

## Central Institute for Cotton Research, Nagpur

### Sixth Weekly Advisory for Cotton Cultivation 7<sup>th</sup> -13<sup>th</sup> July 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.

Clean cultivation is crucial for a healthy crop. Generally all weedicides are effective on younger (less than 10-15 days old) weeds, especially grasses. For grassy weeds, Quizalofop ethyl, Fenaxoprop ethyl, fluzafop butyl, can be used. For sedges and grasses, Propquizafop ethyl is effective and Pyriithobac sodium is effective on broad leaf weeds. Farmers may consult the technical experts of the Agricultural Universities for further details.

**Water logging:** Cotton is very sensitive to excess water. In many parts of Central and South India, water logging can be problematic due to excess rains. Cotton grown on deep black soils and ill drained conditions is worst affected due to water logging. 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.

Drainage channels must be opened up along the field borders so that excess water is removed from the fields. If sowing hasn't yet been completed, it is strongly recommended that to take up sowing immediately on ridges and furrows by planting on top of ridges. Heavy rains will not affect the crop because the furrows will drain away excess water. Apply fertilizers if the crop becomes pale due to water logging. If heavy rains are forecast, fertilizer application may be postponed so as to prevent losses due to surface run-off.

#### **NORTH INDIA**

Crop is in early growth stage. There was no rainfall during the week and weather was cloudy. Prevailing hot and humid conditions may cause the population buildup of whitefly hence farmers are advised to monitor their fields and check for appearance of CLCuD symptoms. In case of population crossing ETL or appearance of CLCuD symptoms, the recommended insecticides may be sprayed. Application of first dose of nitrogen has been suggested to the farmers. Incidence of root-rot has also been noticed at many locations. Farmers were advised to drench the affected spot with Bavistin @ 2g/liter of water. Thrips attack has been observed in some pockets but they do not cause economic damage. Leafhopper infestation has started and farmers are advised to go for spray if the damage crosses ETL of 2<sup>nd</sup> injury grade (curling and yellowing of leaves in upper canopy of plant). Incidence of painted bug has been noticed in Rajasthan.

#### **Haryana**

The sowing of cotton is completed in Haryana and crop is in early vegetative phase. In general, the crop is healthy. Incidence of sucking pest i.e. leaf hopper, whitefly and thrips were observed below the economic threshold. The maximum temperature varied from 38.0°C to 41.0°C and minimum temperature varied from 28 °C to 31.9 °C with 52 to 79 per cent relative humidity. The average wind speed recorded from 6.2 to 13.3 km/h. From 3<sup>rd</sup> July to 8<sup>th</sup> July "2013, there is possibility of variable and partly clouds during the period. Light

rain with moderate winds may occur at isolated places from 5<sup>th</sup> July to 7<sup>th</sup> July. The maximum temperature may be 27 °C to 30 °C during the period with the average wind speed ranging from 8-12 km/h. The leaf hopper population may increase if rains occur and mean relative humidity will be above 70 per cent. Incidence of cotton leaf curl virus disease was observed in Majod village of Hansi block in Hisar district. Nimbecidene @ 5 ml/L of water may be sprayed for the vector management to avoid further infestation. Hoeing should be done to control weeds and for conserving the moisture. Farmers are advised to monitor their crop for insect pests and diseases.

### Rajasthan

At Sriganganagar, the crop is at early growth stage with maximum temperature of 40 °C to 43 °C and minimum temperature of 33 °C to 34 °C coupled with cloudy weather. Occurrence of jassids and white fly was observed in the fields of cotton crop. No incidence of cotton diseases. At Banswara, the weather during next 4 days would be stable with clouds. Drizzling to normal rains up to 2-6 mm rains is expected during all the four days. Farmers are advised to go for sowing. Farmers are also advised to essentially go for seed treatment before sowing.

### Uttar Pradesh

Crop stage is in vegetative stage to square formation. Farmers are advised to remove the weeds in the cotton fields.

