

**Ginning outturn (%) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 35.9    | 34.7     | 39.9    | 38.8       | <b>37.3</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 36.6    | 27.6     | 35.0    | 34.8       | <b>33.5</b> |
| 3      | CPDBt 2451                | 40.1    | 38.2     | 43.0    | 38.4       | <b>39.9</b> |
| 4      | CPDBt 2452                | 38.9    | 34.9     | 42.3    | 38.8       | <b>38.7</b> |
| 5      | <b>Local Check</b>        | 31.9    | 34.8     | 40.0    | 37.4       | <b>36.0</b> |
|        | CD @ 5%                   | 2.4     | 3.2      |         | 2.6        |             |
|        | CV %                      | 4.2     | 6.0      |         | 4.8        |             |

**Upper Half Mean Length (mm) under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 27.9    | 27.0     | 27.3    | 27.4       | <b>27.4</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 27.4    | 26.3     | 29.1    | 26.8       | <b>27.4</b> |
| 3      | CPDBt 2451                | 25.0    | 24.8     | 27.8    | 25.2       | <b>25.7</b> |
| 4      | CPDBt 2452                | 25.5    | 26.3     | 27.4    | 26.4       | <b>26.4</b> |
| 5      | <b>Local Check</b>        | 27.7    | 27.4     | 28.1    | 26.3       | <b>27.4</b> |



**Uniformity index under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 82.0    | 83.0     | 84.0    | 83.0       | <b>83.0</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 83.0    | 82.0     | 84.0    | 81.0       | <b>82.5</b> |
| 3      | CPDBt 2451                | 82.0    | 81.0     | 84.0    | 81.0       | <b>82.0</b> |
| 4      | CPDBt 2452                | 82.0    | 80.0     | 83.0    | 81.0       | <b>81.5</b> |
| 5      | <b>Local Check</b>        | 83.0    | 82.0     | 84.0    | 82.0       | <b>82.8</b> |

**Micronaire under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|---------------------------|---------|----------|---------|------------|------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 4.3     | 3.9      | 4.4     | 4.3        | <b>4.2</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 3.7     | 3.7      | 4.1     | 4.3        | <b>4.0</b> |
| 3      | CPDBt 2451                | 4.5     | 4.2      | 4.4     | 4.7        | <b>4.5</b> |
| 4      | CPDBt 2452                | 4.4     | 4.3      | 4.4     | 5.4        | <b>4.6</b> |
| 5      | <b>Local Check</b>        | 4.1     | 4.4      | 4.2     | 5.0        | <b>4.4</b> |

**Tenacity under HVI Mode in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 28.9    | 29.2     | 27.6    | 28.4       | <b>28.5</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 30.0    | 27.8     | 30.9    | 27.7       | <b>29.1</b> |
| 3      | CPDBt 2451                | 26.7    | 26.0     | 26.4    | 26.2       | <b>26.3</b> |
| 4      | CPDBt 2452                | 27.3    | 27.9     | 28.8    | 28.0       | <b>28.0</b> |
| 5      | <b>Local Check</b>        | 29.7    | 29.7     | 29.0    | 28.4       | <b>29.2</b> |

**Seed Cotton Yield at 140 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean         |
|--------|---------------------------|---------|----------|---------|------------|--------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 16.09   | 18.70    | 13.99   | 9.88       | <b>14.67</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 10.30   | 5.66     | 3.13    | 9.43       | <b>7.13</b>  |
| 3      | CPDBt 2451                | 14.67   | 21.67    | 18.37   | 10.97      | <b>16.42</b> |
| 4      | CPDBt 2452                | 15.77   | 15.07    | 16.46   | 9.02       | <b>14.08</b> |
| 5      | <b>Local Check</b>        | 12.44   | 12.55    | 14.35   | 10.70      | <b>12.51</b> |
|        | CD @ 5%                   | 2.10    | 2.30     | 3.10    | 2.10       |              |
|        | CV %                      | 10.00   | 10.16    | 15.17   | 14.87      |              |



**Seed Cotton Yield at 165 DAS (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (I)**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|---------------------------|---------|----------|---------|------------|-------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 3.56    | 5.23     | 6.35    | 4.33       | <b>4.87</b> |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 4.60    | 2.88     | 6.88    | 5.28       | <b>4.91</b> |
| 3      | CPDBt 2451                | 3.11    | 4.38     | 3.65    | 5.56       | <b>4.18</b> |
| 4      | CPDBt 2452                | 4.13    | 3.18     | 4.87    | 4.64       | <b>4.21</b> |
| 5      | <b>Local Check</b>        | 2.80    | 4.93     | 5.84    | 5.13       | <b>4.68</b> |
|        | CD @ 5%                   | 1.10    | 0.93     | 1.37    | 0.90       |             |
|        | CV %                      | 20.00   | 14.65    | 16.10   | 12.86      |             |

**Total Seed Cotton Yield (q/ha) in Advanced Evaluation Trial of Hirsutum Varieties (I) under**

| S. No. | Entries                   | Mudhole | Adilabad | Dharwad | Perambalur | Mean         | Rank | % Inc over best check |
|--------|---------------------------|---------|----------|---------|------------|--------------|------|-----------------------|
| 1      | <b>Sahana (Non Bt ZC)</b> | 19.65   | 23.92    | 20.35   | 14.21      | <b>19.53</b> | 2    | 0.0                   |
| 2      | <b>CICR 23 Bt (Bt ZC)</b> | 14.90   | 8.54     | 10.01   | 14.71      | <b>12.04</b> | 5    | -38.4                 |
| 3      | CPDBt 2451                | 17.78   | 26.04    | 22.02   | 16.53      | <b>20.59</b> | 1    | 5.4                   |
| 4      | CPDBt 2452                | 19.90   | 18.25    | 21.33   | 13.66      | <b>18.29</b> | 3    | -6.4                  |
| 5      | <b>Local Check</b>        | 15.23   | 17.48    | 20.19   | 15.83      | <b>17.18</b> | 4    | -12.0                 |
|        | CD @ 5%                   | 2.40    | 2.67     | 3.45    | 2.35       |              |      |                       |
|        | CV %                      | 9.40    | 9.20     | 11.90   | 11.12      |              |      |                       |



## Evaluation under Protected Condition for Insect pests

### Reaction to Insect Pests

**Table: Advanced Variety trial in South Zone under Protected Conditions – Aphid**

| Name of Entry      | Aphid (Average of 3 leaves/plant) |      |    |      |      |             | Remark |
|--------------------|-----------------------------------|------|----|------|------|-------------|--------|
|                    | NA                                | DH   | PE | AD   | MU   | Mean        |        |
| Sahana (Non Bt ZC) | -                                 | 1.03 | -  | 0.71 | 1.43 | <b>1.06</b> | BETL   |
| CICR 23 Bt (Bt ZC) | -                                 | 1.42 | -  | 0.78 | 5.65 | <b>2.62</b> | BETL   |
| CPDBt 2451         | -                                 | 1.29 | -  | 0.87 | 5.17 | <b>2.44</b> | BETL   |
| CPDBt 2452         | -                                 | 0.50 | -  | 0.73 | 2.11 | <b>1.11</b> | BETL   |
| Local Check        | -                                 | 1.07 | -  | 0.67 | 6.46 | <b>2.74</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Leafhopper**

| Name of Entry      | Leafhopper (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|--------------------|----------------------------------------|------|------|------|------|-------------|--------|
|                    | NA                                     | DH   | PE   | AD   | MU   | Mean        |        |
| Sahana (Non Bt ZC) | -                                      | 1.44 | 5.67 | 0.14 | 2.14 | <b>2.48</b> | BETL   |
| CICR 23 Bt (Bt ZC) | -                                      | 2.13 | 4.33 | 0.26 | 1.42 | <b>2.30</b> | BETL   |
| CPDBt 2451         | -                                      | 2.19 | 5.33 | 0.34 | 2.65 | <b>2.83</b> | BETL   |
| CPDBt 2452         | -                                      | 2.46 | 5.33 | 0.29 | 2.85 | <b>2.72</b> | BETL   |
| Local Check        | -                                      | 2.97 | 3.67 | 0.25 | 1.33 | <b>2.24</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – JIG**

| Name of Entry      | JIG/plant |    |    |    |    |      | Remark |
|--------------------|-----------|----|----|----|----|------|--------|
|                    | NA        | DH | PE | AD | MU | Mean |        |
| Sahana (Non Bt ZC) | -         | I  | -  | -  | -  | I    |        |
| CICR 23 Bt (Bt ZC) | -         | I  | -  | -  | -  | I    |        |
| CPDBt 2451         | -         | I  | -  | -  | -  | I    |        |
| CPDBt 2452         | -         | I  | -  | -  | -  | I    |        |
| Local Check        | -         | I  | -  | -  | -  | I    |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Thrips**

| Name of Entry      | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|--------------------|------------------------------------|------|------|------|------|-------------|--------|
|                    | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| Sahana (Non Bt ZC) | -                                  | 0.96 | 0.00 | 0.97 | 1.13 | <b>0.76</b> | BETL   |
| CICR 23 Bt (Bt ZC) | -                                  | 1.25 | 1.67 | 1.13 | 1.38 | <b>1.36</b> | BETL   |
| CPDBt 2451         | -                                  | 1.41 | 0.67 | 1.20 | 1.86 | <b>1.28</b> | BETL   |
| CPDBt 2452         | -                                  | 1.23 | 0.00 | 0.93 | 0.94 | <b>0.78</b> | BETL   |
| Local Check        | -                                  | 2.16 | 0.00 | 1.27 | 1.50 | <b>1.23</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Advanced Variety trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry      | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark |
|--------------------|--------------------------------------|------|------|------|------|-------------|--------|
|                    | NA                                   | DH   | PE   | AD   | MU   | Mean        |        |
| Sahana (Non Bt ZC) | -                                    | 0.69 | 0.67 | 0.30 | 0.89 | <b>0.64</b> | BETL   |
| CICR 23 Bt (Bt ZC) | -                                    | 0.40 | 0.67 | 0.23 | 1.05 | <b>0.59</b> | BETL   |
| CPDBt 2451         | -                                    | 0.29 | 0.67 | 0.40 | 0.63 | <b>0.50</b> | BETL   |
| CPDBt 2452         | -                                    | 0.51 | 0.00 | 0.27 | 0.37 | <b>0.29</b> | BETL   |
| Local Check        | -                                    | 0.05 | 0.33 | 0.37 | 1.30 | <b>0.51</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry      | Natural Enemies (No./ plant) |      |      |    |    |             | Remark |
|--------------------|------------------------------|------|------|----|----|-------------|--------|
|                    | NA                           | DH   | PE   | AD | MU | Mean        |        |
| Sahana (Non Bt ZC) | -                            | 0.69 | 0.00 | -  | -  | <b>0.35</b> |        |
| CICR 23 Bt (Bt ZC) | -                            | 0.31 | 0.00 | -  | -  | <b>0.16</b> |        |
| CPDBt 2451         | -                            | 0.52 | 0.00 | -  | -  | <b>0.26</b> |        |
| CPDBt 2452         | -                            | 0.45 | 0.00 | -  | -  | <b>0.22</b> |        |
| Local Check        | -                            | 0.55 | 0.00 | -  | -  | <b>0.27</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – *Helicoverpa armigera***

| Name of Entry      | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |    |             | Remark |
|--------------------|---------------------------------------------|------|------|------|----|-------------|--------|
|                    | NA                                          | DH   | PE   | AD   | MU | Mean        |        |
| Sahana (Non Bt ZC) | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CICR 23 Bt (Bt ZC) | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CPDBt 2451         | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CPDBt 2452         | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Local Check        | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Spotted/ Spiny Bollworms**

| Name of Entry      | Spotted Bollworms (No. /5 plants) |      |      |      |    |             | Remark |
|--------------------|-----------------------------------|------|------|------|----|-------------|--------|
|                    | NA                                | DH   | PE   | AD   | MU | Mean        |        |
| Sahana (Non Bt ZC) | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CICR 23 Bt (Bt ZC) | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CPDBt 2451         | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| CPDBt 2452         | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |
| Local Check        | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





**Table: Advanced Variety trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry      | <i>Spodoptera litura</i> (No./5 plants) |      |      |      |    |      | Remark |
|--------------------|-----------------------------------------|------|------|------|----|------|--------|
|                    | NA                                      | DH   | PE   | AD   | MU | Mean |        |
| Sahana (Non Bt ZC) | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (Bt ZC) | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2451         | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2452         | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Local Check        | -                                       | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry      | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |      | Remark |
|--------------------|---------------------------------------------------------|------|------|------|----|------|--------|
|                    | NA                                                      | DH   | PE   | AD#  | MU | Mean |        |
| Sahana (Non Bt ZC) | -                                                       | 1.42 | 1.80 | 0.80 | -  | 1.34 | AETL   |
| CICR 23 Bt (Bt ZC) | -                                                       | 1.17 | 1.73 | 0.67 | -  | 1.19 | AETL   |
| CPDBt 2451         | -                                                       | 1.33 | 1.66 | 0.00 | -  | 1.00 | AETL   |
| CPDBt 2452         | -                                                       | 1.17 | 1.33 | 0.40 | -  | 0.97 | BETL   |
| Local Check        | -                                                       | 0.75 | 1.50 | 0.40 | -  | 0.88 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole, # Based on 5 Observations

**Table: Advanced Variety trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry      | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |      | Remark |
|--------------------|-----------------------------------------|------|----|------|----|------|--------|
|                    | NA                                      | DH   | PE | AD   | MU | Mean |        |
| Sahana (Non Bt ZC) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (Bt ZC) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2451         | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2452         | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Local Check        | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry      | Green Boll Damage (%) /10 bolls destructive sampling |      |    |       |    |       | Remark |
|--------------------|------------------------------------------------------|------|----|-------|----|-------|--------|
|                    | NA                                                   | DH   | PE | AD    | MU | Mean  |        |
| Sahana (Non Bt ZC) | -                                                    | 7.50 | -  | 20.00 | -  | 13.75 | AETL   |
| CICR 23 Bt (Bt ZC) | -                                                    | 8.33 | -  | 26.00 | -  | 17.17 | AETL   |
| CPDBt 2451         | -                                                    | 8.33 | -  | 25.33 | -  | 16.83 | AETL   |
| CPDBt 2452         | -                                                    | 9.17 | -  | 24.67 | -  | 16.92 | AETL   |
| Local Check        | -                                                    | 5.00 | -  | 21.33 | -  | 13.17 | AETL   |

NA- Nandyal, DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced Variety trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry      | Open Boll Damage (%) |       |       |       |    |              | Remark |
|--------------------|----------------------|-------|-------|-------|----|--------------|--------|
|                    | NA                   | DH    | PE    | AD    | MU | Mean         |        |
| Sahana (Non Bt ZC) | -                    | 4.92  | 13.00 | 15.00 | -  | <b>10.97</b> |        |
| CICR 23 Bt (Bt ZC) | -                    | 8.97  | 11.00 | 20.00 | -  | <b>13.32</b> |        |
| CPDBt 2451         | -                    | 10.20 | 7.00  | 16.33 | -  | <b>11.18</b> |        |
| CPDBt 2452         | -                    | 11.05 | 6.00  | 16.67 | -  | <b>11.24</b> |        |
| Local Check        | -                    | 7.00  | 10.00 | 11.67 | -  | <b>9.56</b>  |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry      | Locule Damage (%) |       |      |      |    |             | Remark |
|--------------------|-------------------|-------|------|------|----|-------------|--------|
|                    | NA                | DH    | PE   | AD   | MU | Mean        |        |
| Sahana (Non Bt ZC) | -                 | 7.42  | 2.00 | 5.17 | -  | <b>4.86</b> |        |
| CICR 23 Bt (Bt ZC) | -                 | 12.25 | 3.00 | 8.67 | -  | <b>7.97</b> |        |
| CPDBt 2451         | -                 | 10.08 | 3.00 | 9.17 | -  | <b>7.42</b> |        |
| CPDBt 2452         | -                 | 8.79  | 2.00 | 7.67 | -  | <b>6.15</b> |        |
| Local Check        | -                 | 6.58  | 4.00 | 4.83 | -  | <b>5.14</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry      | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|--------------------|------------------------------------|------|------|------|------|-------------|--------|
|                    | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| Sahana (Non Bt ZC) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CICR 23 Bt (Bt ZC) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CPDBt 2451         | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CPDBt 2452         | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Local Check        | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 17 (a): Advanced Evaluation Trial of Hirsutum Varieties – I – Rainfed (AET-I Variety RF) under Protected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Protected conditions UAS Dharwad |    |     |    |      |    |      |    |
|--------|---------|-----------------------------|-----------------------------------------------------------------------|----|-----|----|------|----|------|----|
|        |         |                             | ALB                                                                   |    | BLB |    | GM   |    | Rust |    |
|        |         |                             | PDI                                                                   | DR | PDI | DR | PDI  | DR | PDI  | DR |
| 3      | 56121   | Sahana (Non Bt Zonal Check) | 20.1                                                                  | R  | 9.7 | R  | 14.3 | R  | 19.3 | R  |
| 5      | 56122   | CICR 23 Bt (Bt Zonal Check) | 19.1                                                                  | R  | 9.5 | R  | 14.1 | R  | 19.2 | R  |
| 4      | 56123   | CPDBt 2451                  | 18.4                                                                  | R  | 9.8 | R  | 13.0 | R  | 18.0 | R  |
| 2      | 56124   | CPDBt 2452                  | 18.5                                                                  | R  | 9.5 | R  | 13.7 | R  | 18.2 | R  |
| 1      | 56125   | Local Check                 | 19.1                                                                  | R  | 9.9 | R  | 12.9 | R  | 17.9 | R  |



## Evaluation under Unprotected Condition for Insect pests

### Reaction to Insect Pests

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Aphid**

| Name of Entry      | Aphid (Average of 3 leaves/plant) |      |      |       |             | Remark |
|--------------------|-----------------------------------|------|------|-------|-------------|--------|
|                    | DH                                | PE   | AD   | MU    | Mean        |        |
| Sahana (Non Bt ZC) | 8.33                              | 1.33 | 0.73 | 2.34  | <b>3.18</b> | BETL   |
| CICR 23 Bt (Bt ZC) | 8.88                              | 1.67 | 0.73 | 5.39  | <b>4.17</b> | BETL   |
| CPDBt 2451         | 11.04                             | 1.00 | 0.69 | 8.49  | <b>5.31</b> | BETL   |
| CPDBt 2452         | 8.82                              | 1.67 | 0.40 | 3.46  | <b>3.59</b> | BETL   |
| Local Check        | 10.40                             | 1.00 | 0.74 | 10.61 | <b>5.69</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Leafhopper**

| Name of Entry      | Leafhopper (Average of 3 leaves/plant) |      |      |      |             | Remark |
|--------------------|----------------------------------------|------|------|------|-------------|--------|
|                    | DH                                     | PE   | AD   | MU   | Mean        |        |
| Sahana (Non Bt ZC) | 2.62                                   | 4.67 | 0.42 | 3.54 | <b>2.81</b> | BETL   |
| CICR 23 Bt (Bt ZC) | 2.53                                   | 3.33 | 0.44 | 2.36 | <b>2.17</b> | BETL   |
| CPDBt 2451         | 3.79                                   | 5.67 | 0.53 | 4.39 | <b>3.59</b> | BETL   |
| CPDBt 2452         | 2.72                                   | 5.67 | 0.54 | 4.73 | <b>3.41</b> | BETL   |
| Local Check        | 3.88                                   | 3.67 | 0.20 | 2.20 | <b>2.49</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry      | JIG/plant |    |    |    |      | Remark |
|--------------------|-----------|----|----|----|------|--------|
|                    | DH        | PE | AD | MU | Mean |        |
| Sahana (Non Bt ZC) | I         | -  | -  | -  | I    |        |
| CICR 23 Bt (Bt ZC) | I         | -  | -  | -  | I    |        |
| CPDBt 2451         | II        | -  | -  | -  | I    |        |
| CPDBt 2452         | I         | -  | -  | -  | I    |        |
| Local Check        | II        | -  | -  | -  | I    |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry      | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark |
|--------------------|------------------------------------|------|------|------|-------------|--------|
|                    | DH                                 | PE   | AD   | MU   | Mean        |        |
| Sahana (Non Bt ZC) | 14.44                              | 2.67 | 1.53 | 1.36 | <b>5.00</b> | BETL   |
| CICR 23 Bt (Bt ZC) | 13.23                              | 2.00 | 2.24 | 1.67 | <b>4.78</b> | BETL   |
| CPDBt 2451         | 15.43                              | 1.67 | 2.04 | 2.25 | <b>5.35</b> | BETL   |
| CPDBt 2452         | 20.03                              | 1.67 | 1.80 | 3.02 | <b>6.63</b> | BETL   |
| Local Check        | 20.49                              | 1.33 | 2.20 | 1.82 | <b>6.46</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: -Advanced Variety trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry      | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|--------------------|--------------------------------------|------|------|------|-------------|-------------|
|                    | DH                                   | PE   | AD   | MU   | Mean        |             |
| Sahana (Non Bt ZC) | 1.08                                 | 0.67 | 0.38 | 1.27 | <b>0.85</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC) | 0.85                                 | 0.33 | 0.18 | 1.48 | <b>0.71</b> | <b>BETL</b> |
| CPDBt 2451         | 1.43                                 | 1.00 | 0.33 | 0.90 | <b>0.92</b> | <b>BETL</b> |
| CPDBt 2452         | 0.83                                 | 1.00 | 0.22 | 0.53 | <b>0.65</b> | <b>BETL</b> |
| Local Check        | 1.47                                 | 1.33 | 0.67 | 1.85 | <b>1.33</b> | <b>BETL</b> |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry      | Natural Enemies (No. / plant) |      |      |    |             | Remark |
|--------------------|-------------------------------|------|------|----|-------------|--------|
|                    | DH                            | PE   | AD   | MU | Mean        |        |
| Sahana (Non Bt ZC) | 0.82                          | 0.00 | 0.38 | -  | <b>0.40</b> |        |
| CICR 23 Bt (Bt ZC) | 0.55                          | 0.00 | 0.31 | -  | <b>0.29</b> |        |
| CPDBt 2451         | 0.83                          | 0.00 | 0.33 | -  | <b>0.39</b> |        |
| CPDBt 2452         | 0.75                          | 0.00 | 0.22 | -  | <b>0.32</b> |        |
| Local Check        | 0.90                          | 0.00 | 0.82 | -  | <b>0.57</b> |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry      | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |    |             | Remark      |
|--------------------|---------------------------------------------|------|------|----|-------------|-------------|
|                    | DH                                          | PE   | AD   | MU | Mean        |             |
| Sahana (Non Bt ZC) | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC) | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CPDBt 2451         | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CPDBt 2452         | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Local Check        | 0.00                                        | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Spotted/ Spiny Bollworms**

| Name of Entry      | Spotted Bollworms (No. /5 plants) |      |      |    |             | Remark      |
|--------------------|-----------------------------------|------|------|----|-------------|-------------|
|                    | DH                                | PE   | AD   | MU | Mean        |             |
| Sahana (Non Bt ZC) | 0.00                              | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 23 Bt (Bt ZC) | 0.00                              | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CPDBt 2451         | 0.00                              | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CPDBt 2452         | 0.00                              | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Local Check        | 0.00                              | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced Variety trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry      | <i>Spodoptera litura</i> (No. /5 plants) |      |      |    |      | Remark |
|--------------------|------------------------------------------|------|------|----|------|--------|
|                    | DH                                       | PE   | AD   | MU | Mean |        |
| Sahana (Non Bt ZC) | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (Bt ZC) | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2451         | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2452         | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Local Check        | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry      | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |    |      | Remark |
|--------------------|---------------------------------------------------------|------|------|----|------|--------|
|                    | DH                                                      | PE   | AD#  | MU | Mean |        |
| Sahana (Non Bt ZC) | 2.50                                                    | 1.81 | 0.40 | -  | 1.57 | AETL   |
| CICR 23 Bt (Bt ZC) | 2.17                                                    | 1.48 | 0.20 | -  | 1.28 | AETL   |
| CPDBt 2451         | 2.33                                                    | 1.65 | 2.20 | -  | 2.06 | AETL   |
| CPDBt 2452         | 2.00                                                    | 1.95 | 1.20 | -  | 1.72 | AETL   |
| Local Check        | 2.33                                                    | 1.88 | 0.40 | -  | 1.54 | AETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole, # Based on 5 Observations

