

## Central Institute for Cotton Research, Nagpur

### Fourth Weekly Advisory for Cotton Cultivation 23<sup>rd</sup> -27<sup>th</sup> June 2013

"The advisory is based on inputs received from the State Agricultural Universities of the respective states"

**Weed management:** Wherever grassy weeds have emerged prior to sowing, glyphosate may be used as directed spray to kill the weeds and sowing may be taken up a few hours later. Pendimethalin may be used as a pre-emergence weedicide prior to sowing or within a week after sowing, to reduce the problem of weeds during the season.

**Water logging:** Cotton is very sensitive to excess water condition. In many parts of Central and South India, water logging can be problematic due to excess rains. Provide adequate drainage channels or water ways (particularly in heavy soils) along the slope of the land for draining excess water under heavy rainfall situations. For better soil moisture conservation, preferably in areas where rainfall is 700-900mm, the land can be reshaped into ridges and furrows with the help of a ridge plough or a bund former. This technique and sowing cotton on ridges would conserve rainwater and the furrows acts drainage channels whenever heavy rains are received particularly in heavy clays.

#### NORTH INDIA

Maximum temperature in the 23<sup>rd</sup> SPW June was comparatively less than last week. It varied from 36 °C to 38 °C in the zone and the wind speed was medium to fast. Punjab and Haryana received pre-monsoon showers which are beneficial for early crop growth. Farmers are advised to apply fertilizer where there were good rains. Crop is in good condition by this time with better plant stand in comparison to last year. In Rajasthan Insect- pest incidence has not been observed in the current week. Very low incidence of thrips and whitefly has been recorded. Though population of thrips has been noticed in Haryana and Punjab on cotton, it is below economic threshold level. Irrigation can be applied if the crop has attained 5-6 weeks and farmers are advised to do thinning.

#### Punjab

Cotton crop is in vegetative stage. Farmers are suggested to drain out the excessive water from cotton fields and do thinning of the crop, Apply one dose of nitrogen fertilizer and remove any weeds from the crop. The maximum temperature of 39.0 °C, minimum of 27.2°C and 126.8 mm rainfall (mean for 7.6.2013 to 14.6.2013) has been recorded at weather observatory of PAU, Regional Station, Bathinda.

#### Haryana

In Haryana, maximum temperature varied from 41.4°C to 44.4°C and minimum temperature varied from 27.1°C to 29.9 °C with 48 to 71 per cent relative humidity. The average wind speed recorded from 4.1 to 10.6 km/ha. Most of the sowing of cotton crop has been completed in the State. Farmers are advised to do gap filling preferably by same variety/hybrid, thinning may be done if required, Weeding and hoeing if required to control weeds and to conserve moisture, Mild attack of thrips and white fly on seedlings but no need to spray, Mild incidence of Cotton Leaf Curl virus disease would occur.

#### Rajasthan

Cotton is in early growth stage. No pest incidence in this region.

#### Uttar Pradesh

Crop is in vegetative stage. Farmers are advised to remove the weeds in the cotton fields and apply irrigation after 25-30 days of sowing. Apply 18g Steptocycline+1.5 kg blitox 75% WP in sufficient water for controlling, bacterial and fungal diseases.

## CENTRAL INDIA

### Gujarat

Maximum and minimum temperature during the last week was 38.0°C and 29.0°C respectively. Relative humidity varied between 75 to 100 per cent. 279mm of rainfall was received. Sowing of cotton should be done within a short period as soon as possible.

### Madhya Pradesh

Seasonal rainfall i.e. pre monsoon shower of 131.85 mm has been received since June 1<sup>st</sup> 2013 in the region. Max. Temp is around 31.5 ° while Min. Temp. is about 25 °C with around 80% relative humidity in the week. Crop condition in irrigated cotton is satisfactory and pre monsoon showers with reduction in temperature are supportive for crop conditions in irrigated areas. Field preparation i.e. final tillage operation is in progress and sowing in rainfed based system is still awaited for onset of monsoon for assured crop stand. Dry sowing in some pockets is in progress. Sucking pests are observed in irrigated areas.

### Maharashtra

The rainfall received at Akola was 81mm up to 14<sup>th</sup> June. Rainfall is sufficient for monsoon sowing. Spacing for desi variety and AKH 081 60x15 cm, *G. hirsutum* 60 X30cm and rainfed Bt and non Bt should be sown at 90X45 cm and irrigated at 120X30 or 45 cm. Fertilizer for rainfed Bt and non Bt 60:30:30 kg NPK, irrigated Bt 120:60:60 and non Bt 100:50:50 NPK kg/ha N should be split in three times (40 kg at sowing, 40kg at 30DAS and 40 kg at 60 days after sowing. P and K should be applied as basal. Fertilizer for desi 49:20:20 and hirsutum varieties 50:25:25 kg NPK should be applied. N should be 50 per cent at sowing and 50 per cent 30 DAS as per moisture availability.

