
Proceedings of the Varietal Identification Committee meeting for Non Bt Cotton Variety/ Hybrid through Video Conference- 9th April, 2021

The Varietal Identification Committee meeting for Non Bt cotton Variety/ Hybrid was held under the Chairmanship of Dr. T. R. Sharma, Deputy Director General (Crop Science), ICAR, New Delhi on 9th April, 2021 through Video Conference. The respected members of the Committee who attended the meeting were Dr. R.K. Singh, Assistant Director General (CC), Dr. D. K. Yadava, Assistant Director General (Seeds), Dr. Sujata Saxena, ICAR-CIRCOT, Dr. Sanjay Kumar, Director, ICAR-IISS, Mau, Dr. V. K. Kharche, Director of Research, PDKV, Akola, Sh. Pankaj D Mepani and Sh Pankaj D. Mepani, representatives from the Textile Industries, Dr. Millind Challawar, Head Cotton Breeding P R & PVP, M/s. Rallis India Limited, Representing Private seed Agency and Sh. M.L. Arora, Representative from NSC. Dr. A.H. Prakash, Member Secretary, VIC for Non Bt Cotton variety/ hybrid welcomed the Chairman and the members of the VIC and Resource Persons for the meeting.

With the Permission of the Chair, Dr. Prakash PC, AICRP on Cotton and Member Secretary, presented the General Guidelines for consideration of Identification Proposals. The Committee considered 24 Identification Proposals and after thorough discussion, the following recommendations were made.

1. PBH 115 (Pedigree: LH 1832 X LH 1556): The compact *G. hirsutum* variety was sponsored by PAU, Bathinda for identification in North zone under Irrigated conditions. The variety recorded 5% yield advantage over zonal check and 12.3% yield advantage over local check varieties. The variety had CLCuD incidence of 32.8% and is less than the permissible incidence level of 40%. Reaction to leaf hopper, white fly, thrips and bollworms are on par with the check varieties. It has moderate fibre quality. Hence, it is **identified for release in the North zone States of Punjab, Haryana and Rajasthan under Irrigated conditions.**

2. PBH 116 (Pedigree: LH 2108 X RS 2013): The *G. hirsutum* variety was sponsored by PAU, Bathinda for identification in North zone under Irrigated conditions. The variety recorded 27.7% yield advantage over zonal check and 48.9% yield advantage over local check varieties. The variety had CLCuD incidence of 35.8% and is less than the permissible incidence level of 40%. Reaction to leaf hopper, white fly, thrips and bollworms are on par with the check varieties. It has moderate fibre quality. Hence, it is **identified for release in the North zone States of Punjab, Haryana and Rajasthan under Irrigated conditions.**

3. F 2662 (Pedigree: F 2174 X LRK 516): The *G. hirsutum* variety was sponsored by PAU, Faridkot for identification in North zone under Irrigated conditions. The variety recorded 18.6% yield advantage over zonal check and 39.3% yield advantage over local check varieties. The variety had CLCuD incidence of 29.8% and is far less than the permissible incidence level of 40%. Reaction to leaf hopper, white fly, thrips and bollworms are on par with the check varieties. It has moderate fibre quality. Hence, it is **identified for release in the North zone States of Punjab, Haryana and Rajasthan under Irrigated conditions.**

4. TCH 1897 (Pedigree: KC 2 X TCH 1715-1): The compact *G. hirsutum* variety was sponsored by TNAU, Coimbatore for identification in Central zone under Irrigated conditions. The variety recorded 16.2% yield advantage over zonal check and 21.3% yield advantage over local check varieties. Since the fibre was sticky and could not be spun, it is **not identified**.

5. TCH 1828 (Pedigree: TCH 1002 X SRT 1): The *G. hirsutum* variety was sponsored by TNAU, Coimbatore for identification in Central zone under Irrigated conditions. The variety was inferior in yield to zonal check variety by 1.6 % and by 6.0% over local check varieties. Though the fibre quality is good because of poor yield, it is **not identified**.

6. SIMA-5 (Pedigree: MCU 5-VT X GP 75): The *G. hirsutum* variety was sponsored by SIMA-CDRA for identification in Central zone under Irrigated conditions. The variety was inferior in yield to zonal check variety by 8.7 % and by 10.2% over local check varieties. Though the fibre quality is good because of poor yield, it is **not identified**.

7. RHB 1008 (Pedigree: RHC-0577/3-3 x NDGB-17): The ELS *Hirsutum* x *Barbadense* hybrid was sponsored by MPKV, Rahuri for identification in Central zone under irrigated conditions. The hybrid recorded 22.4% yield advantage over zonal check and 57.2% yield advantage over local check hybrid. Reaction to leaf hopper, white fly, thrips and bollworms are on par with the check hybrids. It belongs to extra long staple category and has good fibre quality. Hence, it is **identified for release in the Central zone States of Maharashtra and Gujarat under Irrigated conditions**.