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry      | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |      | Remark |
|--------------------|-----------------------------------------|----|------|----|------|--------|
|                    | DH                                      | PE | AD   | MU | Mean |        |
| Sahana (Non Bt ZC) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (Bt ZC) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2451         | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt 2452         | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Local Check        | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry      | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |       | Remark |
|--------------------|-------------------------------------------------------|----|-------|----|-------|--------|
|                    | DH                                                    | PE | AD    | MU | Mean  |        |
| Sahana (Non Bt ZC) | 13.33                                                 | -  | 22.00 | -  | 17.67 | AETL   |
| CICR 23 Bt (Bt ZC) | 20.83                                                 | -  | 20.00 | -  | 20.42 | AETL   |
| CPDBt 2451         | 17.50                                                 | -  | 20.00 | -  | 18.75 | AETL   |
| CPDBt 2452         | 20.83                                                 | -  | 18.00 | -  | 19.42 | AETL   |
| Local Check        | 18.33                                                 | -  | 12.00 | -  | 15.17 | AETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry      | Open Boll Damage (%) |       |       |    |              | Remark |
|--------------------|----------------------|-------|-------|----|--------------|--------|
|                    | DH                   | PE    | AD    | MU | Mean         |        |
| Sahana (Non Bt ZC) | 12.65                | 7.00  | 15.00 | -  | <b>11.55</b> |        |
| CICR 23 Bt (Bt ZC) | 14.64                | 9.00  | 15.00 | -  | <b>12.88</b> |        |
| CPDBt 2451         | 16.29                | 10.00 | 10.00 | -  | <b>12.10</b> |        |
| CPDBt 2452         | 13.43                | 8.00  | 12.00 | -  | <b>11.14</b> |        |
| Local Check        | 10.25                | 14.00 | 9.00  | -  | <b>11.08</b> |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Advanced Variety trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry      | Locule Damage (%) |      |       |    |              | Remark |
|--------------------|-------------------|------|-------|----|--------------|--------|
|                    | DH                | PE   | AD    | MU | Mean         |        |
| Sahana (Non Bt ZC) | 12.25             | 3.00 | 16.50 | -  | <b>10.58</b> |        |
| CICR 23 Bt (Bt ZC) | 23.79             | 2.00 | 15.50 | -  | <b>13.76</b> |        |
| CPDBt 2451         | 18.62             | 4.00 | 14.50 | -  | <b>12.37</b> |        |
| CPDBt 2452         | 16.50             | 3.00 | 14.00 | -  | <b>11.17</b> |        |
| Local Check        | 11.75             | 5.00 | 8.50  | -  | <b>8.42</b>  |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 17(b): Advanced Evaluation Trial of Hirsutum Varieties – I – Rainfed (AET-I Variety RF) under Unprotected conditions**

| Code-I | Code-II | Entries                     | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |
|--------|---------|-----------------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                             | UAS Dharwad                                                 |    |      |    |      |    |      |    |
|        |         |                             | ALB                                                         |    | BLB  |    | GM   |    | Rust |    |
|        |         |                             | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 3      | 56121   | Sahana (Non Bt Zonal Check) | 24.3                                                        | R  | 10.9 | R  | 16.9 | R  | 16.2 | R  |
| 5      | 56122   | CICR 23 Bt (Bt Zonal Check) | 24.0                                                        | R  | 8.8  | R  | 15.9 | R  | 15.8 | R  |
| 4      | 56123   | CPDBt 2451                  | 23.3                                                        | R  | 9.5  | R  | 15.9 | R  | 17.4 | R  |
| 2      | 56124   | CPDBt 2452                  | 22.8                                                        | R  | 8.1  | R  | 15.5 | R  | 16.2 | R  |
| 1      | 56125   | Local Check                 | 22.4                                                        | R  | 9.3  | R  | 14.8 | R  | 15.7 | R  |





## Initial Evaluation Trial of Compact Hirsutum Varieties - Rainfed

### *Constitution of Trial*

The trial was constituted with 16 Bt cotton varieties containing deregulated event along with three different check varieties as furnished below.

| S. No. | Code-I   | Code -II     | Entries                     | Sponsored by         |
|--------|----------|--------------|-----------------------------|----------------------|
| 1      | 7        | 56131        | CPDBt(HD)-2555              | UAS Dharwad          |
| 2      | 14       | 56132        | CPDBt(HD)-2554              | UAS Dharwad          |
| 3      | 17       | 56133        | CCH 25-1 Bt II              | CICR, Coimbatore     |
| 4      | 1        | 56134        | Suraksha Bt                 | CICR, Coimbatore     |
| 5      | 5        | 56135        | CCH 25-3 Bt II              | CICR, Coimbatore     |
| 6      | 10       | 56136        | Subiksha Bt                 | CICR, Coimbatore     |
| 7      | 13       | 56137        | Nano Bt                     | CICR, Coimbatore     |
| 8      | 18       | 56138        | CICR Bt 25-24 Bt II         | ICAR-CICR, Nagpur    |
| 9      | 12       | 56139        | CICR Bt 142                 | ICAR-CICR, Nagpur    |
| 10     | 9        | 56140        | NH 22012 Bt                 | CRS, Nanded          |
| 11     | 6        | 56141        | NH 22003 Bt                 | CRS, Nanded          |
| 12     | 4        | 56142        | CICR 25-22 Bt II            | ICAR-CICR, Nagpur    |
| 13     | 2        | 56143        | ADB-791Bt                   | ARS, Adilabad, PJTAU |
| 14     | <b>8</b> | <b>56144</b> | <b>CICR 23 Bt (ZC Bt-1)</b> |                      |
| 15     | 11       | 56145        | CCH 25-4 Bt II              | CICR, Coimbatore     |
| 16     | 15       | 56146        | CICR 25-21 Bt II            | ICAR CICR, Nagpur    |
| 17     | <b>3</b> | <b>56147</b> | <b>PKV 081 Bt (ZC Bt-2)</b> |                      |
| 18     | 16       | 56148        | CCH 25-2 Bt II              | CICR, Coimbatore     |

The trial was conducted in five locations viz., Mudhole, Adilabad, Nandyal\*, Dharwad, and Perambalur.

\*As per the recommendation of Monitoring Committee, the trial was vitiated and the data was not included in the report

**Spacing:** Closer spacing of 90 cm x 15 cm has been followed.

**Number of rows:** 4 rows of 6 meters per entry with three replications



**Data recorded:****Biometric evaluation****Plant height (cm) at harvest in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean         |
|--------|-----------------------------|---------|----------|---------|------------|--------------|
| 1      | CPDBt(HD)-2555              | 103.5   | 117.7    | 95.2    | 67.5       | <b>96.0</b>  |
| 2      | CPDBt(HD)-2554              | 112.4   | 138.1    | 110.0   | 91.3       | <b>113.0</b> |
| 3      | CCH 25-1 Bt II              | 100.2   | 123.7    | 95.0    | 90.8       | <b>102.4</b> |
| 4      | Suraksha Bt                 | 109.7   | 132.7    | 101.0   | 84.0       | <b>106.9</b> |
| 5      | CCH 25-3 Bt II              | 114.8   | 133.2    | 97.2    | 91.9       | <b>109.3</b> |
| 6      | Subiksha Bt                 | 124.7   | 129.8    | 98.6    | 110.0      | <b>115.8</b> |
| 7      | Nano Bt                     | 112.7   | 120.7    | 106.4   | 97.1       | <b>109.2</b> |
| 8      | CICR Bt 25-24 Bt II         | 115.5   | 113.1    | 86.0    | 88.0       | <b>100.7</b> |
| 9      | CICR Bt 142                 | 108.4   | 113.9    | 89.2    | 79.6       | <b>97.8</b>  |
| 10     | NH 22012 Bt                 | 116.8   | 104.9    | 99.4    | 98.3       | <b>104.9</b> |
| 11     | NH 22003 Bt                 | 116.5   | 101.1    | 110.2   | 86.0       | <b>103.5</b> |
| 12     | CICR 25-22 Bt II            | 109.5   | 94.5     | 95.7    | 83.8       | <b>95.9</b>  |
| 13     | ADB-791Bt                   | 105.3   | 101.5    | 85.1    | 81.8       | <b>93.4</b>  |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 107.3   | 124.2    | 96.4    | 86.4       | <b>103.6</b> |
| 15     | CCH 25-4 Bt II              | 113.7   | 119.0    | 86.2    | 76.3       | <b>98.8</b>  |
| 16     | CICR 25-21 Bt II            | 116.2   | 115.7    | 92.2    | 84.9       | <b>102.3</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 132.0   | 126.6    | 93.2    | 88.4       | <b>110.1</b> |
| 18     | CCH 25-2 Bt II              | 106.1   | 133.1    | 96.3    | 93.3       | <b>107.2</b> |
|        | CD @ 5%                     | 13.8    | 25.4     | 15.3    | 17.4       |              |
|        | CV %                        | 7.4     | 12.9     | 9.6     | 12.4       |              |



**Number of monopodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | CPDBt(HD)-2555              | 0.5     | 1.5      | 1.2     | 1.0        | <b>1.1</b> |
| 2      | CPDBt(HD)-2554              | 0.2     | 0.8      | 0.9     | 1.2        | <b>0.8</b> |
| 3      | CCH 25-1 Bt II              | 0.3     | 0.3      | 0.9     | 0.3        | <b>0.5</b> |
| 4      | Suraksha Bt                 | 0.7     | 1.5      | 2.2     | 1.0        | <b>1.4</b> |
| 5      | CCH 25-3 Bt II              | 0.3     | 1.5      | 2.3     | 0.4        | <b>1.1</b> |
| 6      | Subiksha Bt                 | 0.6     | 1.3      | 1.4     | 0.8        | <b>1.0</b> |
| 7      | Nano Bt                     | 0.4     | 0.9      | 2.7     | 1.2        | <b>1.3</b> |
| 8      | CICR Bt 25-24 Bt II         | 0.2     | 0.3      | 1.1     | 0.8        | <b>0.6</b> |
| 9      | CICR Bt 142                 | 0.3     | 1.0      | 1.2     | 0.7        | <b>0.8</b> |
| 10     | NH 22012 Bt                 | 0.2     | 1.0      | 1.3     | 1.6        | <b>1.0</b> |
| 11     | NH 22003 Bt                 | 0.3     | 0.1      | 0.7     | 0.7        | <b>0.5</b> |
| 12     | CICR 25-22 Bt II            | 0.3     | 1.3      | 0.9     | 1.2        | <b>0.9</b> |
| 13     | ADB-791Bt                   | 0.5     | 0.9      | 1.2     | 0.7        | <b>0.8</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 0.5     | 1.1      | 2.0     | 0.4        | <b>1.0</b> |
| 15     | CCH 25-4 Bt II              | 0.3     | 1.3      | 1.9     | 0.6        | <b>1.0</b> |
| 16     | CICR 25-21 Bt II            | 0.5     | 0.9      | 1.1     | 0.8        | <b>0.8</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 0.7     | 1.1      | 0.4     | 1.2        | <b>0.9</b> |
| 18     | CCH 25-2 Bt II              | 0.1     | 1.2      | 2.2     | 1.3        | <b>1.2</b> |
|        | CD @ 5%                     | 0.2     | 0.8      | 0.5     | 0.8        |            |
|        | CV %                        | 33.6    | 47.9     | 18.4    | 56.9       |            |



**Number of sympodia in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 8.1     | 16.0     | 14.1    | 12.9       | <b>12.8</b> |
| 2      | CPDBt(HD)-2554              | 9.5     | 19.0     | 15.6    | 14.2       | <b>14.6</b> |
| 3      | CCH 25-1 Bt II              | 6.2     | 12.6     | 13.6    | 13.3       | <b>11.4</b> |
| 4      | Suraksha Bt                 | 5.6     | 15.5     | 13.7    | 14.0       | <b>12.2</b> |
| 5      | CCH 25-3 Bt II              | 8.6     | 13.8     | 12.7    | 14.0       | <b>12.3</b> |
| 6      | Subiksha Bt                 | 7.2     | 15.7     | 12.7    | 13.8       | <b>12.4</b> |
| 7      | Nano Bt                     | 7.8     | 12.7     | 12.9    | 14.9       | <b>12.1</b> |
| 8      | CICR Bt 25-24 Bt II         | 7.3     | 16.7     | 13.9    | 14.2       | <b>13.0</b> |
| 9      | CICR Bt 142                 | 7.9     | 14.6     | 12.1    | 12.1       | <b>11.7</b> |
| 10     | NH 22012 Bt                 | 10.5    | 14.7     | 15.8    | 15.4       | <b>14.1</b> |
| 11     | NH 22003 Bt                 | 8.1     | 12.6     | 16.6    | 15.8       | <b>13.3</b> |
| 12     | CICR 25-22 Bt II            | 7.2     | 13.5     | 15.6    | 12.8       | <b>12.3</b> |
| 13     | ADB-791Bt                   | 7.8     | 14.1     | 14.0    | 14.0       | <b>12.5</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 6.6     | 18.6     | 14.9    | 14.5       | <b>13.7</b> |
| 15     | CCH 25-4 Bt II              | 7.3     | 14.6     | 11.9    | 12.0       | <b>11.5</b> |
| 16     | CICR 25-21 Bt II            | 7.3     | 15.1     | 14.8    | 14.0       | <b>12.8</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 7.9     | 15.9     | 13.1    | 12.4       | <b>12.3</b> |
| 18     | CCH 25-2 Bt II              | 6.8     | 15.5     | 14.4    | 14.0       | <b>12.7</b> |
|        | CD @ 5%                     | 1.4     | 3.4      | 3.1     | 2.2        |             |
|        | CV %                        | 11.6    | 13.7     | 13.4    | 9.9        |             |



**Boll weight (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | CPDBt(HD)-2555              | 3.1     | 3.4      | 4.5     | 3.3        | <b>3.6</b> |
| 2      | CPDBt(HD)-2554              | 3.7     | 4.3      | 4.6     | 4.3        | <b>4.2</b> |
| 3      | CCH 25-1 Bt II              | 4.4     | 5.8      | 5.8     | 4.8        | <b>5.2</b> |
| 4      | Suraksha Bt                 | 2.9     | 4.4      | 4.5     | 4.6        | <b>4.1</b> |
| 5      | CCH 25-3 Bt II              | 3.8     | 4.5      | 5.3     | 4.2        | <b>4.5</b> |
| 6      | Subiksha Bt                 | 3.7     | 4.4      | 4.9     | 3.9        | <b>4.2</b> |
| 7      | Nano Bt                     | 3.8     | 3.9      | 4.9     | 3.7        | <b>4.1</b> |
| 8      | CICR Bt 25-24 Bt II         | 4.4     | 4.6      | 4.6     | 3.7        | <b>4.3</b> |
| 9      | CICR Bt 142                 | 4.2     | 4.6      | 4.8     | 4.7        | <b>4.6</b> |
| 10     | NH 22012 Bt                 | 4.3     | 4.5      | 4.5     | 4.3        | <b>4.4</b> |
| 11     | NH 22003 Bt                 | 3.8     | 4.8      | 5.0     | 4.5        | <b>4.5</b> |
| 12     | CICR 25-22 Bt II            | 4.3     | 4.7      | 4.6     | 4.6        | <b>4.6</b> |
| 13     | ADB-791Bt                   | 4.1     | 4.2      | 4.5     | 4.4        | <b>4.3</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.0     | 3.7      | 3.7     | 3.6        | <b>3.5</b> |
| 15     | CCH 25-4 Bt II              | 4.0     | 5.3      | 5.3     | 5.1        | <b>4.9</b> |
| 16     | CICR 25-21 Bt II            | 3.4     | 4.8      | 4.6     | 4.7        | <b>4.4</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 3.4     | 3.4      | 4.3     | 3.6        | <b>3.7</b> |
| 18     | CCH 25-2 Bt II              | 4.5     | 4.9      | 5.3     | 5.3        | <b>5.0</b> |
|        | CD @ 5%                     | 0.3     | 0.4      | 0.4     | 1.0        |            |
|        | CV %                        | 6.3     | 6.0      | 5.6     | 14.5       |            |



**Number of bolls / plant in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 12.1    | 15.9     | 8.6     | 11.3       | <b>12.0</b> |
| 2      | CPDBt(HD)-2554              | 12.9    | 17.8     | 7.0     | 13.5       | <b>12.8</b> |
| 3      | CCH 25-1 Bt II              | 8.1     | 7.7      | 4.6     | 8.7        | <b>7.3</b>  |
| 4      | Suraksha Bt                 | 9.3     | 11.2     | 6.2     | 10.2       | <b>9.2</b>  |
| 5      | CCH 25-3 Bt II              | 10.2    | 13.9     | 5.6     | 10.7       | <b>10.1</b> |
| 6      | Subiksha Bt                 | 9.9     | 9.9      | 6.5     | 10.1       | <b>9.1</b>  |
| 7      | Nano Bt                     | 11.0    | 10.2     | 6.3     | 9.7        | <b>9.3</b>  |
| 8      | CICR Bt 25-24 Bt II         | 11.0    | 8.6      | 7.0     | 11.6       | <b>9.6</b>  |
| 9      | CICR Bt 142                 | 12.2    | 10.3     | 6.7     | 9.9        | <b>9.8</b>  |
| 10     | NH 22012 Bt                 | 14.5    | 14.5     | 6.9     | 13.3       | <b>12.3</b> |
| 11     | NH 22003 Bt                 | 14.0    | 11.4     | 6.6     | 15.9       | <b>12.0</b> |
| 12     | CICR 25-22 Bt II            | 11.0    | 11.6     | 6.7     | 8.9        | <b>9.6</b>  |
| 13     | ADB-791Bt                   | 12.1    | 12.0     | 5.7     | 9.4        | <b>9.8</b>  |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 11.5    | 11.9     | 5.6     | 11.1       | <b>10.0</b> |
| 15     | CCH 25-4 Bt II              | 7.9     | 8.8      | 4.6     | 8.3        | <b>7.4</b>  |
| 16     | CICR 25-21 Bt II            | 11.5    | 9.7      | 5.8     | 9.2        | <b>9.1</b>  |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 12.8    | 13.9     | 5.5     | 9.8        | <b>10.5</b> |
| 18     | CCH 25-2 Bt II              | 8.5     | 9.9      | 5.5     | 10.2       | <b>8.5</b>  |
|        | CD @ 5%                     | 2.5     | 2.7      | 1.6     | 3.4        |             |
|        | CV %                        | 13.6    | 14.2     | 15.1    | 19.9       |             |



**Number of bolls / sq. m. in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 67.0    | 86.7     | 63.5    | 72.7       | <b>72.5</b> |
| 2      | CPDBt(HD)-2554              | 71.0    | 107.0    | 52.1    | 81.0       | <b>77.8</b> |
| 3      | CCH 25-1 Bt II              | 69.7    | 54.7     | 34.2    | 71.7       | <b>57.6</b> |
| 4      | Suraksha Bt                 | 55.0    | 78.0     | 45.9    | 80.7       | <b>64.9</b> |
| 5      | CCH 25-3 Bt II              | 62.3    | 95.0     | 41.6    | 85.0       | <b>71.0</b> |
| 6      | Subiksha Bt                 | 60.3    | 60.0     | 48.4    | 71.0       | <b>59.9</b> |
| 7      | Nano Bt                     | 66.0    | 75.0     | 46.9    | 73.0       | <b>65.2</b> |
| 8      | CICR Bt 25-24 Bt II         | 60.0    | 70.7     | 51.5    | 78.0       | <b>65.1</b> |
| 9      | CICR Bt 142                 | 65.3    | 61.3     | 49.6    | 75.7       | <b>63.0</b> |
| 10     | NH 22012 Bt                 | 80.3    | 77.3     | 51.2    | 91.3       | <b>75.0</b> |
| 11     | NH 22003 Bt                 | 66.3    | 101.0    | 49.0    | 108.7      | <b>81.3</b> |
| 12     | CICR 25-22 Bt II            | 67.7    | 78.0     | 49.6    | 71.3       | <b>66.7</b> |
| 13     | ADB-791Bt                   | 60.0    | 92.0     | 41.9    | 62.0       | <b>64.0</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 57.7    | 74.0     | 41.3    | 91.7       | <b>66.2</b> |
| 15     | CCH 25-4 Bt II              | 65.0    | 63.3     | 33.9    | 74.0       | <b>59.1</b> |
| 16     | CICR 25-21 Bt II            | 67.7    | 66.7     | 42.6    | 77.0       | <b>63.5</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 68.0    | 98.7     | 41.0    | 106.0      | <b>78.4</b> |
| 18     | CCH 25-2 Bt II              | 59.0    | 65.0     | 40.7    | 65.3       | <b>57.5</b> |
|        | CD @ 5%                     | 9.7     | 18.2     | 11.2    | 16.9       |             |
|        | CV %                        | 9.0     | 14.1     | 14.7    | 13.2       |             |