## CENTRAL INDIA

### Madhya Pradesh

At Indore, total rainfall in the week was 389 mm. Seasonal rainfall of about 775 mm was been received since June 1<sup>st</sup> 2013 in the region. Max. Temp between 25 °C to 30 °C and Minimum Temp. between 20.5-23.5 °C with Relative humidity around 79 to 92 per cent was observed in the week. Heavy rainfall was reported in western M.P. In Indore region 342 mm rain was reported within 24 hours on 4<sup>th</sup> July 2013. In adjoining districts, 177 to 254 mm rain was reported within 24 hours on same day. Crop condition was satisfactory and damage is not reported till today. Farmers are advised to take care of crop to look after the drainage system and drain out the excess water from field.

At Khandwa, About 600 mm rainfall was received so far. The condition of summer sown as well as normal sown crop is satisfactory. Gap filling (with the Bt brand sown) and thinning operations may be performed in normal crop as per requirement. Gap filling should not be done with the non Bt packet provided with the Bt hybrid. Fertilizer application is required in one month old summer crop. Inter culture and weeding operations are also required in both crops as per field conditions. There is no pest and disease problem.

### Maharashtra

The rainfall received at Akola was 289mm up to 3rd July 2013. The gap filling should be done within in 10 days after germination. Thinning should be done wherever necessary. First hoeing followed by weeding should be taken up. Farmers who have taken up high density planting system of cotton in Maharashtra are advised against thinning. When the sky is clear it is advised that farmers take up interculture operations in these fields.

Total rainfall received in 25<sup>th</sup> and 26<sup>th</sup> MW at MPKV, Rahuri centre was 33.2 mm which is not sufficient for sowing of cotton but at some locations where sowing was undertaken, it can somehow mitigate the demand of water for cotton crop.

### Odisha

According to IMD, New Delhi 62 mm rainfall is expected during the next five days period. Sky will remain over cloudy on all five days. Wind will blow from S-W direction with speed of 07-11 km/hr. Maximum temperature will

remain at 30-31°C and minimum temperature will remain at 22-23°C. Maximum RH will be between 80 to 86% and minimum RH will vary between 51 to 54 per cent. Total rainfall of 62 mm is expected during this five days period. As monsoon has already set in, sowing of cotton may be started. For weed management, apply pendimethalin @ 1.0 kg/ha as pre-emergence spray 1 day after sowing. Grow arhar as an intercrop in cotton at 8:2 row ratio(cotton : arhar) for more profit and soil health management. Trap crops like castor (for Spodoptera), marigold(for boll worms) and cowpea (for aphids) may be planted at regular intervals around the cotton field. Raise seedlings in leaf pots or polythene bags in the field itself for gap filling.

## SOUTH INDIA

### Andhra Pradesh

Sowings were completed to an extent of 60-90 per cent area in some of the Telangana districts of Andhra Pradesh. Preparatory cultivation is completed and sowings were done in 20-30 per cent upland areas of Krishna, Guntur and Prakasam districts. The crop sown in these areas is suffering to some extent due to the prevailing dry conditions. Farmers are repeatedly advised and emphasis is given to select the Bt. cotton hybrids which are being cultivated and found suitable for their locations for the last 3-4 years.

### Karnataka

Sowing of Bt cotton can be continued till July first fortnight in all districts of cotton growing region of Karnataka. Intra-specific Bt hybrids of cotton (H x H) to be sown at a spacing of 90 cm x 60 cm and interspecific Bt hybrids of cotton (H x B) at 120 cm x 60 cm. Refugia crop seeds of Red gram or Non Bt cotton given with Bt cotton seeds should be sown around the Bt cotton crop without fail. One or two rows of Bhendi 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. 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 immediately after sowing of cotton on the soil to control the weeds up to 30 days. Crop should be weed free up to 60 days of sowing for better growth. To control monocot weeds in the standing crop of cotton of 30 days old, it is advised to take up Quizolopof ethyl (Targa Super) weedicide spray @ 1 ml/lit of water. Crop should be monitored for the attack of sucking pests and shoot weevil in 30-35 days old cotton crop and in case of attack, suitable protection measures has to be taken.

### 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 and maturity stage. Harvesting of kapas is in progress. The weather prevailed during the reporting period was dry with mild wind. Boll worm and sucking insects incidence was noticed in some areas for which need based plant protection measures may be followed based on the economic threshed level.

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