8. NDH 2005-4 (Pedigree: NDH 1755 X DWD 12): The *G. hirsutum* variety was sponsored by ANGRAU, Nandyal for identification in Central zone under rainfed conditions. The variety recorded 31% yield advantage over zonal check variety and 21% yield advantage over local check varieties. For diseases, it showed on par reaction with check varieties. It is tolerant to leaf hopper. It has good fibre quality property. Hence, it is **identified for release in Central zone states of Madhya Pradesh, Maharashtra, Gujarat, South Rajasthan and Odisha under rainfed conditions**.

9. NDH 2051-1 (Pedigree: HAG 823 X HYP5 152): The *G. hirsutum* variety was sponsored by ANGRAU, Nandyal for identification in Central zone under rainfed conditions. The variety recorded 18% yield advantage over zonal check variety and 4% yield advantage over local check varieties. For pests and diseases, it showed on par reaction with check varieties. It has moderate fibre quality property. Hence, it is **identified for release in Central zone states of Madhya Pradesh, Maharashtra, Gujarat, South Rajasthan and Odisha under rainfed conditions**.

10. CNH 1111 (Pedigree: Selection from random mating population): The *G. hirsutum* variety was sponsored by ICAR-CICR, Nagpur for identification in Central zone under rainfed conditions. The variety recorded 12.9% yield advantage over zonal check and inferior to local check varieties by 3.9%. For pests and diseases, it is comparable with the check varieties. It has moderate fibre quality. Hence, it is **identified for release in Central zone states of Madhya Pradesh, Maharashtra, Gujarat, South Rajasthan and Odisha under rainfed conditions**.

11. CNA 1031 (Pedigree: Selection from Random Mating Population): The *G. arboreum* variety was sponsored by ICAR-CICR, Nagpur for identification in Central zone under rainfed conditions. The variety recorded 13.4% yield advantage over zonal check variety and 4.7% yield advantage over local check varieties but was inferior to qualifying variety CNA 1054 by 5.3% from same Institute. Hence, it is **not identified**.

12. CNA 1054 (Pedigree: Selection from Random Mating Population): The *G. arboreum* variety was sponsored by ICAR-CICR, Nagpur for identification in Central zone under rainfed conditions. The variety recorded 19.4% yield advantage over zonal check variety and 10.4% yield advantage over local check varieties. For pests and diseases, it was on par with the check varieties. It has moderate fibre quality. Hence, it is **identified for release in Central zone states of Madhya Pradesh, Maharashtra, Gujarat, South Rajasthan and Odisha under rainfed conditions**.

13. NACH 556 (Pedigree: NCAGA 13 X NSA 318): The desi hybrid was sponsored by Nirmal Seeds Pvt Ltd for identification in Central zone under rainfed conditions. Though the hybrid exhibited yield advantage over check hybrids, the fibre quality is very poor and non-spinnable. Hence, it is **not identified**.

14. SIMA 5 (Pedigree: MCU 5-VT X GP 75): The *G. hirsutum* variety was sponsored by SIMA-CDRA for identification in South zone under Irrigated conditions. The variety inferior to zonal check variety by 6.2% and local check varieties by 12.7%. Though the fibre quality is good, because of its poor yield it is **not identified**.

15. DB 1701 (Pedigree: Selection from BCS 23-18-7): The ELS *G. barbadense* variety was sponsored by UAS, Dharwad for identification in South zone under Irrigated conditions. The variety recorded 23.1% yield advantage over zonal check variety. For diseases, it showed on par reaction with the check variety. Though it is moderately susceptible to leaf hopper as the check variety, it can be managed by suitable plant protection measures. It has good fibre quality. Hence, it is **identified for release in South zone states of Andhra Pradesh, Karnataka and Tamil Nadu under Irrigated conditions**.

16. CCB 143B (Pedigree: Suvin x CICR B Cotton 37): The ELS *G. barbadense* variety was sponsored by ICAR-CICR, Coimbatore for identification in South zone under Irrigated conditions. The variety recorded 18.6% yield advantage over zonal check variety. For diseases, it showed on par reaction with the check variety. Though it is moderately susceptible to leaf hopper, it can be managed by suitable plant protection measures. It has very good fibre quality. Hence, it is **identified for release in South zone states of Andhra Pradesh, Karnataka and Tamil Nadu under Irrigated conditions**.

17. RHB 1008 (Pedigree: RHC-0577/3-3 x NDGB-17): The ELS *Hirsutum x Barbadense* hybrid was sponsored by MPKV, Rahuri for identification in South zone under Irrigated conditions. The hybrid recorded 37.5% yield advantage over zonal check and 22.9% over local check hybrids. For pests and diseases, it is on par with the check hybrids. Though it is moderately susceptible to leaf hopper, it can be managed by suitable plant protection measures. It has good fibre quality. Hence, it is **identified for release in South zone states of Andhra Pradesh, Karnataka and Tamil Nadu under Irrigated conditions**.