**Lint Index (g) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | CPDBt(HD)-2555              | 4.4     | 4.2      | 5.1     | 5.2        | <b>4.7</b> |
| 2      | CPDBt(HD)-2554              | 4.5     | 4.2      | 4.4     | 5.7        | <b>4.7</b> |
| 3      | CCH 25-1 Bt II              | 5.7     | 5.6      | 5.3     | 7.0        | <b>5.9</b> |
| 4      | Suraksha Bt                 | 5.0     | 4.8      | 5.2     | 6.5        | <b>5.4</b> |
| 5      | CCH 25-3 Bt II              | 4.8     | 3.9      | 5.2     | 6.0        | <b>5.0</b> |
| 6      | Subiksha Bt                 | 5.4     | 4.8      | 5.1     | 6.4        | <b>5.4</b> |
| 7      | Nano Bt                     | 6.2     | 4.6      | 5.8     | 7.2        | <b>6.0</b> |
| 8      | CICR Bt 25-24 Bt II         | 5.7     | 4.5      | 5.1     | 5.7        | <b>5.3</b> |
| 9      | CICR Bt 142                 | 5.8     | 4.3      | 4.6     | 6.3        | <b>5.3</b> |
| 10     | NH 22012 Bt                 | 5.6     | 4.9      | 5.1     | 5.7        | <b>5.3</b> |
| 11     | NH 22003 Bt                 | 4.9     | 5.2      | 5.9     | 5.3        | <b>5.3</b> |
| 12     | CICR 25-22 Bt II            | 5.5     | 4.7      | 5.1     | 6.4        | <b>5.4</b> |
| 13     | ADB-791Bt                   | 5.4     | 4.5      | 4.5     | 5.7        | <b>5.0</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 4.6     | 3.6      | 4.4     | 5.1        | <b>4.4</b> |
| 15     | CCH 25-4 Bt II              | 5.6     | 4.6      | 4.7     | 6.8        | <b>5.4</b> |
| 16     | CICR 25-21 Bt II            | 5.4     | 4.5      | 5.1     | 5.7        | <b>5.2</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 3.6     | 3.5      | 5.4     | 6.0        | <b>4.6</b> |
| 18     | CCH 25-2 Bt II              | 5.4     | 5.8      | 5.6     | 8.0        | <b>6.2</b> |
|        | CD @ 5%                     | 0.5     | 0.6      |         | 0.9        |            |
|        | CV %                        | 6.6     | 8.2      |         | 9.6        |            |





## Seed Index (g) in Initial Evaluation Trial of Hirsutum Variety

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 6.6     | 6.7      | 6.7     | 9.0        | <b>7.3</b>  |
| 2      | CPDBt(HD)-2554              | 7.7     | 8.8      | 8.1     | 10.0       | <b>8.7</b>  |
| 3      | CCH 25-1 Bt II              | 9.6     | 12.5     | 12.6    | 12.7       | <b>11.9</b> |
| 4      | Suraksha Bt                 | 9.0     | 10.3     | 10.0    | 12.3       | <b>10.4</b> |
| 5      | CCH 25-3 Bt II              | 8.5     | 9.6      | 10.5    | 11.6       | <b>10.1</b> |
| 6      | Subiksha Bt                 | 9.4     | 10.3     | 11.1    | 11.7       | <b>10.6</b> |
| 7      | Nano Bt                     | 9.0     | 9.9      | 11.3    | 12.3       | <b>10.6</b> |
| 8      | CICR Bt 25-24 Bt II         | 8.8     | 9.8      | 10.0    | 11.1       | <b>9.9</b>  |
| 9      | CICR Bt 142                 | 9.0     | 10.3     | 9.8     | 11.5       | <b>10.2</b> |
| 10     | NH 22012 Bt                 | 8.5     | 10.9     | 10.2    | 11.3       | <b>10.2</b> |
| 11     | NH 22003 Bt                 | 9.3     | 10.7     | 10.7    | 10.2       | <b>10.2</b> |
| 12     | CICR 25-22 Bt II            | 9.4     | 10.4     | 10.8    | 12.1       | <b>10.7</b> |
| 13     | ADB-791Bt                   | 9.1     | 10.4     | 10.6    | 11.0       | <b>10.3</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 7.2     | 8.9      | 8.4     | 10.2       | <b>8.7</b>  |
| 15     | CCH 25-4 Bt II              | 10.1    | 11.9     | 11.8    | 12.8       | <b>11.7</b> |
| 16     | CICR 25-21 Bt II            | 8.9     | 9.9      | 10.6    | 12.0       | <b>10.4</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 8.4     | 8.4      | 10.0    | 11.4       | <b>9.6</b>  |
| 18     | CCH 25-2 Bt II              | 10.5    | 12.5     | 11.6    | 13.3       | <b>12.0</b> |
|        | CD @ 5%                     | 0.6     | 1.3      |         | 1.3        |             |
|        | CV %                        | 4.1     | 8.0      |         | 7.0        |             |



**Ginning outturn (%) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 40.2    | 38.7     | 43.3    | 36.8       | <b>39.8</b> |
| 2      | CPDBt(HD)-2554              | 36.9    | 30.0     | 35.3    | 36.6       | <b>34.7</b> |
| 3      | CCH 25-1 Bt II              | 37.1    | 31.0     | 29.6    | 35.4       | <b>33.3</b> |
| 4      | Suraksha Bt                 | 35.5    | 31.9     | 34.3    | 34.3       | <b>34.0</b> |
| 5      | CCH 25-3 Bt II              | 36.0    | 28.7     | 33.1    | 34.1       | <b>33.0</b> |
| 6      | Subiksha Bt                 | 36.5    | 31.8     | 31.6    | 35.5       | <b>33.9</b> |
| 7      | Nano Bt                     | 40.7    | 31.6     | 33.9    | 37.0       | <b>35.8</b> |
| 8      | CICR Bt 25-24 Bt II         | 39.1    | 31.4     | 33.9    | 33.8       | <b>34.6</b> |
| 9      | CICR Bt 142                 | 39.3    | 29.7     | 32.0    | 35.5       | <b>34.1</b> |
| 10     | NH 22012 Bt                 | 39.8    | 31.4     | 33.3    | 33.7       | <b>34.6</b> |
| 11     | NH 22003 Bt                 | 34.4    | 32.5     | 35.7    | 34.1       | <b>34.2</b> |
| 12     | CICR 25-22 Bt II            | 37.0    | 31.2     | 32.0    | 34.3       | <b>33.6</b> |
| 13     | ADB-791Bt                   | 37.3    | 30.3     | 29.9    | 33.9       | <b>32.9</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 38.9    | 28.6     | 34.2    | 33.2       | <b>33.7</b> |
| 15     | CCH 25-4 Bt II              | 35.7    | 28.0     | 28.3    | 34.4       | <b>31.6</b> |
| 16     | CICR 25-21 Bt II            | 37.8    | 31.1     | 32.7    | 32.2       | <b>33.5</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 29.9    | 29.3     | 35.0    | 34.5       | <b>32.2</b> |
| 18     | CCH 25-2 Bt II              | 34.0    | 31.5     | 32.7    | 37.6       | <b>34.0</b> |
|        | CD @ 5%                     | 2.6     | 2.3      |         | 3.8        |             |
|        | CV %                        | 4.2     | 4.5      |         | 6.9        |             |



**Upper Half Mean Length (mm) under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 25.2    | 25.3     | 27.3    | 25.3       | <b>25.8</b> |
| 2      | CPDBt(HD)-2554              | 25.5    | 26.2     | 27.2    | 25.4       | <b>26.1</b> |
| 3      | CCH 25-1 Bt II              | 30.7    | 31.5     | 34.2    | 33.6       | <b>32.5</b> |
| 4      | Suraksha Bt                 | 29.1    | 29.9     | 33.3    | 32.4       | <b>31.2</b> |
| 5      | CCH 25-3 Bt II              | 30.5    | 32.0     | 32.9    | 32.1       | <b>31.9</b> |
| 6      | Subiksha Bt                 | 30.1    | 29.3     | 32.0    | 31.9       | <b>30.8</b> |
| 7      | Nano Bt                     | 28.5    | 28.4     | 30.6    | 30.2       | <b>29.4</b> |
| 8      | CICR Bt 25-24 Bt II         | 27.9    | 27.8     | 32.3    | 29.9       | <b>29.5</b> |
| 9      | CICR Bt 142                 | 26.8    | 27.4     | 29.2    | 28.4       | <b>28.0</b> |
| 10     | NH 22012 Bt                 | 26.5    | 26.1     | 28.6    | 29.1       | <b>27.6</b> |
| 11     | NH 22003 Bt                 | 26.6    | 26.6     | 29.0    | 27.9       | <b>27.5</b> |
| 12     | CICR 25-22 Bt II            | 26.2    | 24.7     | 27.8    | 26.0       | <b>26.2</b> |
| 13     | ADB-791Bt                   | 28.1    | 28.3     | 28.3    | 29.3       | <b>28.5</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 26.6    | 26.2     | 29.0    | 27.3       | <b>27.3</b> |
| 15     | CCH 25-4 Bt II              | 33.7    | 31.7     | 33.0    | 35.2       | <b>33.4</b> |
| 16     | CICR 25-21 Bt II            | 27.9    | 27.7     | 31.4    | 30.7       | <b>29.4</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 26.0    | 26.1     | 28.0    | 26.9       | <b>26.8</b> |
| 18     | CCH 25-2 Bt II              | 30.2    | 30.4     | 31.0    | 32.4       | <b>31.0</b> |

**Uniformity index under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 80.0    | 81.0     | 84.0    | 83.0       | <b>82.0</b> |
| 2      | CPDBt(HD)-2554              | 82.0    | 81.0     | 85.0    | 83.0       | <b>82.8</b> |
| 3      | CCH 25-1 Bt II              | 84.0    | 84.0     | 87.0    | 87.0       | <b>85.5</b> |
| 4      | Suraksha Bt                 | 84.0    | 83.0     | 88.0    | 87.0       | <b>85.5</b> |
| 5      | CCH 25-3 Bt II              | 83.0    | 83.0     | 85.0    | 85.0       | <b>84.0</b> |
| 6      | Subiksha Bt                 | 85.0    | 85.0     | 87.0    | 88.0       | <b>86.3</b> |
| 7      | Nano Bt                     | 83.0    | 85.0     | 87.0    | 86.0       | <b>85.3</b> |
| 8      | CICR Bt 25-24 Bt II         | 82.0    | 81.0     | 86.0    | 82.0       | <b>82.8</b> |
| 9      | CICR Bt 142                 | 81.0    | 81.0     | 85.0    | 83.0       | <b>82.5</b> |
| 10     | NH 22012 Bt                 | 82.0    | 81.0     | 85.0    | 84.0       | <b>83.0</b> |
| 11     | NH 22003 Bt                 | 82.0    | 81.0     | 86.0    | 84.0       | <b>83.3</b> |
| 12     | CICR 25-22 Bt II            | 82.0    | 82.0     | 85.0    | 85.0       | <b>83.5</b> |
| 13     | ADB-791Bt                   | 83.0    | 83.0     | 86.0    | 85.0       | <b>84.3</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 79.0    | 80.0     | 84.0    | 83.0       | <b>81.5</b> |
| 15     | CCH 25-4 Bt II              | 82.0    | 82.0     | 84.0    | 84.0       | <b>83.0</b> |
| 16     | CICR 25-21 Bt II            | 83.0    | 82.0     | 84.0    | 84.0       | <b>83.3</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 82.0    | 83.0     | 86.0    | 85.0       | <b>84.0</b> |
| 18     | CCH 25-2 Bt II              | 84.0    | 84.0     | 86.0    | 84.0       | <b>84.5</b> |



**Micronaire under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean       |
|--------|-----------------------------|---------|----------|---------|------------|------------|
| 1      | CPDBt(HD)-2555              | 4.3     | 4.4      | 4.5     | 5.5        | <b>4.7</b> |
| 2      | CPDBt(HD)-2554              | 4.1     | 3.8      | 4.3     | 5.1        | <b>4.3</b> |
| 3      | CCH 25-1 Bt II              | 3.6     | 4.0      | 4.0     | 4.0        | <b>3.9</b> |
| 4      | Suraksha Bt                 | 4.0     | 3.9      | 4.3     | 4.8        | <b>4.3</b> |
| 5      | CCH 25-3 Bt II              | 3.7     | 0.3      | 3.9     | 3.6        | <b>2.9</b> |
| 6      | Subiksha Bt                 | 3.8     | 4.1      | 3.9     | 4.3        | <b>4.0</b> |
| 7      | Nano Bt                     | 3.2     | 3.3      | 3.7     | 3.8        | <b>3.5</b> |
| 8      | CICR Bt 25-24 Bt II         | 3.7     | 3.7      | 3.1     | 3.8        | <b>3.6</b> |
| 9      | CICR Bt 142                 | 3.8     | 3.5      | 3.2     | 3.6        | <b>3.5</b> |
| 10     | NH 22012 Bt                 | 4.5     | 3.9      | 4.8     | 4.4        | <b>4.4</b> |
| 11     | NH 22003 Bt                 | 4.6     | 4.7      | 5.1     | 5.5        | <b>5.0</b> |
| 12     | CICR 25-22 Bt II            | 4.2     | 4.7      | 4.2     | 5.4        | <b>4.6</b> |
| 13     | ADB-791Bt                   | 3.9     | 4.2      | 4.5     | 4.6        | <b>4.3</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 3.7     | 4.1      | 4.2     | 4.6        | <b>4.2</b> |
| 15     | CCH 25-4 Bt II              | 3.9     | 3.8      | 4.1     | 3.8        | <b>3.9</b> |
| 16     | CICR 25-21 Bt II            | 3.7     | 3.5      | 2.7     | 3.8        | <b>3.4</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 3.7     | 3.7      | 4.0     | 4.1        | <b>3.9</b> |
| 18     | CCH 25-2 Bt II              | 3.6     | 3.8      | 4.1     | 4.7        | <b>4.1</b> |

**Tenacity under HVI Mode in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 27.1    | 27.0     | 29.2    | 26.6       | <b>27.5</b> |
| 2      | CPDBt(HD)-2554              | 27.0    | 27.1     | 28.9    | 26.8       | <b>27.5</b> |
| 3      | CCH 25-1 Bt II              | 31.6    | 31.5     | 32.7    | 30.7       | <b>31.6</b> |
| 4      | Suraksha Bt                 | 30.3    | 32.2     | 31.9    | 31.2       | <b>31.4</b> |
| 5      | CCH 25-3 Bt II              | 30.9    | 32.3     | 30.8    | 31.0       | <b>31.3</b> |
| 6      | Subiksha Bt                 | 31.1    | 32.3     | 31.9    | 31.4       | <b>31.7</b> |
| 7      | Nano Bt                     | 30.7    | 30.1     | 32.8    | 31.5       | <b>31.3</b> |
| 8      | CICR Bt 25-24 Bt II         | 29.1    | 29.3     | 29.5    | 30.2       | <b>29.5</b> |
| 9      | CICR Bt 142                 | 27.0    | 28.1     | 28.5    | 29.2       | <b>28.2</b> |
| 10     | NH 22012 Bt                 | 27.5    | 27.7     | 27.7    | 29.2       | <b>28.0</b> |
| 11     | NH 22003 Bt                 | 28.8    | 27.4     | 29.9    | 27.7       | <b>28.5</b> |
| 12     | CICR 25-22 Bt II            | 27.7    | 25.6     | 28.5    | 27.8       | <b>27.4</b> |
| 13     | ADB-791Bt                   | 30.1    | 30.5     | 29.3    | 31.4       | <b>30.3</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 28.7    | 28.1     | 29.4    | 28.0       | <b>28.6</b> |
| 15     | CCH 25-4 Bt II              | 32.7    | 31.9     | 30.7    | 32.0       | <b>31.8</b> |
| 16     | CICR 25-21 Bt II            | 29.1    | 28.9     | 28.4    | 30.6       | <b>29.3</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 26.2    | 27.9     | 29.4    | 28.8       | <b>28.1</b> |
| 18     | CCH 25-2 Bt II              | 31.4    | 30.7     | 31.7    | 31.2       | <b>31.3</b> |



**Seed Cotton Yield at 140 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean         |
|--------|-----------------------------|---------|----------|---------|------------|--------------|
| 1      | CPDBt(HD)-2555              | 13.16   | 17.15    | 11.42   | 7.67       | <b>12.35</b> |
| 2      | CPDBt(HD)-2554              | 16.19   | 24.26    | 12.01   | 8.20       | <b>15.17</b> |
| 3      | CCH 25-1 Bt II              | 14.56   | 17.24    | 5.62    | 7.39       | <b>11.20</b> |
| 4      | Suraksha Bt                 | 11.92   | 16.34    | 5.62    | 14.63      | <b>12.13</b> |
| 5      | CCH 25-3 Bt II              | 12.81   | 20.21    | 5.35    | 10.14      | <b>12.13</b> |
| 6      | Subiksha Bt                 | 11.32   | 7.97     | 5.69    | 6.89       | <b>7.97</b>  |
| 7      | Nano Bt                     | 13.63   | 15.03    | 4.44    | 12.58      | <b>11.42</b> |
| 8      | CICR Bt 25-24 Bt II         | 14.02   | 21.03    | 6.31    | 10.82      | <b>13.05</b> |
| 9      | CICR Bt 142                 | 14.71   | 15.94    | 8.94    | 10.15      | <b>12.44</b> |
| 10     | NH 22012 Bt                 | 16.30   | 21.53    | 2.50    | 13.23      | <b>13.39</b> |
| 11     | NH 22003 Bt                 | 15.89   | 18.89    | 9.08    | 10.99      | <b>13.71</b> |
| 12     | CICR 25-22 Bt II            | 16.05   | 19.51    | 5.80    | 8.45       | <b>12.45</b> |
| 13     | ADB-791Bt                   | 13.03   | 16.00    | 3.00    | 5.60       | <b>9.41</b>  |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 11.05   | 9.76     | 1.92    | 8.72       | <b>7.86</b>  |
| 15     | CCH 25-4 Bt II              | 11.47   | 15.64    | 3.81    | 9.47       | <b>10.10</b> |
| 16     | CICR 25-21 Bt II            | 15.20   | 18.14    | 5.14    | 11.65      | <b>12.53</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 14.85   | 21.49    | 5.80    | 14.92      | <b>14.27</b> |
| 18     | CCH 25-2 Bt II              | 14.01   | 16.44    | 6.13    | 11.77      | <b>12.09</b> |
|        | CD @ 5%                     | 1.40    | 3.88     | 1.43    | 3.14       |              |
|        | CV %                        | 6.30    | 13.46    | 14.20   | 19.25      |              |



**Seed Cotton Yield at 165 DAS (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean        |
|--------|-----------------------------|---------|----------|---------|------------|-------------|
| 1      | CPDBt(HD)-2555              | 1.69    | 2.33     | 7.14    | 1.27       | <b>3.11</b> |
| 2      | CPDBt(HD)-2554              | 4.13    | 2.30     | 7.45    | 1.17       | <b>3.76</b> |
| 3      | CCH 25-1 Bt II              | 3.67    | 3.55     | 5.55    | 1.00       | <b>3.44</b> |
| 4      | Suraksha Bt                 | 1.81    | 4.47     | 6.76    | 1.24       | <b>3.57</b> |
| 5      | CCH 25-3 Bt II              | 1.47    | 3.37     | 6.68    | 1.15       | <b>3.17</b> |
| 6      | Subiksha Bt                 | 1.87    | 4.01     | 6.98    | 1.37       | <b>3.56</b> |
| 7      | Nano Bt                     | 2.58    | 3.21     | 7.54    | 1.12       | <b>3.61</b> |
| 8      | CICR Bt 25-24 Bt II         | 2.94    | 2.22     | 5.78    | 1.29       | <b>3.06</b> |
| 9      | CICR Bt 142                 | 4.14    | 2.75     | 6.09    | 1.12       | <b>3.53</b> |
| 10     | NH 22012 Bt                 | 2.73    | 3.03     | 5.01    | 1.17       | <b>2.99</b> |
| 11     | NH 22003 Bt                 | 3.55    | 1.90     | 6.03    | 1.16       | <b>3.16</b> |
| 12     | CICR 25-22 Bt II            | 3.44    | 2.09     | 5.79    | 1.12       | <b>3.11</b> |
| 13     | ADB-791Bt                   | 1.81    | 2.27     | 4.90    | 1.01       | <b>2.50</b> |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 1.68    | 2.72     | 7.48    | 1.53       | <b>3.35</b> |
| 15     | CCH 25-4 Bt II              | 1.46    | 4.01     | 4.85    | 1.24       | <b>2.89</b> |
| 16     | CICR 25-21 Bt II            | 5.13    | 2.23     | 6.10    | 1.28       | <b>3.69</b> |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 3.01    | 3.64     | 7.09    | 1.07       | <b>3.70</b> |
| 18     | CCH 25-2 Bt II              | 2.54    | 3.41     | 5.44    | 1.05       | <b>3.11</b> |
|        | CD @ 5%                     | 0.60    | 0.72     | 1.62    | 0.36       |             |
|        | CV %                        | 13.70   | 14.53    | 15.60   | 19.08      |             |



**Total Seed Cotton Yield (q/ha) in Initial Evaluation Trial of Hirsutum Variety**

| S. No. | Entries                     | Mudhole | Adilabad | Dharwad | Perambalur | Mean         | Rank | % Inc over best check |
|--------|-----------------------------|---------|----------|---------|------------|--------------|------|-----------------------|
| 1      | CPDBt(HD)-2555              | 14.85   | 19.48    | 18.55   | 8.94       | <b>15.46</b> | 10   | -14.0                 |
| 2      | CPDBt(HD)-2554              | 20.32   | 26.56    | 19.47   | 9.37       | <b>18.93</b> | 1    | 5.3                   |
| 3      | CCH 25-1 Bt II              | 18.22   | 20.79    | 11.17   | 8.39       | <b>14.64</b> | 14   | -18.5                 |
| 4      | Suraksha Bt                 | 13.73   | 20.80    | 12.38   | 15.87      | <b>15.70</b> | 8    | -12.7                 |
| 5      | CCH 25-3 Bt II              | 14.27   | 23.58    | 12.03   | 11.29      | <b>15.29</b> | 11   | -14.9                 |
| 6      | Subiksha Bt                 | 13.19   | 11.99    | 12.68   | 8.26       | <b>11.53</b> | 17   | -35.8                 |
| 7      | Nano Bt                     | 16.21   | 18.24    | 11.98   | 13.70      | <b>15.03</b> | 13   | -16.3                 |
| 8      | CICR Bt 25-24 Bt II         | 16.96   | 23.25    | 12.08   | 12.11      | <b>16.10</b> | 6    | -10.4                 |
| 9      | CICR Bt 142                 | 18.85   | 18.68    | 15.03   | 11.27      | <b>15.96</b> | 7    | -11.2                 |
| 10     | NH 22012 Bt                 | 19.03   | 24.57    | 7.52    | 14.40      | <b>16.38</b> | 4    | -8.8                  |
| 11     | NH 22003 Bt                 | 19.44   | 20.79    | 15.11   | 12.15      | <b>16.87</b> | 3    | -6.1                  |
| 12     | CICR 25-22 Bt II            | 19.49   | 21.59    | 11.59   | 9.57       | <b>15.56</b> | 9    | -13.4                 |
| 13     | ADB-791Bt                   | 14.84   | 18.27    | 7.90    | 6.61       | <b>11.91</b> | 16   | -33.8                 |
| 14     | <b>CICR 23 Bt (ZC Bt-1)</b> | 12.74   | 12.48    | 9.40    | 10.25      | <b>11.22</b> | 18   | -37.6                 |
| 15     | CCH 25-4 Bt II              | 12.93   | 19.65    | 8.66    | 10.71      | <b>12.99</b> | 15   | -27.7                 |
| 16     | CICR 25-21 Bt II            | 20.32   | 20.37    | 11.24   | 12.93      | <b>16.22</b> | 5    | -9.8                  |
| 17     | <b>PKV 081 Bt (ZC Bt-2)</b> | 17.86   | 25.13    | 12.89   | 15.99      | <b>17.97</b> | 2    | 0.0                   |
| 18     | CCH 25-2 Bt II              | 16.55   | 19.85    | 11.57   | 12.82      | <b>15.20</b> | 12   | -15.4                 |
|        | CD @ 5%                     | 1.70    | 4.75     | 1.85    | 3.04       |              |      |                       |
|        | CV %                        | 6.20    | 10.57    | 9.10    | 16.72      |              |      |                       |