### Odisha

According to IMD, New Delhi 72 mm rainfall is expected during the next five days period. Sky will remain partially to fully cloudy on all five days. Wind will blow from S-W and S-E direction with speed of 06-08 km/hr. Maximum temperature will remain at 24-32°C and minimum temperature will remain at 21-23°C. Maximum RH will be between 79 to 89% and minimum RH will vary between 47 to 68%. Total rainfall of 72 mm is expected during this five days period. As monsoon has already set in, sowing of cotton may be started. Select uplands having more than 60 cm depth of moderately heavy to heavy soil. Prepare the land thoroughly with MB plough. Adopt a spacing of 90cmX60 cm. Ensure that the seeds are treated with imidachloprid (Gaucho) before sowing. Apply FYM @ 5t/ha at final land preparation. Apply fertilizers @ 90:45:45 kg/ha for varieties and 120:60:60 kg/ha for hybrids. Use 100% P<sub>2</sub>O<sub>5</sub>, 25% N and 50% K<sub>2</sub>O as basal dose. Adjust the dose as per the soil test values. For green manuring, sow sunhemp seeds @ 25 kg/ha at the time of sowing of cotton. For weed management, apply Pendimethalin @ 1.0 kg/ha as pre-emergence spray 1 day after sowing.

## SOUTH INDIA

### Andhra Pradesh

For acid delinting, seed should be treated with 80-100 ml H<sub>2</sub> SO<sub>4</sub> per kg of seed for 2-3 minutes followed by lime solution and thorough washing with water 2-3 times to make the seed acid free. Seed treatment with appropriate insecticide(s); imidacloprid 70 WS @ 5.0 g or thiomethoxam 70 WS @ 4.0 g or imidacloprid 48 FS @ 9.0 ml or carbosulfan 25 DS @ 40.0 g/kg of seed. Followed by, treatment with *Pseudomonas fluorescens* @ 10.0 g or *Trichoderma viridae* @ 8.0 g or *T. hargianum* @ 8.0 g or carbendazim 50 WP @ 2.0 g or mancozeb 75 WP @ 3.0 g or captan 50 WP 3.0 g or thiram 75 WP @ 3.0 g/kg of seed. The spacing for desi Cotton Varieties(cm) is 60 x 30; American Cotton Varieties (cm): 90 x 60 or 105 x 60, Conventional Hybrids (cm): 90 x 60 or 120 x 60 and Bt. Cotton Hybrids (cm): 90 x 45 or 90 x 60 or 120 x 45 or 120 x 60. Pre-emergence application of pendimethalin @ 1.3-2 l/acre within 24-36 hours of sowing and Inter cropping in cotton with greengram/ blackgram/ cowpea/ cluster bean/ foxtail millet in 1:2 or 1:3 and pigeonpea 4:1 or 6:1 or 8:1 is recommended

### Karnataka

A total of 127.0 mm rainfall received during the month of May in seven rainy days at ARS, Dharwad helped in land preparation for cotton cultivation. The cotton growing districts of Karnataka mainly Dharwad, Belgaum, Haveri, Davanagere, Chitradurga, Raichur, Bagalakot and parts of Mysore, Bangalore and Gulbarga have also received sufficient rainfall for the land preparation. Sowing of Bt cotton has commenced in Davanagere, Mysore and Chitradurga districts during the last week of May and almost completed during this week. Sowing is started during this week in Haveri, Dharwad, Raichur, Bagalakot and Belgaum districts. It is advised to sow Bt cotton (H x H) at a spacing of 90 cm x 60 cm and H x B varieties at 120 cm x 60 cm. Bt hybrid suitable for the particular locality has to be sown and the seeds to be purchased from the authorised dealer with authentic cash bill with all details of the seeds purchased. Apply fertiliser dose of 100:50:50 NPK kg/ha of which 25 % N & K and entire P fertilizers has to be applied basally at the time of sowing. Apply the remaining N & K as top dressing in 3 equal splits i.e. 25% N & K each at 30, 50 and 70 DAS. Spray Pendimethalin 30 EC weedicide @ 3-4 ml/lit of water on the soil to control the weeds up to 30 days. A spray mixture of 750 lit has to be sprayed on the soil for effective weed control. It is advised to maintain required plant population by filling the gaps with Bt cotton seeds only. Sow the seeds of Red gram or Non Bt cotton given with Bt cotton seeds around the Bt cotton crop without fail. Sowing is under progress in Haveri, Dharwad, Raichur, Bagalakot and Belgaum districts. Dibble Bt cotton (H x H) at a spacing of 90 cm x 60 cm and H x B varieties at 120 cm x 60 cm. One or two rows of Bendi crop has to be sown around the Bt cotton plot and also with Bt cotton in 10:1 row proportion as "Trap Crop" to minimise the shoot weevil attack. One or two rows of Maize crop may also be grown around the Bt cotton plot as "Feast Crop" to increase the population of predators that control sucking pest on Bt cotton. Apply fertiliser dose of 100:50:50 NPK kg/ha of which 25% N & K and entire P fertilizers has to be applied basally at the time of sowing. Apply the remaining N & K as top dressing in 3 equal splits i.e. 25% N & K each at 30, 45 and 60 DAS. Spray Pendimethalin 30 EC weedicide @ 3-4 ml/lit of water on the soil to control the weeds up to 30 days. It is advised to maintain required plant population by filling the gaps with Bt cotton seeds only. Short duration crops like green gram (1:1), peas (1:1), beans (1:1) and coriander (1:2) may be taken up as an intercrops with Bt cotton.

### Tamil Nadu

In the summer irrigated zones of Tamil Nadu (Parts of Tirunelveli, Virudhunagar, Ramanathapuram and Madurai District) the cotton crop is in boll development stage. The weather prevailed during the reporting period was moderately cool and mild wind with small quantity of rainfall was observed. Nipping may be recommended for 75- 80 DAS on 15<sup>th</sup> node for varieties and 85- 90 DAS on 20<sup>th</sup> node for hybrids to arrest the terminal growth. Need based plant protection measures may be followed where boll worm incidence appeared in some areas.

*=== End of the Report ===*