18. NDLH 2051-1 (Pedigree: HAG 823 X HYPS 152): The *G. hirsutum* variety was sponsored by ANGRAU, Nandyal for identification in South zone under rainfed conditions. The variety recorded 33% yield advantage over zonal check and 42% yield advantage over local check varieties. For diseases, it showed on par reaction with check varieties. It is tolerant to leaf hopper. It has good fibre quality. Hence, it is **identified for release in South zone states of Telangana, Andhra Pradesh, Karnataka and Tamil Nadu under rainfed conditions.**

19. NDLH 2028-2 (Pedigree: NDLH 1938 X TNCBB 05): The *G. hirsutum* variety was sponsored by ANGRAU, Nandyal for identification in South zone under rainfed conditions. The variety recorded 7% yield advantage over zonal check and 1% yield advantage over local check varieties. For pests and diseases, it showed on par reaction with check varieties. It has good fibre quality. Hence, it is **identified for release in South zone states of Telangana, Andhra Pradesh, Karnataka and Tamil Nadu under rainfed conditions.**

20. CNH 1128 (Pedigree: Selection from random mating population): The *G. hirsutum* variety was sponsored by ICAR-CICR, Nagpur for identification in South zone under rainfed conditions. The variety recorded 7% yield advantage over zonal check and 10% yield advantage over local check varieties. For pest and disease, it showed on par incidence. However data on boll damage was not furnished. Hence, the proposal may be **resubmitted with proper data.**

21. PA 837 (Pedigree: PA 415 X PA 183): The *G. arboreum* variety was sponsored by VNMKV, Parbhani for identification in South zone under rainfed conditions. The variety recorded 10.7% yield advantage over zonal check and 112.7% yield advantage over local check varieties. For pests and diseases, it showed on par incidence with check varieties. It has good fibre quality. Hence, it is **identified for release in South zone states of Telangana, Andhra Pradesh, Karnataka and Tamil Nadu under rainfed conditions.**

22. DDCC 1 (Pedigree: Selection from Variable population): The naturally coloured *G. arboreum* variety was sponsored by UAS, Dharwad for identification in South zone under rainfed conditions. The variety recorded -2.9% yield over white linted zonal check variety and 1.3% higher yield over white linted local check varieties. It is better than check varieties for pests and disease reactions. It has average fibre quality and is the first naturally coloured *arboreum* cotton to be identified. Hence, it is **identified for release in South zone states of Telangana, Andhra Pradesh, Karnataka and Tamil Nadu under rainfed conditions.**

23. CNA 405 (Pedigree: IC 440508 X IC 440489): The naturally coloured *G. arboreum* variety was sponsored by ICAR-CICR, Nagpur for identification in South zone under rainfed conditions. The variety is inferior to zonal check, local check and qualifying variety DDCC 1. Hence, it is **not identified.**

24. 16301 DB (Pedigree: Selection from cross involving *G. hirsutum*, *G. raimondii*, *G. barbadense* & *G. thurberi*): The naturally coloured *G. hirsutum* variety was sponsored by ICAR-CICR, Nagpur for identification in South zone under rainfed conditions. The variety recorded 11.7% yield over white linted zonal check variety. It is on par with check varieties for pests and disease reactions. It has average fibre quality and is the first naturally coloured *hirsutum* cotton submitted for identification. Hence, it is **identified for release in South zone states of Telangana, Andhra Pradesh, Karnataka and Tamil Nadu under rainfed conditions.**

List of Participants attended the VIC meeting of Non Bt Varieties/ hybrids of cotton on 09/04/2021 through Video Conference:

Name and Designation	Status in the Committee	Present/ Absent
Dr. Tilak Raj Sharma , Deputy Director General (CS), ICAR, New Delhi	Chairman	Present
Agricultural Commissioner (Department of Agriculture), GOI/ his nominee	Member	Absent
Dr. R.K. Singh , Assistant Director General (Commercial Crops), ICAR, New Delhi	Member	Present
Dr. D.K. Yadava , Assistant Director General (Seeds), ICAR, New Delhi	Member	Present
Dr. V.K. Kharche , Director of Research, Dr. PDKV, Akola	Member	Present
Dr Sanjay kumar , Director, IISS, Mau	Member	Present
Dr. Sujata Saxena , Director, ICAR-CIRCOT, Mumbai	Member	Present
Sh Dilip Zende , Director, Quality control & inputs, Govt. of Maharashtra	Member	Present
Dr Milind Challawar , Head, Cotton Breeding, M/s Rallis India Ltd., Representative from the Private Seed Industry	Member	Present
Sh Pankaj D. Mepani , M/s Shree Corpotation: Representative from the textile Industry	Member	Present
Sh. M.L. Arora , Director (Commercial), NSC, New Delhi	Member	Present
Dr Y. G. Prasad , Director, ICAR-CICR, Nagpur	Special Invitee	Present
Dr. A. H. Prakash , Project Coordinator (Cotton Improvement)	Member Secretary	Present
Dr. S. Manickam , Principal Investigator (Plant Breeding), AICRP on Cotton	Resource Person	Present
Dr. K. Sankaranarayanan , Principal Investigator (Agronomy), AICRP on Cotton	Resource Person	Present
Dr. Rishikumar , Principal Investigator (Entomology), AICRP on Cotton	Resource Person	Present
Dr. S.K. Sain , Principal Investigator (Pathology), AICRP on Cotton	Resource Person	Present
Dr. P. K Mandhyan , Principal Investigator (Fibre Technology) AICRP on Cotton	Resource Person	Present