**Evaluation under Protected Condition for Insect pests**  
**Reaction to Insect Pest**

**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions –  
Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |      |    |      |      |             | Remark      |
|----------------------|-----------------------------------|------|----|------|------|-------------|-------------|
|                      | NA                                | DH   | PE | AD   | MU   | Mean        |             |
| CPDBt(HD)-2555       | -                                 | 2.54 | -  | 0.73 | 1.09 | <b>1.45</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | -                                 | 2.22 | -  | 0.77 | 2.81 | <b>1.93</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | -                                 | 2.97 | -  | 0.77 | 3.87 | <b>2.54</b> | <b>BETL</b> |
| Suraksha Bt          | -                                 | 2.45 | -  | 1.13 | 3.28 | <b>2.28</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | -                                 | 2.20 | -  | 0.87 | 2.47 | <b>1.85</b> | <b>BETL</b> |
| Subiksha Bt          | -                                 | 2.40 | -  | 1.20 | 2.10 | <b>1.90</b> | <b>BETL</b> |
| Nano Bt              | -                                 | 2.75 | -  | 1.30 | 2.52 | <b>2.19</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | -                                 | 2.18 | -  | 0.93 | 2.37 | <b>1.83</b> | <b>BETL</b> |
| CICR Bt 142          | -                                 | 2.07 | -  | 0.83 | 1.38 | <b>1.42</b> | <b>BETL</b> |
| NH 22012 Bt          | -                                 | 2.26 | -  | 0.90 | 2.25 | <b>1.80</b> | <b>BETL</b> |
| NH 22003 Bt          | -                                 | 2.26 | -  | 1.07 | 2.36 | <b>1.89</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | -                                 | 2.03 | -  | 0.80 | 4.37 | <b>2.40</b> | <b>BETL</b> |
| ADB-791Bt            | -                                 | 2.04 | -  | 0.83 | 1.83 | <b>1.57</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                 | 2.11 | -  | 0.73 | 1.43 | <b>1.42</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | -                                 | 1.98 | -  | 0.73 | 4.52 | <b>2.41</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | -                                 | 1.96 | -  | 0.57 | 2.58 | <b>1.70</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                 | 1.39 | -  | 0.57 | 1.23 | <b>1.06</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | -                                 | 2.04 | -  | 0.77 | 1.83 | <b>1.55</b> | <b>BETL</b> |

**NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**





**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions –Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |      |       |      |      |             | Remark      |
|----------------------|----------------------------------------|------|-------|------|------|-------------|-------------|
|                      | NA                                     | DH   | PE    | AD   | MU   | Mean        |             |
| CPDBt(HD)-2555       | -                                      | 1.17 | 8.67  | 0.39 | 1.63 | <b>2.96</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | -                                      | 0.90 | 11.33 | 0.24 | 3.05 | <b>3.88</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | -                                      | 0.96 | 9.33  | 0.39 | 1.53 | <b>3.05</b> | <b>BETL</b> |
| Suraksha Bt          | -                                      | 1.04 | 8.67  | 0.31 | 1.73 | <b>2.94</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | -                                      | 1.06 | 11.67 | 0.26 | 2.34 | <b>3.83</b> | <b>BETL</b> |
| Subiksha Bt          | -                                      | 1.26 | 9.33  | 0.42 | 1.73 | <b>3.19</b> | <b>BETL</b> |
| Nano Bt              | -                                      | 1.17 | 12.00 | 0.45 | 1.73 | <b>3.84</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | -                                      | 1.17 | 6.67  | 2.1  | 1.22 | <b>2.79</b> | <b>BETL</b> |
| CICR Bt 142          | -                                      | 0.91 | 9.33  | 0.37 | 0.71 | <b>2.83</b> | <b>BETL</b> |
| NH 22012 Bt          | -                                      | 1.10 | 8.33  | 0.32 | 2.04 | <b>2.95</b> | <b>BETL</b> |
| NH 22003 Bt          | -                                      | 1.02 | 6.67  | 0.4  | 1.63 | <b>2.43</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | -                                      | 1.30 | 8.33  | 0.39 | 0.92 | <b>2.73</b> | <b>BETL</b> |
| ADB-791Bt            | -                                      | 0.99 | 7.33  | 0.26 | 1.42 | <b>2.50</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                      | 1.18 | 9.33  | 0.25 | 2.34 | <b>3.28</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | -                                      | 1.09 | 9.33  | 0.43 | 2.95 | <b>3.45</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | -                                      | 0.85 | 7.33  | 0.34 | 1.63 | <b>2.54</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                      | 1.07 | 9.67  | 0.5  | 1.02 | <b>3.06</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | -                                      | 0.86 | 10.00 | 0.35 | 2.04 | <b>3.31</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – JIG**

| Name of Entry        | JIG/plant |    |    |    |    |      | Remark |
|----------------------|-----------|----|----|----|----|------|--------|
|                      | NA        | DH | PE | AD | MU | Mean |        |
| CPDBt(HD)-2555       | -         |    | -  | -  | -  |      |        |
| CPDBt(HD)-2554       | -         |    | -  | -  | -  |      |        |
| CCH 25-1 Bt II       | -         |    | -  | -  | -  |      |        |
| Suraksha Bt          | -         |    | -  | -  | -  |      |        |
| CCH 25-3 Bt II       | -         |    | -  | -  | -  |      |        |
| Subiksha Bt          | -         |    | -  | -  | -  |      |        |
| Nano Bt              | -         |    | -  | -  | -  |      |        |
| CICR Bt 25-24 Bt II  | -         |    | -  | -  | -  |      |        |
| CICR Bt 142          | -         |    | -  | -  | -  |      |        |
| NH 22012 Bt          | -         |    | -  | -  | -  |      |        |
| NH 22003 Bt          | -         |    | -  | -  | -  |      |        |
| CICR 25-22 Bt II     | -         |    | -  | -  | -  |      |        |
| ADB-791Bt            | -         |    | -  | -  | -  |      |        |
| CICR 23 Bt (ZC Bt-1) | -         |    | -  | -  | -  |      |        |
| CCH 25-4 Bt II       | -         |    | -  | -  | -  |      |        |
| CICR 25-21 Bt II     | -         |    | -  | -  | -  |      |        |
| PKV 081 Bt (ZC Bt-2) | -         |    | -  | -  | -  |      |        |
| CCH 25-2 Bt II       | -         |    | -  | -  | -  |      |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|------|-------------|-------------|
|                      | NA                                 | DH   | PE   | AD   | MU   | Mean        |             |
| CPDBt(HD)-2555       | -                                  | 2.67 | 0.00 | 1.40 | 1.93 | <b>1.50</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | -                                  | 2.72 | 0.00 | 1.20 | 0.76 | <b>1.17</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | -                                  | 2.45 | 0.00 | 1.30 | 1.42 | <b>1.29</b> | <b>BETL</b> |
| Suraksha Bt          | -                                  | 3.53 | 0.00 | 1.37 | 3.61 | <b>2.13</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | -                                  | 3.19 | 0.00 | 0.93 | 1.53 | <b>1.41</b> | <b>BETL</b> |
| Subiksha Bt          | -                                  | 4.07 | 0.00 | 0.80 | 1.04 | <b>1.48</b> | <b>BETL</b> |
| Nano Bt              | -                                  | 3.38 | 0.00 | 1.60 | 0.92 | <b>1.47</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | -                                  | 3.23 | 0.00 | 0.60 | 3.08 | <b>1.73</b> | <b>BETL</b> |
| CICR Bt 142          | -                                  | 2.89 | 0.00 | 1.33 | 0.38 | <b>1.15</b> | <b>BETL</b> |
| NH 22012 Bt          | -                                  | 2.72 | 0.00 | 1.33 | 2.19 | <b>1.56</b> | <b>BETL</b> |
| NH 22003 Bt          | -                                  | 2.45 | 0.00 | 0.93 | 1.88 | <b>1.32</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | -                                  | 3.53 | 0.00 | 1.07 | 2.59 | <b>1.80</b> | <b>BETL</b> |
| ADB-791Bt            | -                                  | 3.19 | 0.00 | 0.97 | 2.21 | <b>1.59</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                  | 3.83 | 0.00 | 0.97 | 0.18 | <b>1.24</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | -                                  | 3.38 | 0.00 | 0.90 | 1.35 | <b>1.41</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | -                                  | 3.43 | 0.00 | 1.03 | 2.29 | <b>1.69</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                  | 3.95 | 0.00 | 1.03 | 0.57 | <b>1.39</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | -                                  | 2.76 | 0.00 | 1.10 | 0.31 | <b>1.04</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |      |             | Remark      |
|----------------------|--------------------------------------|------|------|------|------|-------------|-------------|
|                      | NA                                   | DH   | PE   | AD   | MU   | Mean        |             |
| CPDBt(HD)-2555       | -                                    | 0.24 | 0.00 | 0.40 | 0.48 | <b>0.28</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | -                                    | 0.18 | 0.33 | 0.57 | 0.37 | <b>0.36</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | -                                    | 0.10 | 0.67 | 0.37 | 0.37 | <b>0.38</b> | <b>BETL</b> |
| Suraksha Bt          | -                                    | 0.15 | 0.67 | 0.50 | 0.41 | <b>0.43</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | -                                    | 0.11 | 0.33 | 0.33 | 0.26 | <b>0.26</b> | <b>BETL</b> |
| Subiksha Bt          | -                                    | 0.08 | 0.33 | 0.13 | 0.37 | <b>0.23</b> | <b>BETL</b> |
| Nano Bt              | -                                    | 0.15 | 0.00 | 0.23 | 0.33 | <b>0.18</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | -                                    | 0.15 | 0.00 | 0.33 | 0.45 | <b>0.23</b> | <b>BETL</b> |
| CICR Bt 142          | -                                    | 0.12 | 0.67 | 0.23 | 0.45 | <b>0.37</b> | <b>BETL</b> |
| NH 22012 Bt          | -                                    | 0.18 | 0.00 | 0.33 | 0.71 | <b>0.30</b> | <b>BETL</b> |
| NH 22003 Bt          | -                                    | 0.10 | 0.67 | 0.13 | 0.48 | <b>0.35</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | -                                    | 0.15 | 0.00 | 0.13 | 0.63 | <b>0.23</b> | <b>BETL</b> |
| ADB-791Bt            | -                                    | 0.16 | 0.00 | 0.33 | 0.41 | <b>0.22</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                    | 0.10 | 0.33 | 0.33 | 0.37 | <b>0.28</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | -                                    | 0.19 | 0.00 | 0.53 | 0.26 | <b>0.25</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | -                                    | 0.13 | 0.33 | 0.33 | 0.48 | <b>0.32</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                    | 0.03 | 0.00 | 0.30 | 0.37 | <b>0.18</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | -                                    | 0.06 | 0.00 | 0.27 | 0.19 | <b>0.13</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |      |    |             | Remark |
|----------------------|-----------------------------|------|------|------|----|-------------|--------|
|                      | NA                          | DH   | PE   | AD   | MU | Mean        |        |
| CPDBt(HD)-2555       | -                           | 0.47 | 0.00 | 0.00 | -  | <b>0.16</b> |        |
| CPDBt(HD)-2554       | -                           | 0.60 | 0.00 | 0.00 | -  | <b>0.20</b> |        |
| CCH 25-1 Bt II       | -                           | 0.49 | 0.00 | 0.00 | -  | <b>0.16</b> |        |
| Suraksha Bt          | -                           | 0.22 | 0.00 | 0.00 | -  | <b>0.07</b> |        |
| CCH 25-3 Bt II       | -                           | 0.30 | 0.00 | 0.00 | -  | <b>0.10</b> |        |
| Subiksha Bt          | -                           | 0.24 | 0.00 | 0.00 | -  | <b>0.08</b> |        |
| Nano Bt              | -                           | 0.13 | 0.00 | 0.00 | -  | <b>0.04</b> |        |
| CICR Bt 25-24 Bt II  | -                           | 0.42 | 0.00 | 0.00 | -  | <b>0.14</b> |        |
| CICR Bt 142          | -                           | 0.49 | 0.00 | 0.00 | -  | <b>0.16</b> |        |
| NH 22012 Bt          | -                           | 0.17 | 0.00 | 0.00 | -  | <b>0.06</b> |        |
| NH 22003 Bt          | -                           | 0.56 | 0.00 | 0.00 | -  | <b>0.19</b> |        |
| CICR 25-22 Bt II     | -                           | 0.11 | 0.00 | 0.00 | -  | <b>0.04</b> |        |
| ADB-791Bt            | -                           | 0.32 | 0.00 | 0.00 | -  | <b>0.11</b> |        |
| CICR 23 Bt (ZC Bt-1) | -                           | 0.48 | 0.00 | 0.00 | -  | <b>0.16</b> |        |
| CCH 25-4 Bt II       | -                           | 0.13 | 0.00 | 0.00 | -  | <b>0.04</b> |        |
| CICR 25-21 Bt II     | -                           | 0.40 | 0.00 | 0.00 | -  | <b>0.13</b> |        |
| PKV 081 Bt (ZC Bt-2) | -                           | 0.27 | 0.00 | 0.00 | -  | <b>0.09</b> |        |
| CCH 25-2 Bt II       | -                           | 0.11 | 0.00 | 0.00 | -  | <b>0.04</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions –*Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |      |    |             | Remark      |
|----------------------|---------------------------------------------|------|------|------|----|-------------|-------------|
|                      | NA                                          | DH   | PE   | AD   | MU | Mean        |             |
| CPDBt(HD)-2555       | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Suraksha Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Subiksha Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Nano Bt              | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR Bt 142          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| NH 22012 Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| NH 22003 Bt          | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| ADB-791Bt            | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | -                                           | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |

**NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No. /5 plants) |      |      |      |    |             | Remark      |
|----------------------|-----------------------------------|------|------|------|----|-------------|-------------|
|                      | NA                                | DH   | PE   | AD   | MU | Mean        |             |
| CPDBt(HD)-2555       | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Suraksha Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Subiksha Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| Nano Bt              | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR Bt 142          | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| NH 22012 Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| NH 22003 Bt          | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| ADB-791Bt            | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | -                                 | 0.00 | 0.00 | 0.00 | -  | <b>0.00</b> | <b>BETL</b> |

**NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No. /5 plants) |      |      |      |    |      | Remark |
|----------------------|------------------------------------------|------|------|------|----|------|--------|
|                      | NA                                       | DH   | PE   | AD   | MU | Mean |        |
| CPDBt(HD)-2555       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt(HD)-2554       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-1 Bt II       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Suraksha Bt          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-3 Bt II       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Subiksha Bt          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Nano Bt              | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 25-24 Bt II  | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 142          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22012 Bt          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22003 Bt          | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-22 Bt II     | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ADB-791Bt            | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-4 Bt II       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-21 Bt II     | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-2 Bt II       | -                                        | 0.00 | 0.00 | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |      |    |             | Remark      |
|----------------------|---------------------------------------------------------|------|------|------|----|-------------|-------------|
|                      | NA                                                      | DH   | PE   | AD#  | MU | Mean        |             |
| CPDBt(HD)-2555       | -                                                       | 0.50 | 2.48 | 0.60 | -  | <b>1.19</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | -                                                       | 0.33 | 1.48 | 0.87 | -  | <b>0.89</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | -                                                       | 0.50 | 1.15 | 0.67 | -  | <b>0.77</b> | <b>BETL</b> |
| Suraksha Bt          | -                                                       | 0.83 | 1.67 | 0.80 | -  | <b>1.10</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | -                                                       | 0.33 | 2.00 | 0.27 | -  | <b>0.87</b> | <b>BETL</b> |
| Subiksha Bt          | -                                                       | 0.83 | 1.00 | 0.47 | -  | <b>0.77</b> | <b>BETL</b> |
| Nano Bt              | -                                                       | 0.50 | 2.00 | 0.67 | -  | <b>1.06</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | -                                                       | 1.00 | 1.10 | 0.60 | -  | <b>0.90</b> | <b>BETL</b> |
| CICR Bt 142          | -                                                       | 0.83 | 2.10 | 0.73 | -  | <b>1.22</b> | <b>BETL</b> |
| NH 22012 Bt          | -                                                       | 0.83 | 1.43 | 0.40 | -  | <b>0.89</b> | <b>BETL</b> |
| NH 22003 Bt          | -                                                       | 1.17 | 1.25 | 0.53 | -  | <b>0.98</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | -                                                       | 1.83 | 1.77 | 1.00 | -  | <b>1.53</b> | <b>BETL</b> |
| ADB-791Bt            | -                                                       | 0.00 | 0.98 | 0.73 | -  | <b>0.57</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                                       | 0.83 | 1.66 | 0.87 | -  | <b>1.12</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | -                                                       | 0.67 | 1.75 | 0.80 | -  | <b>1.07</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | -                                                       | 0.50 | 1.33 | 0.33 | -  | <b>0.72</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                                       | 0.67 | 1.50 | 0.40 | -  | <b>0.86</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | -                                                       | 1.83 | 1.33 | 0.27 | -  | <b>1.14</b> | <b>BETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole, # Based on 5 observations



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |      |    |      |    |      | Remark |
|----------------------|-----------------------------------------|------|----|------|----|------|--------|
|                      | NA                                      | DH   | PE | AD   | MU | Mean |        |
| CPDBt(HD)-2555       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt(HD)-2554       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-1 Bt II       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Suraksha Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-3 Bt II       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Subiksha Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| Nano Bt              | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 25-24 Bt II  | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 142          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22012 Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22003 Bt          | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 25-22 Bt II     | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| ADB-791Bt            | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-4 Bt II       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 25-21 Bt II     | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-2 Bt II       | -                                       | 0.00 | -  | 0.00 | -  | 0.00 | BETL   |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Green Boll Damage (Pink bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |       |    |       |    |              | Remark      |
|----------------------|-------------------------------------------------------|-------|----|-------|----|--------------|-------------|
|                      | NA                                                    | DH    | PE | AD    | MU | Mean         |             |
| CPDBt(HD)-2555       | -                                                     | 6.67  | -  | 17.33 | -  | <b>12.00</b> | <b>AETL</b> |
| CPDBt(HD)-2554       | -                                                     | 8.33  | -  | 26.00 | -  | <b>17.17</b> | <b>AETL</b> |
| CCH 25-1 Bt II       | -                                                     | 8.33  | -  | 31.33 | -  | <b>19.83</b> | <b>AETL</b> |
| Suraksha Bt          | -                                                     | 11.67 | -  | 17.33 | -  | <b>14.50</b> | <b>AETL</b> |
| CCH 25-3 Bt II       | -                                                     | 11.67 | -  | 21.33 | -  | <b>16.50</b> | <b>AETL</b> |
| Subiksha Bt          | -                                                     | 5.00  | -  | 17.33 | -  | <b>11.17</b> | <b>AETL</b> |
| Nano Bt              | -                                                     | 10.00 | -  | 20.00 | -  | <b>15.00</b> | <b>AETL</b> |
| CICR Bt 25-24 Bt II  | -                                                     | 10.00 | -  | 21.33 | -  | <b>15.67</b> | <b>AETL</b> |
| CICR Bt 142          | -                                                     | 11.67 | -  | 18.00 | -  | <b>14.84</b> | <b>AETL</b> |
| NH 22012 Bt          | -                                                     | 11.67 | -  | 12.67 | -  | <b>12.17</b> | <b>AETL</b> |
| NH 22003 Bt          | -                                                     | 10.00 | -  | 15.33 | -  | <b>12.67</b> | <b>AETL</b> |
| CICR 25-22 Bt II     | -                                                     | 16.67 | -  | 16.00 | -  | <b>16.34</b> | <b>AETL</b> |
| ADB-791Bt            | -                                                     | 5.00  | -  | 10.00 | -  | <b>7.50</b>  | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | -                                                     | 8.33  | -  | 16.67 | -  | <b>12.50</b> | <b>AETL</b> |
| CCH 25-4 Bt II       | -                                                     | 8.33  | -  | 22.67 | -  | <b>15.50</b> | <b>AETL</b> |
| CICR 25-21 Bt II     | -                                                     | 5.00  | -  | 29.67 | -  | <b>17.34</b> | <b>AETL</b> |
| PKV 081 Bt (ZC Bt-2) | -                                                     | 5.00  | -  | 18.00 | -  | <b>11.50</b> | <b>AETL</b> |
| CCH 25-2 Bt II       | -                                                     | 15.00 | -  | 9.33  | -  | <b>12.17</b> | <b>AETL</b> |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |      |       |    |              | Remark |
|----------------------|----------------------|-------|------|-------|----|--------------|--------|
|                      | NA                   | DH    | PE   | AD    | MU | Mean         |        |
| CPDBt(HD)-2555       | -                    | 4.54  | 6.00 | 10.00 | -  | <b>6.85</b>  |        |
| CPDBt(HD)-2554       | -                    | 8.49  | 9.00 | 14.33 | -  | <b>10.61</b> |        |
| CCH 25-1 Bt II       | -                    | 9.24  | 5.00 | 15.67 | -  | <b>9.97</b>  |        |
| Suraksha Bt          | -                    | 8.48  | 4.00 | 11.67 | -  | <b>8.05</b>  |        |
| CCH 25-3 Bt II       | -                    | 9.56  | 8.00 | 13.33 | -  | <b>10.30</b> |        |
| Subiksha Bt          | -                    | 9.27  | 8.00 | 10.67 | -  | <b>9.31</b>  |        |
| Nano Bt              | -                    | 8.77  | 7.00 | 10.00 | -  | <b>8.59</b>  |        |
| CICR Bt 25-24 Bt II  | -                    | 10.55 | 6.00 | 11.67 | -  | <b>9.41</b>  |        |
| CICR Bt 142          | -                    | 9.41  | 6.00 | 11.00 | -  | <b>8.80</b>  |        |
| NH 22012 Bt          | -                    | 9.35  | 5.00 | 8.33  | -  | <b>7.56</b>  |        |
| NH 22003 Bt          | -                    | 7.76  | 8.00 | 10.67 | -  | <b>8.81</b>  |        |
| CICR 25-22 Bt II     | -                    | 9.01  | 7.00 | 10.67 | -  | <b>8.89</b>  |        |
| ADB-791Bt            | -                    | 8.80  | 7.00 | 9.33  | -  | <b>8.38</b>  |        |
| CICR 23 Bt (ZC Bt-1) | -                    | 8.99  | 6.00 | 10.00 | -  | <b>8.33</b>  |        |
| CCH 25-4 Bt II       | -                    | 12.81 | 5.00 | 13.33 | -  | <b>10.38</b> |        |
| CICR 25-21 Bt II     | -                    | 8.16  | 8.00 | 13.33 | -  | <b>9.83</b>  |        |
| PKV 081 Bt (ZC Bt-2) | -                    | 8.66  | 6.00 | 11.67 | -  | <b>8.78</b>  |        |
| CCH 25-2 Bt II       | -                    | 10.96 | 4.00 | 17.67 | -  | <b>10.88</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |       |      |      |    |             | Remark |
|----------------------|-------------------|-------|------|------|----|-------------|--------|
|                      | NA                | DH    | PE   | AD   | MU | Mean        |        |
| CPDBt(HD)-2555       | -                 | 6.92  | 3.00 | 3.33 | -  | <b>4.42</b> |        |
| CPDBt(HD)-2554       | -                 | 7.25  | 3.00 | 6.67 | -  | <b>5.64</b> |        |
| CCH 25-1 Bt II       | -                 | 7.17  | 2.00 | 6.97 | -  | <b>5.38</b> |        |
| Suraksha Bt          | -                 | 7.67  | 1.00 | 5.17 | -  | <b>4.61</b> |        |
| CCH 25-3 Bt II       | -                 | 11.42 | 3.00 | 8.67 | -  | <b>7.70</b> |        |
| Subiksha Bt          | -                 | 8.08  | 4.00 | 6.17 | -  | <b>6.08</b> |        |
| Nano Bt              | -                 | 9.58  | 2.00 | 2.17 | -  | <b>4.58</b> |        |
| CICR Bt 25-24 Bt II  | -                 | 14.67 | 1.00 | 4.97 | -  | <b>6.88</b> |        |
| CICR Bt 142          | -                 | 8.58  | 2.00 | 3.17 | -  | <b>4.58</b> |        |
| NH 22012 Bt          | -                 | 6.58  | 2.00 | 2.83 | -  | <b>3.80</b> |        |
| NH 22003 Bt          | -                 | 7.50  | 4.00 | 5.00 | -  | <b>5.50</b> |        |
| CICR 25-22 Bt II     | -                 | 10.17 | 3.00 | 4.17 | -  | <b>5.78</b> |        |
| ADB-791Bt            | -                 | 13.67 | 3.00 | 3.50 | -  | <b>6.72</b> |        |
| CICR 23 Bt (ZC Bt-1) | -                 | 12.92 | 2.00 | 3.17 | -  | <b>6.03</b> |        |
| CCH 25-4 Bt II       | -                 | 11.08 | 2.00 | 4.00 | -  | <b>5.69</b> |        |
| CICR 25-21 Bt II     | -                 | 11.92 | 4.00 | 5.33 | -  | <b>7.08</b> |        |
| PKV 081 Bt (ZC Bt-2) | -                 | 10.42 | 2.00 | 3.17 | -  | <b>5.20</b> |        |
| CCH 25-2 Bt II       | -                 | 7.08  | 1.00 | 7.50 | -  | <b>5.19</b> |        |

NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Protected Conditions – Number of sprays for Insect-Pests**

| Name of Entry        | Number of sprays for Insect- pests |      |      |      |      |             | Remark |
|----------------------|------------------------------------|------|------|------|------|-------------|--------|
|                      | NA                                 | DH   | PE   | AD   | MU   | Mean        |        |
| CPDBt(HD)-2555       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CPDBt(HD)-2554       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH 25-1 Bt II       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Suraksha Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH 25-3 Bt II       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Subiksha Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| Nano Bt              | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CICR Bt 25-24 Bt II  | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CICR Bt 142          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NH 22012 Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| NH 22003 Bt          | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CICR 25-22 Bt II     | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| ADB-791Bt            | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CICR 23 Bt (ZC Bt-1) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH 25-4 Bt II       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CICR 25-21 Bt II     | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| PKV 081 Bt (ZC Bt-2) | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |
| CCH 25-2 Bt II       | -                                  | 5.00 | 6.00 | 4.00 | 4.00 | <b>4.75</b> |        |

**NA- Nandyal, DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole**



## Reaction to Diseases

**Table 18(a): Initial Evaluation Trial of Compact Hirsutum Varieties – Rainfed (IET Compact Var RF) under Protected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Protected conditions |    |      |    |      |    |      |    |
|--------|---------|----------------------|-----------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                      | UAS Dharwad                                               |    |      |    |      |    |      |    |
|        |         |                      | ALB                                                       |    | BLB  |    | GM   |    | Rust |    |
|        |         |                      | PDI                                                       | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 7      | 56131   | CPDBt(HD)-2555       | 21.9                                                      | R  | 10.8 | R  | 16.3 | R  | 17.2 | R  |
| 14     | 56132   | CPDBt(HD)-2554       | 22.1                                                      | R  | 10.4 | R  | 17.9 | R  | 18.4 | R  |
| 17     | 56133   | CCH 25-1 Bt II       | 22.2                                                      | R  | 10.1 | R  | 17.7 | R  | 18.2 | R  |
| 1      | 56134   | Suraksha Bt          | 24.1                                                      | R  | 10.1 | R  | 20.1 | R  | 17.2 | R  |
| 5      | 56135   | CCH 25-3 Bt II       | 21.6                                                      | R  | 9.2  | R  | 18.6 | R  | 16.9 | R  |
| 10     | 56136   | Subiksha Bt          | 21.9                                                      | R  | 9.7  | R  | 18.6 | R  | 18.9 | R  |
| 13     | 56137   | Nano Bt              | 21.9                                                      | R  | 9.8  | R  | 18.5 | R  | 19.0 | R  |
| 18     | 56138   | CICR Bt 25-24 Bt II  | 21.3                                                      | R  | 8.6  | R  | 13.3 | R  | 17.4 | R  |
| 12     | 56139   | CICR Bt 142          | 22.0                                                      | R  | 9.8  | R  | 17.0 | R  | 19.1 | R  |
| 9      | 56140   | NH 22012 Bt          | 21.5                                                      | R  | 9.2  | R  | 16.4 | R  | 18.4 | R  |
| 6      | 56141   | NH 22003 Bt          | 21.5                                                      | R  | 9.0  | R  | 18.0 | R  | 18.9 | R  |
| 4      | 56142   | CICR 25-22 Bt II     | 23.4                                                      | R  | 8.9  | R  | 17.3 | R  | 18.2 | R  |
| 2      | 56143   | ADB-791Bt            | 22.0                                                      | R  | 9.0  | R  | 18.0 | R  | 19.2 | R  |
| 8      | 56144   | CICR 23 Bt (ZC Bt-1) | 21.5                                                      | R  | 10.9 | R  | 18.8 | R  | 18.0 | R  |
| 11     | 56145   | CCH 25-4 Bt II       | 22.6                                                      | R  | 11.4 | R  | 16.9 | R  | 19.3 | R  |
| 15     | 56146   | CICR 25-21 Bt II     | 21.5                                                      | R  | 10.2 | R  | 16.3 | R  | 18.1 | R  |
| 3      | 56147   | PKV 081 Bt (ZC Bt-2) | 22.4                                                      | R  | 9.9  | R  | 16.3 | R  | 18.7 | R  |
| 16     | 56148   | CCH 25-2 Bt II       | 22.8                                                      | R  | 10.1 | R  | 17.2 | R  | 17.4 | R  |



## Evaluation under Unprotected Condition for Insect pests

### Reaction to Insect Pest

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions –  
Aphid**

| Name of Entry        | Aphid (Average of 3 leaves/plant) |    |      |      |             | Remark      |
|----------------------|-----------------------------------|----|------|------|-------------|-------------|
|                      | DH                                | PE | AD   | MU   | Mean        |             |
| CPDBt(HD)-2555       | 8.73                              | -  | 1.45 | 1.85 | <b>4.01</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | 9.53                              | -  | 1.62 | 4.74 | <b>5.30</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | 9.24                              | -  | 1.22 | 6.58 | <b>5.68</b> | <b>BETL</b> |
| Suraksha Bt          | 7.44                              | -  | 1.55 | 5.55 | <b>4.85</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | 7.76                              | -  | 1.30 | 4.16 | <b>4.40</b> | <b>BETL</b> |
| Subiksha Bt          | 6.69                              | -  | 2.03 | 3.58 | <b>4.10</b> | <b>BETL</b> |
| Nano Bt              | 8.16                              | -  | 1.94 | 4.27 | <b>4.79</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | 8.76                              | -  | 1.73 | 4.04 | <b>4.84</b> | <b>BETL</b> |
| CICR Bt 142          | 7.64                              | -  | 0.95 | 2.31 | <b>3.63</b> | <b>BETL</b> |
| NH 22012 Bt          | 7.24                              | -  | 1.29 | 3.81 | <b>4.12</b> | <b>BETL</b> |
| NH 22003 Bt          | 8.21                              | -  | 1.29 | 4.04 | <b>4.51</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | 7.04                              | -  | 1.26 | 7.39 | <b>5.23</b> | <b>BETL</b> |
| ADB-791Bt            | 8.20                              | -  | 1.34 | 3.12 | <b>4.22</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 6.02                              | -  | 1.16 | 2.43 | <b>3.20</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | 6.49                              | -  | 0.90 | 7.74 | <b>5.04</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | 9.40                              | -  | 0.70 | 4.39 | <b>4.83</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 8.82                              | -  | 0.54 | 2.08 | <b>3.81</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | 6.62                              | -  | 0.96 | 3.12 | <b>3.57</b> | <b>BETL</b> |
| <b>SP7679</b>        | -                                 | -  | -    | -    | -           |             |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole





**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions –  
Leafhopper**

| Name of Entry        | Leafhopper (Average of 3 leaves/plant) |       |      |      |              | Remark      |
|----------------------|----------------------------------------|-------|------|------|--------------|-------------|
|                      | DH                                     | PE    | AD   | MU   | Mean         |             |
| CPDBt(HD)-2555       | 3.03                                   | 9.33  | 0.67 | 2.70 | <b>3.93</b>  | <b>BETL</b> |
| CPDBt(HD)-2554       | 2.62                                   | 10.67 | 0.44 | 5.06 | <b>4.70</b>  | <b>BETL</b> |
| CCH 25-1 Bt II       | 2.70                                   | 8.67  | 2.44 | 2.53 | <b>4.08</b>  | <b>BETL</b> |
| Suraksha Bt          | 1.84                                   | 9.00  | 0.26 | 2.87 | <b>3.49</b>  | <b>BETL</b> |
| CCH 25-3 Bt II       | 4.40                                   | 10.33 | 0.46 | 3.88 | <b>4.77</b>  | <b>BETL</b> |
| Subiksha Bt          | 3.11                                   | 8.67  | 0.33 | 2.87 | <b>3.74</b>  | <b>BETL</b> |
| Nano Bt              | 3.53                                   | 9.67  | 0.74 | 2.87 | <b>4.20</b>  | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | 2.31                                   | 8.00  | 2.05 | 2.02 | <b>3.60</b>  | <b>BETL</b> |
| CICR Bt 142          | 2.42                                   | 7.67  | 0.71 | 1.18 | <b>3.00</b>  | <b>BETL</b> |
| NH 22012 Bt          | 1.09                                   | 12.67 | 0.38 | 3.38 | <b>4.38</b>  | <b>BETL</b> |
| NH 22003 Bt          | 2.29                                   | 9.00  | 0.80 | 2.70 | <b>3.70</b>  | <b>BETL</b> |
| CICR 25-22 Bt II     | 2.25                                   | 11.00 | 0.82 | 1.52 | <b>3.90</b>  | <b>BETL</b> |
| ADB-791Bt            | 2.67                                   | 9.00  | 0.60 | 2.36 | <b>3.66</b>  | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 3.05                                   | 9.00  | 0.64 | 3.88 | <b>4.14</b>  | <b>BETL</b> |
| CCH 25-4 Bt II       | 3.98                                   | 10.33 | 0.83 | 4.89 | <b>5.01</b>  | <b>BETL</b> |
| CICR 25-21 Bt II     | 3.64                                   | 7.67  | 0.62 | 2.70 | <b>3.66</b>  | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 2.27                                   | 13.67 | 0.80 | 1.69 | <b>4.61</b>  | <b>BETL</b> |
| CCH 25-2 Bt II       | 1.40                                   | 9.00  | 0.55 | 3.38 | <b>3.58</b>  | <b>BETL</b> |
| <b>SP7679</b>        | -                                      | 11.53 | -    | -    | <b>11.53</b> | <b>AETL</b> |

DH- Dharwad, PE- Perambalur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – JIG**

| Name of Entry        | JIG/plant |    |    |    |      | Remark |
|----------------------|-----------|----|----|----|------|--------|
|                      | DH        | PE | AD | MU | Mean |        |
| CPDBt(HD)-2555       | II        | -  | -  | -  | II   |        |
| CPDBt(HD)-2554       | I         | -  | -  | -  | I    |        |
| CCH 25-1 Bt II       | II        | -  | -  | -  | II   |        |
| Suraksha Bt          | I         | -  | -  | -  | I    |        |
| CCH 25-3 Bt II       | II        | -  | -  | -  | II   |        |
| Subiksha Bt          | II        | -  | -  | -  | II   |        |
| Nano Bt              | II        | -  | -  | -  | II   |        |
| CICR Bt 25-24 Bt II  | I         | -  | -  | -  | I    |        |
| CICR Bt 142          | II        | -  | -  | -  | II   |        |
| NH 22012 Bt          | I         | -  | -  | -  | I    |        |
| NH 22003 Bt          | II        | -  | -  | -  | II   |        |
| CICR 25-22 Bt II     | II        | -  | -  | -  | II   |        |
| ADB-791Bt            | II        | -  | -  | -  | II   |        |
| CICR 23 Bt (ZC Bt-1) | II        | -  | -  | -  | II   |        |
| CCH 25-4 Bt II       | II        | -  | -  | -  | II   |        |
| CICR 25-21 Bt II     | II        | -  | -  | -  | II   |        |
| PKV 081 Bt (ZC Bt-2) | I         | -  | -  | -  | I    |        |
| CCH 25-2 Bt II       | I         | -  | -  | -  | I    |        |
| <b>SP7679</b>        | -         | -  | -  | -  | -    |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Thrips**

| Name of Entry        | Thrips (Average of 3 leaves/plant) |      |      |      |             | Remark      |
|----------------------|------------------------------------|------|------|------|-------------|-------------|
|                      | DH                                 | PE   | AD   | MU   | Mean        |             |
| CPDBt(HD)-2555       | 18.33                              | 2.67 | 2.86 | 2.34 | <b>6.55</b> | <b>BETL</b> |
| CPDBt(HD)-2554       | 20.76                              | 2.67 | 2.87 | 0.93 | <b>6.80</b> | <b>BETL</b> |
| CCH 25-1 Bt II       | 15.62                              | 2.33 | 1.39 | 1.73 | <b>5.27</b> | <b>BETL</b> |
| Suraksha Bt          | 17.07                              | 2.67 | 2.67 | 4.38 | <b>6.70</b> | <b>BETL</b> |
| CCH 25-3 Bt II       | 17.22                              | 3.00 | 1.04 | 1.85 | <b>5.78</b> | <b>BETL</b> |
| Subiksha Bt          | 15.91                              | 2.33 | 2.55 | 1.26 | <b>5.51</b> | <b>BETL</b> |
| Nano Bt              | 18.51                              | 3.00 | 2.62 | 1.11 | <b>6.31</b> | <b>BETL</b> |
| CICR Bt 25-24 Bt II  | 20.36                              | 1.33 | 0.98 | 3.73 | <b>6.60</b> | <b>BETL</b> |
| CICR Bt 142          | 18.47                              | 3.33 | 2.15 | 0.46 | <b>6.10</b> | <b>BETL</b> |
| NH 22012 Bt          | 18.56                              | 1.33 | 2.02 | 2.65 | <b>6.14</b> | <b>BETL</b> |
| NH 22003 Bt          | 16.93                              | 3.67 | 1.55 | 2.28 | <b>6.11</b> | <b>BETL</b> |
| CICR 25-22 Bt II     | 17.62                              | 1.67 | 1.72 | 3.15 | <b>6.04</b> | <b>BETL</b> |
| ADB-791Bt            | 15.53                              | 4.00 | 2.03 | 2.68 | <b>6.06</b> | <b>BETL</b> |
| CICR 23 Bt (ZC Bt-1) | 17.78                              | 2.33 | 1.84 | 0.22 | <b>5.54</b> | <b>BETL</b> |
| CCH 25-4 Bt II       | 25.36                              | 2.67 | 1.88 | 1.63 | <b>7.88</b> | <b>BETL</b> |
| CICR 25-21 Bt II     | 21.44                              | 3.00 | 2.06 | 2.78 | <b>7.32</b> | <b>BETL</b> |
| PKV 081 Bt (ZC Bt-2) | 18.04                              | 3.67 | 2.02 | 3.36 | <b>6.77</b> | <b>BETL</b> |
| CCH 25-2 Bt II       | 17.00                              | 1.67 | 2.01 | 0.37 | <b>5.26</b> | <b>BETL</b> |
| <b>SP7679</b>        | -                                  | 2.33 | -    | -    | <b>2.33</b> | <b>BETL</b> |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Whitefly**

| Name of Entry        | Whitefly (Average of 3 leaves/plant) |      |      |      |             | Remark |
|----------------------|--------------------------------------|------|------|------|-------------|--------|
|                      | DH                                   | PE   | AD   | MU   | Mean        |        |
| CPDBt(HD)-2555       | 1.04                                 | 2.00 | 0.69 | 0.69 | <b>1.11</b> | BETL   |
| CPDBt(HD)-2554       | 0.67                                 | 1.67 | 0.18 | 0.53 | <b>0.76</b> | BETL   |
| CCH 25-1 Bt II       | 0.79                                 | 1.33 | 0.50 | 0.53 | <b>0.79</b> | BETL   |
| Suraksha Bt          | 0.89                                 | 1.67 | 0.51 | 0.58 | <b>0.91</b> | BETL   |
| CCH 25-3 Bt II       | 0.87                                 | 1.33 | 0.40 | 0.37 | <b>0.74</b> | BETL   |
| Subiksha Bt          | 1.08                                 | 1.67 | 0.15 | 0.53 | <b>0.86</b> | BETL   |
| Nano Bt              | 1.17                                 | 2.00 | 0.48 | 0.48 | <b>1.03</b> | BETL   |
| CICR Bt 25-24 Bt II  | 0.79                                 | 2.00 | 0.34 | 0.63 | <b>0.94</b> | BETL   |
| CICR Bt 142          | 1.36                                 | 1.33 | 0.64 | 0.63 | <b>0.99</b> | BETL   |
| NH 22012 Bt          | 1.09                                 | 1.67 | 0.38 | 1.00 | <b>1.04</b> | BETL   |
| NH 22003 Bt          | 1.22                                 | 1.67 | 0.17 | 0.69 | <b>0.94</b> | BETL   |
| CICR 25-22 Bt II     | 0.79                                 | 1.67 | 0.12 | 0.90 | <b>0.87</b> | BETL   |
| ADB-791Bt            | 0.90                                 | 1.67 | 0.15 | 0.58 | <b>0.82</b> | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.72                                 | 1.00 | 0.13 | 0.53 | <b>0.60</b> | BETL   |
| CCH 25-4 Bt II       | 1.02                                 | 2.00 | 1.08 | 0.37 | <b>1.12</b> | BETL   |
| CICR 25-21 Bt II     | 0.70                                 | 1.00 | 0.22 | 0.69 | <b>0.65</b> | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.80                                 | 2.00 | 0.20 | 0.53 | <b>0.88</b> | BETL   |
| CCH 25-2 Bt II       | 0.58                                 | 2.00 | 0.22 | 0.26 | <b>0.77</b> | BETL   |
| <b>SP7679</b>        | -                                    | 1.66 | -    | -    | <b>1.66</b> | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Natural Enemies**

| Name of Entry        | Natural Enemies (No./plant) |      |      |    |             | Remark |
|----------------------|-----------------------------|------|------|----|-------------|--------|
|                      | DH                          | PE   | AD   | MU | Mean        |        |
| CPDBt(HD)-2555       | 0.85                        | 0.00 | 0.33 | -  | <b>0.39</b> |        |
| CPDBt(HD)-2554       | 0.98                        | 0.00 | 0.13 | -  | <b>0.37</b> |        |
| CCH 25-1 Bt II       | 1.07                        | 0.00 | 0.20 | -  | <b>0.42</b> |        |
| Suraksha Bt          | 1.71                        | 0.00 | 0.07 | -  | <b>0.59</b> |        |
| CCH 25-3 Bt II       | 1.09                        | 0.00 | 0.00 | -  | <b>0.36</b> |        |
| Subiksha Bt          | 1.09                        | 0.00 | 0.34 | -  | <b>0.48</b> |        |
| Nano Bt              | 0.78                        | 0.00 | 0.07 | -  | <b>0.28</b> |        |
| CICR Bt 25-24 Bt II  | 1.67                        | 0.00 | 0.07 | -  | <b>0.58</b> |        |
| CICR Bt 142          | 1.44                        | 0.00 | 0.13 | -  | <b>0.52</b> |        |
| NH 22012 Bt          | 1.16                        | 0.00 | 0.00 | -  | <b>0.39</b> |        |
| NH 22003 Bt          | 1.60                        | 0.00 | 0.07 | -  | <b>0.56</b> |        |
| CICR 25-22 Bt II     | 1.51                        | 0.00 | 0.20 | -  | <b>0.57</b> |        |
| ADB-791Bt            | 0.93                        | 0.00 | 0.27 | -  | <b>0.40</b> |        |
| CICR 23 Bt (ZC Bt-1) | 0.96                        | 0.00 | 0.00 | -  | <b>0.32</b> |        |
| CCH 25-4 Bt II       | 1.42                        | 0.00 | 0.26 | -  | <b>0.56</b> |        |
| CICR 25-21 Bt II     | 1.30                        | 0.00 | 0.27 | -  | <b>0.52</b> |        |
| PKV 081 Bt (ZC Bt-2) | 0.91                        | 0.00 | 0.13 | -  | <b>0.35</b> |        |
| CCH 25-2 Bt II       | 0.82                        | 0.00 | 0.00 | -  | <b>0.27</b> |        |
| <b>SP7679</b>        | -                           | 0.00 | -    | -  | <b>0.00</b> |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – *Helicoverpa armigera***

| Name of Entry        | <i>Helicoverpa armigera</i> (No. /5 plants) |      |      |    |      | Remark |
|----------------------|---------------------------------------------|------|------|----|------|--------|
|                      | DH                                          | PE   | AD   | MU | Mean |        |
| CPDBt(HD)-2555       | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt(HD)-2554       | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-1 Bt II       | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Suraksha Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-3 Bt II       | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Subiksha Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Nano Bt              | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 25-24 Bt II  | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 142          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22012 Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22003 Bt          | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-22 Bt II     | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ADB-791Bt            | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-4 Bt II       | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-21 Bt II     | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-2 Bt II       | 0.00                                        | 0.00 | 0.00 | -  | 0.00 | BETL   |
| <b>SP7679</b>        | -                                           | 0.00 | -    | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Spotted/Spiny Bollworms**

| Name of Entry        | Spotted Bollworms (No. /5 plants) |      |      |    |      | Remark |
|----------------------|-----------------------------------|------|------|----|------|--------|
|                      | DH                                | PE   | AD   | MU | Mean |        |
| CPDBt(HD)-2555       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt(HD)-2554       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-1 Bt II       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Suraksha Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-3 Bt II       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Subiksha Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Nano Bt              | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 25-24 Bt II  | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 142          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22012 Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22003 Bt          | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-22 Bt II     | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ADB-791Bt            | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-4 Bt II       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-21 Bt II     | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-2 Bt II       | 0.00                              | 0.00 | 0.00 | -  | 0.00 | BETL   |
| <b>SP7679</b>        | -                                 | 0.00 | -    | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – *Spodoptera litura***

| Name of Entry        | <i>Spodoptera litura</i> (No. /5 plants) |      |      |    |      | Remark |
|----------------------|------------------------------------------|------|------|----|------|--------|
|                      | DH                                       | PE   | AD   | MU | Mean |        |
| CPDBt(HD)-2555       | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CPDBt(HD)-2554       | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-1 Bt II       | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Suraksha Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-3 Bt II       | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Subiksha Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| Nano Bt              | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 25-24 Bt II  | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 142          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22012 Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| NH 22003 Bt          | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-22 Bt II     | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| ADB-791Bt            | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-4 Bt II       | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CICR 25-21 Bt II     | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| CCH 25-2 Bt II       | 0.00                                     | 0.00 | 0.00 | -  | 0.00 | BETL   |
| <b>SP7679</b>        | -                                        | 0.00 | -    | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Pink Bollworm**

| Name of Entry        | Pink Bollworm Larva (No./10 bolls destructive sampling) |      |      |    |      | Remark |
|----------------------|---------------------------------------------------------|------|------|----|------|--------|
|                      | DH                                                      | PE   | AD#  | MU | Mean |        |
| CPDBt(HD)-2555       | 1.17                                                    | 2.22 | 0.60 | -  | 1.33 | AETL   |
| CPDBt(HD)-2554       | 2.33                                                    | 1.55 | 0.40 | -  | 1.43 | AETL   |
| CCH 25-1 Bt II       | 1.33                                                    | 1.37 | 1.20 | -  | 1.30 | AETL   |
| Suraksha Bt          | 1.67                                                    | 1.89 | 0.40 | -  | 1.32 | AETL   |
| CCH 25-3 Bt II       | 2.17                                                    | 1.10 | 0.60 | -  | 1.29 | AETL   |
| Subiksha Bt          | 1.67                                                    | 2.60 | 0.20 | -  | 1.49 | AETL   |
| Nano Bt              | 2.17                                                    | 1.60 | 0.20 | -  | 1.32 | AETL   |
| CICR Bt 25-24 Bt II  | 2.00                                                    | 1.27 | 0.60 | -  | 1.29 | AETL   |
| CICR Bt 142          | 1.50                                                    | 1.79 | 0.40 | -  | 1.23 | AETL   |
| NH 22012 Bt          | 1.17                                                    | 2.12 | 0.80 | -  | 1.36 | AETL   |
| NH 22003 Bt          | 1.50                                                    | 1.12 | 1.40 | -  | 1.34 | AETL   |
| CICR 25-22 Bt II     | 4.17                                                    | 2.12 | 1.20 | -  | 2.50 | AETL   |
| ADB-791Bt            | 1.50                                                    | 1.22 | 1.20 | -  | 1.31 | AETL   |
| CICR 23 Bt (ZC Bt-1) | 1.83                                                    | 1.62 | 1.20 | -  | 1.55 | AETL   |
| CCH 25-4 Bt II       | 2.17                                                    | 1.45 | 0.60 | -  | 1.41 | AETL   |
| CICR 25-21 Bt II     | 2.00                                                    | 1.37 | 0.40 | -  | 1.26 | AETL   |
| PKV 081 Bt (ZC Bt-2) | 1.50                                                    | 1.78 | 0.00 | -  | 1.09 | AETL   |
| CCH 25-2 Bt II       | 4.00                                                    | 1.87 | 0.40 | -  | 2.09 | AETL   |
| <b>SP7679</b>        | -                                                       | 1.45 | -    | -  | 1.45 | AETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole, # Based on 5 observations



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage due to ABW/SBW/TC**

| Name of Entry        | Green Boll Damage (%) due to ABW/SBW/TC |    |      |    |      | Remark |
|----------------------|-----------------------------------------|----|------|----|------|--------|
|                      | DH                                      | PE | AD   | MU | Mean |        |
| CPDBt(HD)-2555       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CPDBt(HD)-2554       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-1 Bt II       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Suraksha Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-3 Bt II       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Subiksha Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| Nano Bt              | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 25-24 Bt II  | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CICR Bt 142          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22012 Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| NH 22003 Bt          | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 25-22 Bt II     | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| ADB-791Bt            | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 23 Bt (ZC Bt-1) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-4 Bt II       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CICR 25-21 Bt II     | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| PKV 081 Bt (ZC Bt-2) | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| CCH 25-2 Bt II       | 0.00                                    | -  | 0.00 | -  | 0.00 | BETL   |
| <b>SP7679</b>        | -                                       | -  | -    | -  | 0.00 | BETL   |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Green Boll Damage (Pink Bollworm)**

| Name of Entry        | Green Boll Damage (%) / 10 bolls destructive sampling |    |       |    |       | Remark |
|----------------------|-------------------------------------------------------|----|-------|----|-------|--------|
|                      | DH                                                    | PE | AD    | MU | Mean  |        |
| CPDBt(HD)-2555       | 20.00                                                 | -  | 28.00 | -  | 24.00 | AETL   |
| CPDBt(HD)-2554       | 19.17                                                 | -  | 32.00 | -  | 25.59 | AETL   |
| CCH 25-1 Bt II       | 13.33                                                 | -  | 28.00 | -  | 20.67 | AETL   |
| Suraksha Bt          | 20.00                                                 | -  | 24.00 | -  | 22.00 | AETL   |
| CCH 25-3 Bt II       | 20.83                                                 | -  | 32.00 | -  | 26.42 | AETL   |
| Subiksha Bt          | 13.33                                                 | -  | 28.00 | -  | 20.67 | AETL   |
| Nano Bt              | 14.50                                                 | -  | 20.00 | -  | 17.25 | AETL   |
| CICR Bt 25-24 Bt II  | 11.67                                                 | -  | 22.00 | -  | 16.84 | AETL   |
| CICR Bt 142          | 15.00                                                 | -  | 30.00 | -  | 22.50 | AETL   |
| NH 22012 Bt          | 16.67                                                 | -  | 24.00 | -  | 20.34 | AETL   |
| NH 22003 Bt          | 13.33                                                 | -  | 30.00 | -  | 21.67 | AETL   |
| CICR 25-22 Bt II     | 25.00                                                 | -  | 26.00 | -  | 25.50 | AETL   |
| ADB-791Bt            | 11.67                                                 | -  | 34.00 | -  | 22.84 | AETL   |
| CICR 23 Bt (ZC Bt-1) | 11.67                                                 | -  | 22.00 | -  | 16.84 | AETL   |
| CCH 25-4 Bt II       | 16.67                                                 | -  | 30.00 | -  | 23.34 | AETL   |
| CICR 25-21 Bt II     | 15.00                                                 | -  | 28.00 | -  | 21.50 | AETL   |
| PKV 081 Bt (ZC Bt-2) | 13.33                                                 | -  | 26.00 | -  | 19.67 | AETL   |
| CCH 25-2 Bt II       | 25.00                                                 | -  | 28.00 | -  | 26.50 | AETL   |
| <b>SP7679</b>        | -                                                     | -  | -     | -  | -     | -      |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Open Boll Damage**

| Name of Entry        | Open Boll Damage (%) |       |       |    |              | Remark |
|----------------------|----------------------|-------|-------|----|--------------|--------|
|                      | DH                   | PE    | AD    | MU | Mean         |        |
| CPDBt(HD)-2555       | 8.11                 | 8.00  | 15.00 | -  | <b>10.37</b> |        |
| CPDBt(HD)-2554       | 13.92                | 12.00 | 20.00 | -  | <b>15.31</b> |        |
| CCH 25-1 Bt II       | 14.57                | 7.00  | 15.00 | -  | <b>12.19</b> |        |
| Suraksha Bt          | 20.14                | 6.00  | 12.00 | -  | <b>12.71</b> |        |
| CCH 25-3 Bt II       | 15.20                | 13.00 | 15.00 | -  | <b>14.40</b> |        |
| Subiksha Bt          | 13.28                | 12.00 | 15.00 | -  | <b>13.43</b> |        |
| Nano Bt              | 17.31                | 10.00 | 10.00 | -  | <b>12.44</b> |        |
| CICR Bt 25-24 Bt II  | 18.03                | 9.00  | 12.00 | -  | <b>13.01</b> |        |
| CICR Bt 142          | 14.98                | 8.00  | 15.00 | -  | <b>12.66</b> |        |
| NH 22012 Bt          | 11.84                | 8.00  | 15.00 | -  | <b>11.61</b> |        |
| NH 22003 Bt          | 13.26                | 10.00 | 20.00 | -  | <b>14.42</b> |        |
| CICR 25-22 Bt II     | 12.69                | 9.00  | 15.00 | -  | <b>12.23</b> |        |
| ADB-791Bt            | 12.78                | 9.00  | 20.00 | -  | <b>13.93</b> |        |
| CICR 23 Bt (ZC Bt-1) | 11.38                | 8.00  | 15.00 | -  | <b>11.46</b> |        |
| CCH 25-4 Bt II       | 21.17                | 7.00  | 20.00 | -  | <b>16.06</b> |        |
| CICR 25-21 Bt II     | 18.46                | 10.00 | 15.00 | -  | <b>14.49</b> |        |
| PKV 081 Bt (ZC Bt-2) | 10.21                | 9.00  | 15.00 | -  | <b>11.40</b> |        |
| CCH 25-2 Bt II       | 14.25                | 7.00  | 12.00 | -  | <b>11.08</b> |        |
| <b>SP7679</b>        | -                    | 7.00  | -     | -  | <b>7.00</b>  |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole

**Table: Initial Variety (Compact) trial in South Zone under Unprotected Conditions – Locule Damage**

| Name of Entry        | Locule Damage (%) |      |       |    |              | Remark |
|----------------------|-------------------|------|-------|----|--------------|--------|
|                      | DH                | PE   | AD    | MU | Mean         |        |
| CPDBt(HD)-2555       | 11.08             | 4.00 | 20.50 | -  | <b>11.86</b> |        |
| CPDBt(HD)-2554       | 15.75             | 5.00 | 23.00 | -  | <b>14.58</b> |        |
| CCH 25-1 Bt II       | 13.67             | 3.00 | 20.50 | -  | <b>12.39</b> |        |
| Suraksha Bt          | 16.17             | 2.00 | 19.50 | -  | <b>12.56</b> |        |
| CCH 25-3 Bt II       | 21.67             | 4.00 | 24.50 | -  | <b>16.72</b> |        |
| Subiksha Bt          | 13.58             | 4.00 | 17.50 | -  | <b>11.69</b> |        |
| Nano Bt              | 14.92             | 3.00 | 14.00 | -  | <b>10.64</b> |        |
| CICR Bt 25-24 Bt II  | 25.92             | 2.00 | 15.50 | -  | <b>14.47</b> |        |
| CICR Bt 142          | 16.08             | 2.00 | 16.50 | -  | <b>11.53</b> |        |
| NH 22012 Bt          | 12.08             | 3.00 | 16.00 | -  | <b>10.36</b> |        |
| NH 22003 Bt          | 16.67             | 4.00 | 25.00 | -  | <b>15.22</b> |        |
| CICR 25-22 Bt II     | 17.00             | 3.00 | 24.00 | -  | <b>14.67</b> |        |
| ADB-791Bt            | 24.08             | 4.00 | 21.50 | -  | <b>16.53</b> |        |
| CICR 23 Bt (ZC Bt-1) | 22.08             | 3.00 | 13.00 | -  | <b>12.69</b> |        |
| CCH 25-4 Bt II       | 17.88             | 3.00 | 17.00 | -  | <b>12.63</b> |        |
| CICR 25-21 Bt II     | 20.67             | 4.00 | 18.00 | -  | <b>14.22</b> |        |
| PKV 081 Bt (ZC Bt-2) | 18.75             | 3.00 | 17.00 | -  | <b>12.92</b> |        |
| CCH 25-2 Bt II       | 11.92             | 2.00 | 19.50 | -  | <b>11.14</b> |        |
| <b>SP7679</b>        | -                 | 3.00 | -     | -  | <b>3.00</b>  |        |

DH- Dharwad, PE- Peramblur, AD- Adilabad, MU- Mudhole



## Reaction to Diseases

**Table 18(b): Initial Evaluation Trial of Compact Hirsutum Varieties – Rainfed (IET Compact Var RF) Unprotected conditions**

| Code-I | Code-II | Entries              | Average PDI & Disease Reaction (DR): Unprotected conditions |    |      |    |      |    |      |    |
|--------|---------|----------------------|-------------------------------------------------------------|----|------|----|------|----|------|----|
|        |         |                      | UAS Dharwad                                                 |    |      |    |      |    |      |    |
|        |         |                      | ALB                                                         |    | BLB  |    | GM   |    | Rust |    |
|        |         |                      | PDI                                                         | DR | PDI  | DR | PDI  | DR | PDI  | DR |
| 7      | 56131   | CPDBt(HD)-2555       | 25.3                                                        | MR | 10.0 | R  | 13.9 | R  | 20.3 | R  |
| 14     | 56132   | CPDBt(HD)-2554       | 25.1                                                        | MR | 11.8 | R  | 14.9 | R  | 19.8 | R  |
| 17     | 56133   | CCH 25-1 Bt II       | 26.1                                                        | MR | 10.9 | R  | 15.9 | R  | 19.4 | R  |
| 1      | 56134   | Suraksha Bt          | 24.5                                                        | R  | 10.4 | R  | 13.8 | R  | 16.3 | R  |
| 5      | 56135   | CCH 25-3 Bt II       | 24.5                                                        | R  | 11.7 | R  | 15.6 | R  | 19.3 | R  |
| 10     | 56136   | Subiksha Bt          | 26.1                                                        | MR | 12.4 | R  | 16.2 | R  | 19.3 | R  |
| 13     | 56137   | Nano Bt              | 25.6                                                        | MR | 12.3 | R  | 15.8 | R  | 18.7 | R  |
| 18     | 56138   | CICR Bt 25-24 Bt II  | 26.4                                                        | MR | 11.9 | R  | 17.4 | R  | 17.9 | R  |
| 12     | 56139   | CICR Bt 142          | 25.2                                                        | MR | 11.2 | R  | 16.2 | R  | 19.1 | R  |
| 9      | 56140   | NH 22012 Bt          | 25.1                                                        | MR | 11.8 | R  | 15.7 | R  | 19.1 | R  |
| 6      | 56141   | NH 22003 Bt          | 25.9                                                        | MR | 11.9 | R  | 16.0 | R  | 18.7 | R  |
| 4      | 56142   | CICR 25-22 Bt II     | 25.4                                                        | MR | 11.2 | R  | 17.4 | R  | 17.7 | R  |
| 2      | 56143   | ADB-791Bt            | 26.3                                                        | MR | 11.5 | R  | 14.1 | R  | 19.3 | R  |
| 8      | 56144   | CICR 23 Bt (ZC Bt-1) | 27.0                                                        | MR | 11.1 | R  | 18.3 | R  | 19.8 | R  |
| 11     | 56145   | CCH 25-4 Bt II       | 25.1                                                        | MR | 11.5 | R  | 16.2 | R  | 16.6 | R  |
| 15     | 56146   | CICR 25-21 Bt II     | 26.6                                                        | MR | 11.4 | R  | 14.1 | R  | 20.7 | R  |
| 3      | 56147   | PKV 081 Bt (ZC Bt-2) | 25.8                                                        | MR | 13.1 | R  | 15.5 | R  | 21.0 | R  |
| 16     | 56148   | CCH 25-2 Bt II       | 26.0                                                        | MR | 11.9 | R  | 18.1 | R  | 22.1 | R  |





## Cry Protein Expression: Irrigated Trials

**Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Coimbatore (2025-26)**

| Code-II | Entry                       | Leaf |      |      | Square |      | Bolls |      |
|---------|-----------------------------|------|------|------|--------|------|-------|------|
|         |                             | 30D  | 60D  | 90D  | 60D    | 90D  | 90D   | 120D |
| 55061   | KCH 9221 BGII               | 3.23 | 7.90 | 9.32 | 3.79   | 4.03 | 4.40  | 3.07 |
| 55062   | Core 102                    | 1.24 | 5.26 | 5.09 | 2.19   | 3.01 | 3.52  | 1.23 |
| 55063   | KCH 9225 BGII               | 2.87 | 7.90 | 8.02 | 2.78   | 4.48 | 4.87  | 1.84 |
| 55064   | NBC 21 BGII                 | 3.22 | 7.66 | 7.50 | 3.50   | 3.08 | 3.71  | 2.73 |
| 55065   | DC 5105 BGII                | 1.88 | 5.34 | 6.52 | 2.20   | 2.81 | 4.49  | 2.75 |
| 55066   | KCH 9222 BGII               | 3.32 | 7.08 | 8.28 | 3.62   | 3.94 | 5.38  | 2.60 |
| 55067   | C 9339 BGII                 | 3.00 | 7.40 | 7.54 | 2.54   | 3.28 | 5.40  | 2.85 |
| 55068   | <b>VSCH 369 BGII (ZC 2)</b> | 3.08 | 7.10 | 9.53 | 3.41   | 4.92 | 7.62  | 1.79 |
| 55069   | KCH 9223 BGII               | 3.79 | 9.43 | 6.34 | 4.18   | 4.90 | 6.79  | 2.94 |
| 55070   | SS 459 BG II                | 1.80 | 6.64 | 7.27 | 2.89   | 4.04 | 5.60  | 1.34 |
| 55071   | VSCH 372 BGII               | 2.21 | 6.16 | 7.64 | 2.50   | 3.70 | 5.70  | 2.31 |
| 55072   | US 717 BGII                 | 2.72 | 4.21 | 5.60 | 3.03   | 2.90 | 5.11  | 1.41 |
| 55073   | RCH 1016 BGII               | 3.43 | 4.59 | 6.83 | 3.02   | 3.38 | 5.58  | 2.46 |
| 55074   | RCH 1026 BG II              | 3.02 | 4.59 | 4.64 | 2.66   | 2.35 | 5.28  | 4.39 |
| 55075   | DLCH-9 Bt II                | 2.94 | 4.17 | 6.00 | 3.08   | 2.73 | 4.81  | 3.27 |
| 55076   | <b>NBC 1821 BGII (ZC 1)</b> | 2.44 | 3.69 | 7.61 | 2.82   | 3.65 | 7.25  | 2.15 |
| 55077   | 25D181 BGII                 | 3.23 | 5.49 | 8.04 | 3.76   | 2.83 | 5.95  | 3.64 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Coimbatore (2025-26)**

| Code-II | Entry                       | Leaf  |       |       | Square |       | Bolls |       |
|---------|-----------------------------|-------|-------|-------|--------|-------|-------|-------|
|         |                             | 30D   | 60D   | 90D   | 60D    | 90D   | 90D   | 120D  |
| 55061   | KCH 9221 BGII               | 162.2 | 219.2 | 397.7 | 389.3  | 378.8 | 243.9 | 328.6 |
| 55062   | Core 102                    | 224.9 | 233.3 | 396.8 | 306.9  | 342.9 | 146.4 | 512.4 |
| 55063   | KCH 9225 BGII               | 169.0 | 184.2 | 359.5 | 292.3  | 300.8 | 370.2 | 548.9 |
| 55064   | NBC 21 BGII                 | 244.5 | 233.4 | 389.3 | 234.3  | 273.1 | 125.1 | 545.9 |
| 55065   | DC 5105 BGII                | 169.4 | 208.7 | 467.6 | 240.0  | 231.9 | 186.2 | 398.3 |
| 55066   | KCH 9222 BGII               | 128.6 | 181.0 | 309.5 | 274.1  | 315.0 | 153.9 | 445.6 |
| 55067   | C 9339 BGII                 | 146.5 | 188.7 | 429.4 | 220.4  | 234.9 | 138.2 | 511.5 |
| 55068   | <b>VSCH 369 BGII (ZC 2)</b> | 190.0 | 246.0 | 395.7 | 414.5  | 412.7 | 251.9 | 469.1 |
| 55069   | KCH 9223 BGII               | 214.4 | 255.4 | 345.2 | 342.6  | 432.3 | 264.6 | 587.5 |
| 55070   | SS 459 BG II                | 141.4 | 293.1 | 277.3 | 330.9  | 436.9 | 263.5 | 488.6 |
| 55071   | VSCH 372 BGII               | 502.5 | 603.1 | 510.1 | 728.3  | 839.6 | 309.3 | 590.1 |
| 55072   | US 717 BGII                 | 154.1 | 265.5 | 348.2 | 344.3  | 452.4 | 198.5 | 479.6 |
| 55073   | RCH 1016 BGII               | 421.5 | 438.0 | 725.5 | 548.3  | 920.6 | 289.3 | 474.1 |
| 55074   | RCH 1026 BG II              | 388.9 | 498.3 | 555.9 | 628.4  | 743.0 | 343.3 | 586.9 |
| 55075   | DLCH-9 Bt II                | 116.5 | 232.2 | 252.4 | 243.7  | 296.8 | 193.6 | 495.4 |
| 55076   | <b>NBC 1821 BGII (ZC 1)</b> | 148.6 | 236.8 | 371.2 | 302.3  | 460.0 | 221.1 | 325.9 |
| 55077   | 25D181 BGII                 | 200.9 | 253.3 | 327.2 | 479.9  | 799.2 | 312.7 | 531.8 |



**Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Coimbatore (2025-26)**

| Code-II | Entry                | Leaf |      |      | Square |      | Bolls |      |
|---------|----------------------|------|------|------|--------|------|-------|------|
|         |                      | 30D  | 60D  | 90D  | 60D    | 90D  | 90D   | 120D |
| 55091   | VSCH 369 BGII (ZC 2) | 6.90 | 5.79 | 8.27 | 3.33   | 3.52 | 5.93  | 4.18 |
| 55092   | NBC 1821 BGII (ZC 1) | 5.58 | 4.32 | 7.18 | 2.94   | 3.20 | 7.06  | 2.60 |
| 55093   | Indam 2412 BGII      | 5.71 | 4.37 | 4.77 | 3.47   | 3.56 | 5.75  | 3.61 |
| 55094   | ACH 41-2 BGII        | 5.77 | 5.15 | 3.74 | 2.80   | 3.04 | 5.32  | 1.56 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Coimbatore (2025-26)**

| Code-II | Entry                | Leaf  |       |       | Square |       | Bolls |       |
|---------|----------------------|-------|-------|-------|--------|-------|-------|-------|
|         |                      | 30D   | 60D   | 90D   | 60D    | 90D   | 90D   | 120D  |
| 55091   | VSCH 369 BGII (ZC 2) | 245.8 | 204.8 | 228.8 | 339.0  | 559.4 | 294.5 | 564.4 |
| 55092   | NBC 1821 BGII (ZC 1) | 270.8 | 262.5 | 297.9 | 328.0  | 337.3 | 231.9 | 420.2 |
| 55093   | Indam 2412 BGII      | 223.8 | 193.6 | 223.6 | 320.4  | 470.9 | 198.6 | 590.5 |
| 55094   | ACH 41-2 BGII        | 262.4 | 202.7 | 307.9 | 243.4  | 359.8 | 262.6 | 356.3 |

**Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Coimbatore (2025-26)**

| Code-II | Entry                | Leaf |      |       | Square |      | Bolls |      |
|---------|----------------------|------|------|-------|--------|------|-------|------|
|         |                      | 30D  | 60D  | 90D   | 60D    | 90D  | 90D   | 120D |
| 55161   | Local Check          | 0.93 | 0.42 | --    | 0.72   | --   | 3.80  |      |
| 55162   | Lam Bt 2208 BG II    | 5.40 | 3.19 | 4.22  | 2.43   | 2.98 | 7.77  | 2.89 |
| 55163   | Suraksha (Non-Bt ZC) | 4.94 | 4.34 | 4.97  | 2.47   | 1.84 | 2.03  | 1.87 |
| 55164   | CICR 23 Bt (Bt ZC)   | 5.54 | 4.82 | 4.66  | 2.76   | 3.23 | 6.03  | 3.29 |
| 55165   | WGCV Bt 28           | 7.11 | 4.48 | 10.11 | 3.26   | 3.88 | 6.23  | 2.19 |
| 55166   | ARCV 99 BGII         | 4.55 | 4.91 | 4.41  | 2.83   | 2.60 | 2.05  | 1.20 |
| 55167   | ARCV 111 BGII        | 5.72 | 2.66 | 5.73  | 1.76   | 2.30 | 5.39  | 1.33 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Coimbatore (2025-26)**

| Code-II | Entry                | Leaf  |       |       | Square |       | Bolls |       |
|---------|----------------------|-------|-------|-------|--------|-------|-------|-------|
|         |                      | 30D   | 60D   | 90D   | 60D    | 90D   | 90D   | 120D  |
| 55161   | Local Check          | --    | --    | --    | --     | --    | --    | --    |
| 55162   | Lam Bt 2208 BG II    | 356.0 | 534.2 | 790.0 | 581.7  | 941.2 | 364.3 | 584.0 |
| 55163   | Suraksha (Non-Bt ZC) | 169.7 | 274.9 | 281.3 | 321.8  | 29.4  | --    | 166.1 |
| 55164   | CICR 23 Bt (Bt ZC)   | --    | --    | --    | --     | --    | --    | --    |
| 55165   | WGCV Bt 28           | --    | --    | --    | --     | --    | --    | --    |
| 55166   | ARCV 99 BGII         | 512.9 | 264.7 | 548.9 | 368.1  | 807.1 | 181.6 | 466.0 |
| 55167   | ARCV 111 BGII        | 237.6 | 210.8 | 192.1 | 119.6  | --    | 326.7 | 92.2  |



**Cry1Ac Protein Quantity (ppm or µg/g dwt) in CET- HXB trial at Coimbatore (2025-26)**

| Code-II | Entry                       | Leaf |      |      | Square |      | Bolls |      |
|---------|-----------------------------|------|------|------|--------|------|-------|------|
|         |                             | 30D  | 60D  | 90D  | 60D    | 90D  | 90D   | 120D |
| 55101   | KSP 5253 (HXB) BGII         | 3.05 | 5.60 | 7.72 | 4.08   | 3.65 | 4.22  | 3.34 |
| 55102   | ACHB 2111 BGII              | 2.68 | 4.83 | 5.05 | 3.81   | 3.35 | 3.88  | 2.94 |
| 55103   | US 781 BGII                 | 2.94 | 4.07 | 5.07 | 2.79   | 3.35 | 4.47  | 2.56 |
| 55104   | GBCH 2002 BGII              | 2.69 | 3.80 | 7.80 | 2.80   | 4.55 | 5.45  | 1.95 |
| 55105   | CHB 1 BG II                 | 2.30 | 3.61 | 7.11 | 2.43   | 3.91 | 5.19  | 2.37 |
| 55106   | PGCHB 64 BGII               | 3.20 | 5.07 | 5.42 | 3.49   | 3.01 | 3.56  | 3.12 |
| 55107   | <b>MRC 7918 BG II (ZC1)</b> | 3.43 | 3.42 | 6.02 | 2.88   | 2.67 | 4.22  | 3.27 |
| 55108   | DACHB 93S39 BGII            | 2.60 | 3.99 | 5.81 | 2.77   | 3.04 | 4.51  | 3.96 |
| 55109   | <b>MRC 6918 BG II (ZC2)</b> | 2.75 | 4.48 | 6.97 | 3.35   | 2.69 | 3.37  | 1.99 |
| 55110   | NCHB 5799 Bt II             | 1.80 | 2.34 | 4.49 | 2.22   | 2.61 | 5.20  | 4.39 |
| 55111   | SP 7710 BGII                | 3.84 | 3.32 | 6.89 | 2.95   | 3.43 | 4.46  | 2.24 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in CET- HXB trial at Coimbatore (2025-26)**

| Code-II | Entry                       | Leaf  |       |       | Square |       | Bolls |       |
|---------|-----------------------------|-------|-------|-------|--------|-------|-------|-------|
|         |                             | 30D   | 60D   | 90D   | 60D    | 90D   | 90D   | 120D  |
| 55101   | KSP 5253 (HXB) BGII         | 184.8 | 246.6 | 310.6 | 378.3  | 471.6 | 401.9 | 617.3 |
| 55102   | ACHB 2111 BGII              | 179.1 | 205.4 | 321.6 | 442.1  | 508.5 | 459.7 | 512.9 |
| 55103   | US 781 BGII                 | 166.0 | 229.2 | 217.4 | 435.7  | 524.2 | 515.1 | 540.7 |
| 55104   | GBCH 2002 BGII              | 141.2 | 287.3 | 274.8 | 311.8  | 460.0 | 490.7 | 684.7 |
| 55105   | CHB 1 BG II                 | 166.8 | 232.3 | 317.5 | 287.3  | 501.7 | 495.4 | 612.0 |
| 55106   | PGCHB 64 BGII               | 152.9 | 281.5 | 250.0 | 440.4  | 613.5 | 423.6 | 639.0 |
| 55107   | <b>MRC 7918 BG II (ZC1)</b> | 162.2 | 301.3 | 228.4 | 277.9  | 485.6 | 508.6 | 581.6 |
| 55108   | DACHB 93S39 BGII            | 149.6 | 325.8 | 285.0 | 319.1  | 652.0 | 470.2 | 597.1 |
| 55109   | <b>MRC 6918 BG II (ZC2)</b> | 130.3 | 203.7 | 238.7 | 328.0  | 603.3 | 504.7 | 606.8 |
| 55110   | NCHB 5799 Bt II             | 115.9 | 214.7 | 290.0 | 270.1  | 544.4 | 520.0 | 600.2 |
| 55111   | SP 7710 BGII                | 135.0 | 280.9 | 319.5 | 337.9  | 570.0 | 496.2 | 613.8 |

**Cry1Ac Protein Quantity (ppm or µg/g dwt) in CET- HXB trial at Dharwad (2025-26)**

| Code-II | Entry                       | Leaf |      | Square |      | Bolls |      |
|---------|-----------------------------|------|------|--------|------|-------|------|
|         |                             | 60D  | 90D  | 60D    | 90D  | 90D   | 120D |
| 55101   | KSP 5253 (HXB) BGII         | 4.42 | 6.25 | 2.76   | 3.84 | 5.90  | 1.61 |
| 55102   | ACHB 2111 BGII              | 3.00 | 4.47 | 3.72   | 4.02 | 3.87  | 1.53 |
| 55103   | US 781 BGII                 | 3.68 | 7.96 | 2.16   | 5.40 | 3.26  | 1.59 |
| 55104   | GBCH 2002 BGII              | 2.96 | 7.77 | 2.40   | 5.16 | 7.04  | 2.04 |
| 55105   | CHB 1 BG II                 | 4.56 | 3.75 | 3.78   | 4.50 | 4.46  | 1.43 |
| 55106   | PGCHB 64 BGII               | 4.33 | 3.98 | 1.32   | 3.90 | 5.85  | 2.09 |
| 55107   | <b>MRC 7918 BG II (ZC1)</b> | 3.11 | 6.53 | 2.82   | 3.84 | 5.51  | 2.21 |
| 55108   | DACHB 93S39 BGII            | 3.76 | 4.88 | 1.44   | 2.70 | 4.70  | 1.53 |
| 55109   | <b>MRC 6918 BG II (ZC2)</b> | 4.23 | 6.40 | 0.78   | 4.26 | 6.80  | 1.22 |
| 55110   | NCHB 5799 Bt II             | 3.50 | 4.38 | 1.80   | 4.38 | 3.57  | 1.98 |
| 55111   | SP 7710 BGII                | 5.45 | 3.39 | 1.92   | 4.14 | 4.71  | 1.52 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in CET- HXB trial at Dharwad (2025-26)**

| Code-II | Entry                       | Leaf  |       | Square |       | Bolls |       |
|---------|-----------------------------|-------|-------|--------|-------|-------|-------|
|         |                             | 60D   | 90D   | 60D    | 90D   | 90D   | 120D  |
| 55101   | KSP 5253 (HXB) BGII         | 352.8 | 481.2 | 293.5  | 371.0 | 564.6 | 498.3 |
| 55102   | ACHB 2111 BGII              | 316.6 | 361.1 | 302.4  | 375.6 | 439.4 | 539.9 |
| 55103   | US 781 BGII                 | 376.7 | 428.1 | 290.8  | 546.4 | 561.0 | 533.1 |
| 55104   | GBCH 2002 BGII              | 396.8 | 423.6 | 282.0  | 342.5 | 414.4 | 638.3 |
| 55105   | CHB 1 BG II                 | 282.5 | 363.6 | 225.2  | 442.7 | 426.9 | 427.4 |
| 55106   | PGCHB 64 BGII               | 455.6 | 520.2 | 276.5  | 322.5 | 776.3 | 543.2 |
| 55107   | <b>MRC 7918 BG II (ZC1)</b> | 328.3 | 463.0 | 228.4  | 379.0 | 555.5 | 611.5 |
| 55108   | DACHB 93S39 BGII            | 395.0 | 435.1 | 214.0  | 435.5 | 508.5 | 522.3 |
| 55109   | <b>MRC 6918 BG II (ZC2)</b> | 428.3 | 337.2 | 186.4  | 334.4 | 758.3 | 510.6 |
| 55110   | NCHB 5799 Bt II             | 509.6 | 312.1 | 281.7  | 447.3 | 428.7 | 564.2 |
| 55111   | SP 7710 BGII                | 664.0 | 349.8 | 298.5  | 609.0 | 473.0 | 469.0 |



## Cry Protein Expression

### Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Raichur (2025-26)

| Code-II | Entry                       | Leaf |       |       |      | Square |      |      | Bolls |      |      |
|---------|-----------------------------|------|-------|-------|------|--------|------|------|-------|------|------|
|         |                             | 30D  | 60D   | 90D   | 120D | 60D    | 90D  | 120D | 60D   | 90D  | 120D |
| 55061   | KCH 9221 BGII               | 2.39 | 4.36  | 4.68  | 3.58 | 1.96   | 5.06 | 2.66 | 4.82  | 3.57 | 4.20 |
| 55062   | Core 102                    | 2.97 | 6.32  | 6.40  | 3.12 | 2.04   | 3.72 | 1.76 | 5.31  | 6.51 | 4.90 |
| 55063   | KCH 9225 BGII               | 3.04 | 10.28 | 6.56  | 3.26 | 4.58   | 2.26 | 2.46 | 6.61  | 3.78 | 3.78 |
| 55064   | NBC 21 BGII                 | 2.64 | 4.96  | 7.40  | 3.36 | 1.36   | 2.70 | 1.68 | 3.89  | 5.74 | 4.20 |
| 55065   | DC 5105 BGII                | 2.46 | 4.80  | 6.72  | 2.58 | 1.32   | 3.54 | 1.16 | 4.25  | 5.18 | 4.83 |
| 55066   | KCH 9222 BGII               | 2.36 | 5.04  | 5.96  | 6.08 | 2.96   | 3.08 | 2.22 | 6.08  | 6.44 | 3.78 |
| 55067   | C 9339 BGII                 | 3.21 | 3.28  | 8.44  | 3.80 | 1.26   | 3.66 | 1.56 | 5.02  | 9.80 | 5.81 |
| 55068   | <b>VSCH 369 BGII (ZC 2)</b> | 2.18 | 4.52  | 4.56  | 3.36 | 2.70   | 4.76 | 1.74 | 5.31  | 4.20 | 3.22 |
| 55069   | KCH 9223 BGII               | 2.42 | 4.40  | 3.44  | 5.64 | 2.60   | 4.06 | 2.40 | 4.22  | 3.92 | 2.17 |
| 55070   | SS 459 BG II                | 2.65 | 3.80  | 6.04  | 2.10 | 2.94   | 2.08 | 1.52 | 4.28  | 4.34 | 2.10 |
| 55071   | VSCH 372 BGII               | 1.73 | 4.40  | 6.60  | 3.60 | 2.02   | 2.12 | 1.42 | 3.16  | 5.88 | 4.41 |
| 55072   | US 717 BGII                 | 2.18 | 4.48  | 10.04 | 2.50 | 2.68   | 3.54 | 1.38 | 4.31  | 6.79 | 2.73 |
| 55073   | RCH 1016 BGII               | 2.61 | 3.48  | 6.16  | 3.86 | 1.34   | 4.56 | 1.66 | 4.71  | 4.97 | 5.11 |
| 55074   | RCH 1026 BG II              | 1.98 | 4.40  | 6.76  | 2.74 | 1.32   | 4.72 | 1.70 | 1.94  | 8.35 | 6.30 |
| 55075   | DLCH-9 Bt II                | 2.46 | 6.08  | 9.24  | 3.72 | 2.48   | 4.88 | 1.94 | 3.76  | 5.25 | 5.18 |
| 55076   | <b>NBC 1821 BGII (ZC 1)</b> | 2.99 | 2.60  | 4.24  | 3.52 | 2.30   | 3.88 | 1.76 | 4.04  | 6.80 | 5.25 |
| 55077   | 25D181 BGII                 | 2.46 | 5.80  | 3.56  | 3.38 | 4.00   | 2.74 | 2.14 | 3.30  | 5.30 | 3.64 |

### Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Raichur (2025-26)

| Code-II | Entry                       | Leaf  |       |       |       | Square |       |        | Bolls |       |       |
|---------|-----------------------------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|
|         |                             | 30D   | 60D   | 90D   | 120D  | 60D    | 90D   | 120D   | 60D   | 90D   | 120D  |
| 55061   | KCH 9221 BGII               | 283.0 | 268.8 | 282.7 | 227.5 | 309.8  | 295.0 | 477.5  | 268.9 | 267.2 | 596.9 |
| 55062   | Core 102                    | 246.0 | 376.4 | 594.4 | 285.5 | 282.5  | 261.5 | 477.5  | 363.8 | 312.8 | 603.9 |
| 55063   | KCH 9225 BGII               | 234.0 | 473.2 | 506.2 | 175.7 | 328.1  | 222.3 | 449.2  | 236.4 | 298.0 | 607.1 |
| 55064   | NBC 21 BGII                 | 303.7 | 279.1 | 494.8 | 165.8 | 197.1  | 216.1 | 212.0  | 180.0 | 209.2 | 493.4 |
| 55065   | DC 5105 BGII                | 212.5 | 350.2 | 430.4 | 172.1 | 172.4  | 154.9 | 401.5  | 189.5 | 122.1 | 396.5 |
| 55066   | KCH 9222 BGII               | 164.2 | 310.4 | 432.3 | 252.4 | 278.3  | 230.0 | 412.8  | 232.6 | 350.8 | 582.3 |
| 55067   | C 9339 BGII                 | 208.7 | 211.0 | 199.7 | 170.5 | 155.4  | 213.6 | 262.8  | 208.8 | 194.1 | 537.3 |
| 55068   | <b>VSCH 369 BGII (ZC 2)</b> | 212.5 | 699.6 | 322.7 | 185.6 | 306.3  | 364.2 | 689.7  | 363.6 | 383.1 | 618.2 |
| 55069   | KCH 9223 BGII               | 178.9 | 471.5 | 400.9 | 243.9 | 278.0  | 477.5 | 431.4  | 293.2 | 406.3 | 651.8 |
| 55070   | SS 459 BG II                | 261.2 | 421.9 | 646.2 | 191.9 | 327.0  | 238.2 | 455.0  | 519.3 | 206.2 | 582.0 |
| 55071   | VSCH 372 BGII               | 275.3 | 915.5 | 698.0 | 830.9 | 645.0  | 526.2 | 2260.3 | 628.1 | 503.7 | 611.8 |
| 55072   | US 717 BGII                 | 215.4 | 331.2 | 729.5 | 217.7 | 293.8  | 323.4 | 374.2  | 282.5 | 256.7 | 596.3 |
| 55073   | RCH 1016 BGII               | 371.5 | 594.4 | 790.8 | 427.9 | 423.5  | 693.3 | 673.4  | 638.5 | 500.9 | 628.3 |
| 55074   | RCH 1026 BG II              | 341.0 | 858.3 | 816.0 | 420.4 | 499.5  | 748.0 | 628.5  | 464.4 | 641.7 | 630.4 |
| 55075   | DLCH-9 Bt II                | 397.7 | 510.9 | 690.2 | 561.3 | 287.9  | 667.1 | 532.1  | 246.4 | 291.7 | 638.0 |
| 55076   | <b>NBC 1821 BGII (ZC 1)</b> | 219.7 | 350.2 | 692.1 | 280.4 | 239.0  | 422.9 | 291.6  | 287.2 | 234.7 | 412.4 |
| 55077   | 25D181 BGII                 | 222.0 | 526.5 | 671.8 | 306.3 | 331.3  | 709.4 | 494.4  | 270.4 | 357.4 | 596.5 |



**Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Raichur (2025-26)**

| Code-II | Entry                | Leaf |      |      |      | Square |      |      | Bolls |      |      |
|---------|----------------------|------|------|------|------|--------|------|------|-------|------|------|
|         |                      | 30D  | 60D  | 90D  | 120D | 60D    | 90D  | 120D | 60D   | 90D  | 120D |
| 55161   | Local Check          | 4.14 | 0.62 | 1.02 | 0.63 | 0.37   | 0.31 | 0.12 | 2.69  | 1.48 | 0.08 |
| 55162   | Lam Bt 2208 BG II    | 3.92 | 5.16 | 4.06 | 3.96 | 2.84   | 3.33 | 2.72 | 4.14  | 1.26 | 0.63 |
| 55163   | Suraksha (Non-Bt ZC) | 5.85 | 3.60 | 4.05 | 1.68 | 2.51   | 3.72 | 1.80 | 2.28  | 2.60 | 0.65 |
| 55164   | CICR 23 Bt (Bt ZC)   | 3.10 | 3.92 | 7.54 | 3.30 | 2.96   | 3.78 | 2.44 | 4.54  | 2.78 | 1.39 |
| 55165   | WGCV Bt 28           | 4.21 | 4.44 | 6.41 | 5.52 | 2.25   | 4.20 | 4.68 | 5.46  | 1.36 | 0.68 |
| 55166   | ARCV 99 BGII         | 7.11 | 3.16 | 7.27 | 5.13 | 1.95   | 2.10 | 2.76 | 3.32  | 0.94 | 0.47 |
| 55167   | ARCV 111 BGII        | 6.70 | 3.04 | 6.40 | 4.17 | 3.35   | 1.08 | 2.96 | 5.32  | 2.26 | 1.13 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II Hirsutum trial at Raichur (2025-26)**

| Code-II | Entry                | Leaf  |       |       |       | Square |       |        | Bolls |       |       |
|---------|----------------------|-------|-------|-------|-------|--------|-------|--------|-------|-------|-------|
|         |                      | 30D   | 60D   | 90D   | 120D  | 60D    | 90D   | 120D   | 60D   | 90D   | 120D  |
| 55161   | Local Check          | --    | --    | --    | --    | --     | --    | --     | --    | --    | --    |
| 55162   | Lam Bt 2208 BG II    | 403.4 | 262.4 | 316.0 | 636.1 | 566.8  | 813.8 | 679.8  | 316.1 | 652.5 | 778.6 |
| 55163   | Suraksha (Non-Bt ZC) | 205.4 | 84.5  | 157.4 | 256.3 | 111.6  | 599.4 | 309.2  | 95.1  | 497.3 | 54.0  |
| 55164   | CICR 23 Bt (Bt ZC)   | --    | --    | --    | --    | --     | --    | --     | --    | --    | --    |
| 55165   | WGCV Bt 28           | --    | --    | --    | --    | --     | --    | --     | --    | --    | --    |
| 55166   | ARCV 99 BGII         | 643.7 | 202.0 | 336.9 | 696.8 | 389.0  | 848.8 | 1001.2 | 395.5 | 637.8 | 794.1 |
| 55167   | ARCV 111 BGII        | 246.7 | 81.8  | 64.5  | 214.7 | 357.0  | 235.7 | 403.1  | 120.0 | 270.7 | 256.0 |

## Cry Protein Expression

### Rainfed Trials

**Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Dharwad (2025-26)**

| Code-II | Entry                    | Leaf |      | Square |      | Bolls |      |
|---------|--------------------------|------|------|--------|------|-------|------|
|         |                          | 60D  | 90D  | 60D    | 90D  | 90D   | 120D |
| 56051   | SP7679 BGII (ZC 1)       | 3.99 | 6.19 | 2.75   | 4.60 | 4.03  | 2.82 |
| 56052   | SRCH 369 BGII            | 2.33 | 4.71 | 2.85   | 2.80 | 4.61  | 2.08 |
| 56053   | BIO 6720 BGII            | 2.31 | 4.52 | 2.70   | 4.12 | 4.12  | 2.26 |
| 56054   | DACH 85S85 BGII          | 2.75 | 4.93 | 3.25   | 2.48 | 5.06  | 2.02 |
| 56055   | ARCH 771 BGII            | 2.33 | 5.05 | 2.80   | 3.60 | 3.61  | 2.22 |
| 56056   | C 9340 BGII              | 3.62 | 5.11 | 0.90   | 3.68 | 3.92  | 1.98 |
| 56057   | RCH 1060 BGII            | 2.52 | 4.89 | 1.05   | 2.92 | 3.90  | 1.74 |
| 56058   | KCH 9227 BGII            | 3.93 | 7.62 | 2.35   | 4.04 | 3.48  | 2.54 |
| 56059   | ARCH 781 BGII            | 1.58 | 4.80 | 1.20   | 3.00 | 3.86  | 1.88 |
| 56060   | RCH 1039 BGII            | 2.03 | 5.13 | 1.50   | 2.76 | 4.65  | 1.76 |
| 56061   | CORE 101 BGII            | 4.80 | 6.82 | 3.20   | 4.56 | 3.68  | 2.02 |
| 56062   | Daftari 615 BG II (ZC 2) | 3.78 | 7.06 | 1.35   | 3.60 | 4.34  | 1.94 |
| 56063   | KCH 9226 BGII            | 4.92 | 7.38 | 2.05   | 5.04 | 3.73  | 2.02 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-II HXH trial at Dharwad (2025-26)**

| Code-II | Entry                    | Leaf  |       | Square |       | Bolls |       |
|---------|--------------------------|-------|-------|--------|-------|-------|-------|
|         |                          | 60D   | 90D   | 60D    | 90D   | 90D   | 120D  |
| 56051   | SP7679 BGII (ZC 1)       | 163.0 | 492.8 | 384.8  | 408.4 | 802.1 | 504.3 |
| 56052   | SRCH 369 BGII            | 342.7 | 324.4 | 320.9  | 405.1 | 401.0 | 386.6 |
| 56053   | BIO 6720 BGII            | 247.4 | 197.5 | 122.3  | 305.9 | 301.0 | 395.3 |
| 56054   | DACH 85S85 BGII          | 562.5 | 634.3 | 388.1  | 799.8 | 644.3 | 357.4 |
| 56055   | ARCH 771 BGII            | 357.1 | 253.1 | 231.6  | 411.2 | 230.4 | 465.1 |
| 56056   | C 9340 BGII              | 306.6 | 260.5 | 78.3   | 213.9 | 200.9 | 287.6 |
| 56057   | RCH 1060 BGII            | 559.6 | 566.5 | 273.0  | 381.0 | 469.4 | 428.7 |
| 56058   | KCH 9227 BGII            | 278.0 | 297.3 | 226.5  | 343.1 | 188.8 | 854.0 |
| 56059   | ARCH 781 BGII            | 459.6 | 458.8 | 617.1  | 444.3 | 504.5 | 484.7 |
| 56060   | RCH 1039 BGII            | 531.6 | 526.9 | 283.4  | 723.3 | 408.5 | 454.1 |
| 56061   | CORE 101 BGII            | 311.7 | 284.8 | 210.4  | 385.3 | 358.8 | 343.1 |
| 56062   | Daftari 615 BG II (ZC 2) | 416.9 | 402.7 | 118.2  | 283.6 | 455.1 | 339.7 |
| 56063   | KCH 9226 BGII            | 329.4 | 406.0 | 173.3  | 343.3 | 226.8 | 554.6 |



**Cry1Ac Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Dharwad (2025-26)**

| Code-II | Entry                              | Leaf |      | Square |      | Bolls |      |
|---------|------------------------------------|------|------|--------|------|-------|------|
|         |                                    | 60D  | 90D  | 60D    | 90D  | 90D   | 120D |
| 56091   | KCH9287 BGII                       | 8.08 | 5.55 | 2.46   | 3.21 | 4.96  | 2.86 |
| 56092   | NCS 9531 Bt2                       | 6.77 | 7.00 | 2.37   | 3.24 | 3.47  | 2.84 |
| 56093   | <b>Daftari 615 BG II (ZC 2)</b>    | 5.33 | 3.03 | 1.89   | 2.34 | 4.22  | 2.16 |
| 56094   | BIO6910 BGII                       | 6.38 | 5.93 | 2.10   | 3.18 | 3.65  | 3.24 |
| 56095   | PCH 7544 Bt2                       | 3.02 | 4.80 | 1.86   | 2.73 | 4.37  | 2.88 |
| 56096   | <b>SP7679 BGII (ZC 1)</b>          | 5.44 | 5.10 | 1.86   | 3.75 | 4.57  | 2.40 |
| 56097   | NCS 9955 Bt2                       | 3.48 | 4.41 | 3.08   | 2.93 | 4.13  | 1.34 |
| 56098   | RCH 1119BGII                       | 6.41 | 7.06 | 2.58   | 3.90 | 4.52  | 3.06 |
|         | <b>SP7679 BGII (ZC 1) (normal)</b> | 4.67 | 3.25 | 1.86   | 3.78 | 4.54  | 3.44 |

**Cry2Ab Protein Quantity (ppm or µg/g dwt) in AET-I HXH-Compact trial at Dharwad (2025-26)**

| Code-II | Entry                              | Leaf  |       | Square |       | Bolls |       |
|---------|------------------------------------|-------|-------|--------|-------|-------|-------|
|         |                                    | 60D   | 90D   | 60D    | 90D   | 90D   | 120D  |
| 56091   | KCH9287 BGII                       | 444.5 | 262.1 | 325.4  | 477.1 | 483.7 | 449.4 |
| 56092   | NCS 9531 Bt2                       | 302.4 | 217.8 | 310.6  | 429.0 | 430.9 | 401.2 |
| 56093   | <b>Daftari 615 BG II (ZC 2)</b>    | 404.5 | 269.5 | 254.9  | 276.4 | 430.0 | 429.2 |
| 56094   | BIO6910 BGII                       | 346.5 | 242.4 | 233.3  | 421.9 | 436.2 | 351.4 |
| 56095   | PCH 7544 Bt2                       | 389.9 | 323.2 | 276.3  | 409.1 | 375.8 | 453.7 |
| 56096   | <b>SP7679 BGII (ZC 1)</b>          | 765.1 | 520.9 | 351.0  | 437.5 | 761.5 | 475.7 |
| 56097   | NCS 9955 Bt2                       | 347.3 | 275.0 | 417.4  | 445.4 | 364.0 | 382.4 |
| 56098   | RCH 1119BGII                       | 327.0 | 306.1 | 227.8  | 262.3 | 340.8 | 527.4 |
|         | <b>SP7679 BGII (ZC 1) (normal)</b> | 737.9 | 579.3 | 367.3  | 435.0 | 893.6 | 523.3 |

\*\* As per the recommendation of Monitoring Committee, the AET-II HXH and AET-I HXH-Compact trials at Nandyal Center were vitiated, Cry1Ac and Cry2Ab protein expression data is not included in the report





## ***Helicoverpa armigera* Bioassay**

**South Zone - Irrigated**

**Laboratory Bioassay of *Helicoverpa armigera* Coimbatore Center 2025-26**

**Table.21 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on leaf in laboratory condition at Coimbatore**

| Name of Entries      | Leaf Mortality (%) |        |        |         |         |         | Mean         |
|----------------------|--------------------|--------|--------|---------|---------|---------|--------------|
|                      | 30 DAS             | 60 DAS | 80 DAS | 100 DAS | 120 DAS | 140 DAS |              |
| KCH 9221 BGII        | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 93.33   | <b>98.33</b> |
| Core 102             | 100.00             | 100.00 | 96.67  | 100.00  | 93.33   | 90.00   | <b>96.67</b> |
| KCH 9225 BGII        | 93.33              | 100.00 | 100.00 | 100.00  | 93.33   | 93.33   | <b>96.67</b> |
| NBC 21 BGII          | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 96.67   | <b>99.45</b> |
| DC 5105 BGII         | 100.00             | 96.67  | 96.67  | 96.67   | 96.67   | 86.67   | <b>95.56</b> |
| KCH 9222 BGII        | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 96.67   | <b>98.89</b> |
| C 9339 BGII          | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 96.67   | <b>99.45</b> |
| VSCH 369 BGII (ZC 2) | 100.00             | 93.33  | 96.67  | 96.67   | 100.00  | 90.00   | <b>96.11</b> |
| KCH 9223 BGII        | 100.00             | 96.67  | 93.33  | 96.67   | 96.67   | 90.00   | <b>95.56</b> |
| SS 459 BG II         | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 90.00   | <b>98.33</b> |
| VSCH 372 BGII        | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 93.33   | <b>98.33</b> |
| US 717 BGII          | 100.00             | 100.00 | 100.00 | 100.00  | 93.33   | 93.33   | <b>97.78</b> |
| RCH 1016 BGII        | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 93.33   | <b>98.33</b> |
| RCH 1026 BG II       | 100.00             | 100.00 | 100.00 | 96.67   | 93.33   | 90.00   | <b>96.67</b> |
| DLCH-9 Bt II         | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 90.00   | <b>98.33</b> |
| NBC 1821 BGII (ZC 1) | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 93.33   | <b>98.33</b> |
| 25D181 BGII          | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 93.33   | <b>98.89</b> |

**Table.22 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on Square, Flower & Bolls in laboratory condition at Coimbatore**

| Name of Entry        | Mortality (%)  |                |               |               |
|----------------------|----------------|----------------|---------------|---------------|
|                      | Square(70 DAS) | Flower(80 DAS) | Bolls(100DAS) | Mean          |
| KCH 9221 BGII        | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| Core 102             | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| KCH 9225 BGII        | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| NBC 21 BGII          | 100.00         | 96.67          | 96.67         | <b>97.78</b>  |
| DC 5105 BGII         | 96.67          | 100.00         | 100.00        | <b>98.89</b>  |
| KCH 9222 BGII        | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| C 9339 BGII          | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| VSCH 369 BGII (ZC 2) | 93.33          | 100.00         | 100.00        | <b>97.78</b>  |
| KCH 9223 BGII        | 96.67          | 96.67          | 96.67         | <b>96.67</b>  |
| SS 459 BG II         | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| VSCH 372 BGII        | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| US 717 BGII          | 100.00         | 96.67          | 96.67         | <b>97.78</b>  |
| RCH 1016 BGII        | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| RCH 1026 BG II       | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| DLCH-9 Bt II         | 100.00         | 96.67          | 96.67         | <b>97.78</b>  |
| NBC 1821 BGII (ZC 1) | 100.00         | 100.00         | 100.00        | <b>100.00</b> |
| 25D181 BGII          | 100.00         | 100.00         | 100.00        | <b>100.00</b> |



**Table.23 *Helicoverpa armigera* bioassay on Advance HxH Compact hybrid trial (AET-I) on leaf in laboratory condition at Coimbatore**

| Name of Entry        | Leaf Mortality (%) |        |        |         |         |         |              |
|----------------------|--------------------|--------|--------|---------|---------|---------|--------------|
|                      | 30 DAS             | 60 DAS | 80 DAS | 100 DAS | 120 DAS | 140 DAS | Mean         |
| VSCH 369 BGII (ZC 2) | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 93.33   | <b>98.33</b> |
| NBC 1821 BGII (ZC 1) | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 100.00  | <b>99.45</b> |
| Indam 2412 BGII      | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 93.33   | <b>98.89</b> |
| ACH 41-2 BGII        | 96.67              | 96.67  | 96.67  | 96.67   | 90.00   | 90.00   | <b>94.45</b> |

**Table.24 *Helicoverpa armigera* bioassay on Advance HxH Compact hybrid trial (AET-I) on Square, Flower & Bolls in laboratory condition at Coimbatore**

| Name of Entry        | Mortality (%)  |               |               |               |
|----------------------|----------------|---------------|---------------|---------------|
|                      | Square(70 DAS) | Flower(80DAS) | Bolls(100DAS) | Mean          |
| VSCH 369 BGII (ZC 2) | 96.67          | 100.00        | 100.00        | <b>98.89</b>  |
| NBC 1821 BGII (ZC 1) | 100.00         | 100.00        | 100.00        | <b>100.00</b> |
| Indam 2412 BGII      | 100.00         | 90.00         | 96.67         | <b>95.56</b>  |
| ACH 41-2 BGII        | 96.67          | 100.00        | 100.00        | <b>98.89</b>  |

**Table.25 *Helicoverpa armigera* bioassay on CET HxB hybrid trial on leaf in laboratory condition at Coimbatore**

| Name of Entry        | Leaf Mortality (%) |        |        |         |         |         |              |
|----------------------|--------------------|--------|--------|---------|---------|---------|--------------|
|                      | 30 DAS             | 60 DAS | 80 DAS | 100 DAS | 120 DAS | 140 DAS | Mean         |
| KSP 5253 (HXB) BGII  | 100.00             | 96.67  | 100.00 | 96.67   | 100.00  | 93.33   | <b>97.78</b> |
| ACHB 2111 BGII       | 96.67              | 100.00 | 90.00  | 100.00  | 90.00   | 90.00   | <b>94.45</b> |
| US 781 BGII          | 100.00             | 96.67  | 86.67  | 96.67   | 100.00  | 86.67   | <b>94.45</b> |
| GBCH 2002 BGII       | 96.67              | 96.67  | 100.00 | 96.67   | 93.33   | 86.67   | <b>95.00</b> |
| CHB 1 BG II          | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 93.33   | <b>98.89</b> |
| PGCHB 64 BGII        | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 93.33   | <b>98.89</b> |
| MRC 7918 BG II (ZC1) | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 90.00   | <b>97.78</b> |
| DACHB 93S39 BGII     | 100.00             | 96.67  | 96.67  | 96.67   | 93.33   | 86.67   | <b>95.00</b> |
| MRC 6918 BG II (ZC2) | 100.00             | 100.00 | 100.00 | 100.00  | 96.67   | 90.00   | <b>97.78</b> |
| NCHB 5799 Bt II      | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 93.33   | <b>98.89</b> |
| SP 7710 BGII         | 100.00             | 100.00 | 100.00 | 100.00  | 93.33   | 100.00  | <b>98.89</b> |

**Table.26 *Helicoverpa armigera* bioassay on CET HxB hybrid trial on Square, Flower & Bolls in laboratory condition at Coimbatore**

| Name of Entry        | Mortality (%)  |               |               |               |
|----------------------|----------------|---------------|---------------|---------------|
|                      | Square(70 DAS) | Flower(80DAS) | Bolls(100DAS) | Mean          |
| KSP 5253 (HXB) BGII  | 100.00         | 96.67         | 96.67         | <b>97.78</b>  |
| ACHB 2111 BGII       | 90.00          | 100.00        | 100.00        | <b>96.67</b>  |
| US 781 BGII          | 90.00          | 100.00        | 100.00        | <b>96.67</b>  |
| GBCH 2002 BGII       | 100.00         | 100.00        | 100.00        | <b>100.00</b> |
| CHB 1 BG II          | 100.00         | 100.00        | 100.00        | <b>100.00</b> |
| PGCHB 64 BGII        | 100.00         | 100.00        | 96.67         | <b>98.89</b>  |
| MRC 7918 BG II (ZC1) | 100.00         | 100.00        | 100.00        | <b>100.00</b> |
| DACHB 93S39 BGII     | 96.67          | 100.00        | 100.00        | <b>98.89</b>  |
| MRC 6918 BG II (ZC2) | 100.00         | 100.00        | 100.00        | <b>100.00</b> |
| NCHB 5799 Bt II      | 96.67          | 100.00        | 100.00        | <b>98.89</b>  |
| SP 7710 BGII         | 100.00         | 100.00        | 100.00        | <b>100.00</b> |



**Table.29 *Helicoverpa armigera* bioassay on Advance Hir.Variety trial (AET-II) on leaf in laboratory condition at Coimbatore**

| Name of Entries     | Leaf Mortality (%) |        |        |         |         |         | Mean         |
|---------------------|--------------------|--------|--------|---------|---------|---------|--------------|
|                     | 30 DAS             | 60 DAS | 80 DAS | 100 DAS | 120 DAS | 140 DAS |              |
| Local Check         | 10.00              | 13.33  | 16.67  | 16.67   | 13.33   | 20.00   | <b>15.00</b> |
| Lam Bt 2208 BG II   | 96.67              | 96.67  | 96.67  | 96.67   | 93.33   | 93.33   | <b>95.56</b> |
| uraksha (Non-Bt ZC) | 13.33              | 16.67  | 13.33  | 20.00   | 16.67   | 16.67   | <b>16.11</b> |
| CICR 23 Bt (Bt ZC)  | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 93.33   | <b>98.89</b> |
| WGCV Bt 28          | 93.33              | 93.33  | 96.67  | 96.67   | 90.00   | 86.67   | <b>92.78</b> |
| ARCV 99 BGII        | 100.00             | 100.00 | 100.00 | 100.00  | 100.00  | 90.00   | <b>98.33</b> |
| ARCV 111 BGII       | 96.67              | 96.67  | 93.33  | 96.67   | 93.33   | 86.67   | <b>93.89</b> |

**Table.30 *Helicoverpa armigera* bioassay on Advance Hir. Variety trial (AET-II) on Square, Flower & Bolls in laboratory condition at Coimbatore**

| Name of Entry        | Mortality (%)  |               |               | Mean          |
|----------------------|----------------|---------------|---------------|---------------|
|                      | Square(70 DAS) | Flower(80DAS) | Bolls(100DAS) |               |
| Local Check          | 13.33          | 16.67         | 16.67         | <b>15.56</b>  |
| Lam Bt 2208 BG II    | 96.67          | 100.00        | 100.00        | <b>98.89</b>  |
| Suraksha (Non-Bt ZC) | 16.67          | 16.67         | 16.67         | <b>16.67</b>  |
| CICR 23 Bt (Bt ZC)   | 100.00         | 96.67         | 96.67         | <b>97.78</b>  |
| WGCV Bt 28           | 93.33          | 100.00        | 100.00        | <b>97.78</b>  |
| ARCV 99 BGII         | 100.00         | 100.00        | 100.00        | <b>100.00</b> |
| ARCV 111 BGII        | 96.67          | 100.00        | 100.00        | <b>98.89</b>  |

## ***Helicoverpa armigera* Bioassay**

### **South Zone - Rainfed**

#### **Laboratory Bioassay of *Helicoverpa armigera* Dharwad Center 2025-26**

**Table.31 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on leaf in laboratory condition at Dharwad**

| Name of Entry            | Leaf Mortality (%) |        |        |         |         |         | Mean         |
|--------------------------|--------------------|--------|--------|---------|---------|---------|--------------|
|                          | 30 DAS             | 60 DAS | 80 DAS | 100 DAS | 120 DAS | 140 DAS |              |
| SP7679 BGII (ZC 1)       | 100.0              | 100.00 | 96.43  | 96.30   | 92.59   | 93.10   | <b>95.81</b> |
| SRCH 369 BGII            | 96.43              | 100.00 | 96.43  | 92.59   | 92.59   | 89.66   | <b>94.61</b> |
| BIO 6720 BGII            | 96.43              | 96.30  | 96.43  | 92.59   | 92.59   | 89.66   | <b>93.94</b> |
| DACH 85S85 BGII          | 100.00             | 100.00 | 100.00 | 100.00  | 96.30   | 89.66   | <b>97.58</b> |
| ARCH 771 BGII            | 100.00             | 100.00 | 96.43  | 100.00  | 92.59   | 89.66   | <b>96.36</b> |
| C 9340 BGII              | 100.00             | 100.00 | 96.43  | 96.30   | 92.59   | 89.66   | <b>95.76</b> |
| RCH 1060 BGII            | 96.55              | 100.00 | 96.43  | 96.30   | 100.00  | 93.10   | <b>96.97</b> |
| KCH 9227 BGII            | 100.00             | 100.00 | 96.43  | 96.30   | 96.30   | 89.66   | <b>96.36</b> |
| ARCH 781 BGII            | 100.00             | 100.00 | 100.00 | 100.00  | 92.59   | 93.10   | <b>97.58</b> |
| RCH 1039 BGII            | 100.00             | 100.00 | 100.00 | 100.00  | 92.59   | 93.10   | <b>97.58</b> |
| CORE 101 BGII            | 100.00             | 100.00 | 96.43  | 96.30   | 96.30   | 93.10   | <b>96.97</b> |
| Daftari 615 BG II (ZC 2) | 96.55              | 100.00 | 96.43  | 96.30   | 92.59   | 93.10   | <b>95.76</b> |
| KCH 9226 BGII            | 100.00             | 96.30  | 100.00 | 100.00  | 92.59   | 96.55   | <b>97.58</b> |

**Table.32 *Helicoverpa armigera* bioassay on Advance HxH hybrid trial (AET-II) on Square, Flower & Bolls in laboratory condition at Dharwad**

| Name of entry            | Mortality (%)  |                |                | Mean         |
|--------------------------|----------------|----------------|----------------|--------------|
|                          | Square(70 DAS) | Flower(80 DAS) | Bolls(100 DAS) |              |
| SP7679 BGII (ZC 1)       | 96.43          | 92.86          | 92.00          | <b>93.76</b> |
| SRCH 369 BGII            | 100.00         | 92.86          | 92.00          | <b>94.95</b> |
| BIO 6720 BGII            | 100.00         | 96.43          | 96.00          | <b>97.48</b> |
| DACH 85S85 BGII          | 100.00         | 96.43          | 96.00          | <b>97.48</b> |
| ARCH 771 BGII            | 96.43          | 96.43          | 92.00          | <b>94.95</b> |
| C 9340 BGII              | 96.43          | 92.86          | 88.00          | <b>92.43</b> |
| RCH 1060 BGII            | 100.00         | 96.43          | 96.00          | <b>97.48</b> |
| KCH 9227 BGII            | 96.43          | 96.43          | 92.00          | <b>94.95</b> |
| ARCH 781 BGII            | 96.43          | 96.43          | 96.00          | <b>96.29</b> |
| RCH 1039 BGII            | 100.00         | 96.43          | 92.00          | <b>96.14</b> |
| CORE 101 BGII            | 96.43          | 96.43          | 92.00          | <b>94.95</b> |
| Daftari 615 BG II (ZC 2) | 96.43          | 96.43          | 92.00          | <b>94.95</b> |
| KCH 9226 BGII            | 96.43          | 92.86          | 92.00          | <b>93.76</b> |



**Table.33 *Helicoverpa armigera* bioassay on Advance HxH Compact hybrid trial (AET-I) on leaf in laboratory condition at Dharwad**

| Name of entry            | Leaf Mortality (%) |        |        |         |         |         | Mean         |
|--------------------------|--------------------|--------|--------|---------|---------|---------|--------------|
|                          | 30 DAS             | 60 DAS | 80 DAS | 100 DAS | 120 DAS | 140 DAS |              |
| KCH9287 BGII             | 100.00             | 100.00 | 96.55  | 100.00  | 96.30   | 89.29   | <b>97.02</b> |
| NCS 9531 Bt2             | 100.00             | 100.00 | 100.00 | 100.00  | 92.59   | 92.86   | <b>97.57</b> |
| Daftari 615 BG II (ZC 2) | 100.00             | 96.55  | 100.00 | 100.00  | 96.30   | 92.86   | <b>97.62</b> |
| BIO6910 BGII             | 96.55              | 96.55  | 96.55  | 100.00  | 92.59   | 92.86   | <b>95.85</b> |
| PCH 7544 Bt2             | 96.55              | 96.55  | 96.55  | 96.43   | 96.30   | 92.86   | <b>95.87</b> |
| SP7679 BGII (ZC 1)       | 100.00             | 96.55  | 96.55  | 96.43   | 96.30   | 92.86   | <b>96.45</b> |
| NCS 9955 Bt2             | 96.55              | 100.00 | 96.55  | 96.43   | 96.30   | 92.86   | <b>96.45</b> |
| RCH 1119BGII             | 100.00             | 96.55  | 100.00 | 96.43   | 92.59   | 92.86   | <b>96.41</b> |

**Table.34 *Helicoverpa armigera* bioassay on Advance HxH Compact hybrid trial (AET-I) on Square, Flower & Bolls in laboratory condition at Dharwad**

| Name of entry            | Mortality (%)  |                |                |              |
|--------------------------|----------------|----------------|----------------|--------------|
|                          | Square(70 DAS) | Flower(80 DAS) | Bolls(100 DAS) | Mean         |
| KCH9287 BGII             | 96.43          | 96.55          | 95.83          | <b>96.27</b> |
| NCS 9531 Bt2             | 96.43          | 96.55          | 95.83          | <b>96.27</b> |
| Daftari 615 BG II (ZC 2) | 96.43          | 96.55          | 91.67          | <b>94.88</b> |
| BIO6910 BGII             | 100.00         | 96.55          | 95.83          | <b>97.46</b> |
| PCH 7544 Bt2             | 100.00         | 96.55          | 95.83          | <b>97.46</b> |
| SP7679 BGII (ZC 1)       | 96.43          | 93.10          | 91.67          | <b>93.73</b> |
| NCS 9955 Bt2             | 100.00         | 96.55          | 95.83          | <b>97.46</b> |
| RCH 1119BGII             | 100.00         | 93.10          | 91.67          | <b>94.92</b> |



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