

Central Institute for Cotton Research, Nagpur

Seventh Weekly Advisory for Cotton Cultivation 14th – 20th 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 Pyriithiobac 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

Maximum temperature in the zone was 42 °C and there were no rains in Rajasthan, though Punjab and Haryana received rains for one or two days sufficient for one irrigation. There was buildup of whitefly population due to continued hot and humid conditions, so 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. As an insecticide resistance management strategy and to conserve the natural enemies, first spray of Neem oil @ 1.0 litre/ acre can be applied to suppress the population of sucking pests especially whitefly. Thrips attack population persists but below economic damage. Leaf hopper infestation has started and farmers are advised to go for spray if the damage crosses ETL of 2nd injury grade (curling and yellowing of leaves in upper canopy of plant). If parawilt symptoms appear, affected plants can be sprayed with Cobalt chloride (10 mg/litre of water). Second dose of nitrogen fertilizer can be applied if vegetative growth has reached its peak. In conventional cotton, incidence of bollworm (especially spotted bollworm) has been noticed. Under HDPS, the sucking pest status is at par with the crop sown under normal spacing.

Punjab

The cotton crop is at vegetative to square formation stage. Due to prevailing hot and humid conditions, the occurrence of jassids and white fly has been observed in the fields of cotton crop though the infestation is below economic threshold level. In case the population crosses ETL, the recommended insecticides may be

sprayed. Parawilt symptoms are noticed in some fields after rains which can be cured by spraying Cobalt chloride @10mg/litre (10ppm) on affected plant within few hours of onset of symptoms. The maximum temperature of 35.9°C, minimum of 27.3°C and 24.9 mm rainfall (mean for 06.07.2013 to 12.7.2013) has been recorded at weather observatory of PAU, Regional Station, Bathinda.

Haryana

In Haryana during preceding week (5th -9th July) variable weather and 81.8 mm rain was observed. Maximum temperature varied from 36.0 to 39.4 °C and minimum temperature varied from 25.2 to 29.5 °C with 72 to 89 per cent relative humidity. The average wind speed recorded from 6.7 to 13.3 km/h. From 10th July to 15th July, 2013 there is possibility of variable and partly clouds during the period. Light rain with moderate winds may occur at isolated places on 12th or 13th July. The maximum temperature may vary between 35-38 °C and minimum temperature may be 25-28 °C during the period, the average wind speed ranging from 6-4 km/h. In general, the crop is healthy and in vegetative phase. Incidence of sucking pest i.e. leaf hopper, whitefly and thrip was observed below the economy threshold. However in village Barwala of Hisar district, whitefly population was observed above economy threshold. The leaf hopper population may increase if rains occurs 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. Intercultural operations 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 Sriganagar, cotton is in early growth stage with a maximum of 42 °C and minimum of 34 °C with moderate to high clouds. Occurrence of jassid and white fly is observed in the fields. No incidence of cotton diseases. At Banswara, the weather during next 4 days would be stable with clouds. Drizzling to normal rains up to 5-7 mm rains is expected during all the four days. Farmers are advised to complete sowing. Farmers are also advised to essentially go for seed treatment before sowing and to go for weeding and interculture operation in

Uttar Pradesh

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

CENTRAL INDIA

Gujarat

At Junagadh, total rainfall of 39.7 mm with four rainy days were observed during the week. Germination in all the experiments was quite good and satisfactory. However, necessary gap filling was done to maintain proper plant stand. Initial crop condition was very good and satisfactory due to timely rainfall.

Madhya Pradesh

At Khandwa, about 650 mm rainfall has been received so far. There is further forecast of rains during this week. In general, the crop condition is good. Cultivators are advised for inter culture and weeding operations with kolpadora. They are also advised for fertilizers operations as per requirement.

At Indore, total rainfall in the week was 1.7 mm. Max. Temp between 23.0 to 30 ° C and Minimum Temp. of 21.0 to 22.0 °C with relative humidity around 75 per cent was recorded. Weather was almost clear. Crop condition is very good and no damage reported till date. Farmers are advised to apply fertilizers in irrigated cotton sown in the month of May. Intercultural operations are advised as and when weather condition is favourable.

Maharashtra

At Akola, the rainfall received at first hoeing, weeding should be taken up. If fertilizer is not applied, basal dose should be applied immediately after weeding. If continuous rains are there, Quizolofop-ethyl should be sprayed as post emergence weedicide during 20 to 40 DAS.

Odisha

According to IMD, New Delhi 94 mm rainfall is expected during the next five days period. Sky will remain mainly cloudy on all these days. Wind will blow from S-W direction with speed of 08-09 km/hr. Maximum temperature will remain at 27-31°C and minimum temperature will remain at 22°C. Maximum RH will be between 86 to 93% and minimum RH will vary between 50 to 73 per cent. Total rainfall of 94 mm is expected during this five days period. Sowing of cotton may be completed as soon as possible. Excess water should be drained out from the field.

SOUTH INDIA

Andhra Pradesh

Most of the sowings were completed in Telangana districts of Andhra Pradesh. Rainfall received during the week facilitated sowings in 60-80 per cent of the upland areas of Krishna, Guntur and Prakasam districts. 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. Pre-emergence application of Pendimethalin 30 EC @ 1.3-2.0 l/acre within 24-36 hours of sowing is recommended. 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, Inter cultivation by working with guntaka and gorru at 20-25 DAS is recommended and first split application of fertilizers i.e. 40-50 kg urea and 10-15 kg Murate of Potash at 25-30 DAS are recommended.

Karnataka

Sowing of Bt cotton may be continued till 20th July in all districts of cotton growing region of Karnataka under late receipt of rainfall conditions. 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. Early sown Bt cotton crop has to be top dressed (30 days after sowing) with 25 kg N/ha (i.e. 50 kg Urea/ha) & 12 kg K (20 kg MOP/ha). Sowing of desi cotton varieties like Jayadhar/DDHC-11/RAHS-14 may be taken up till July end. To control monocots weeds in the standing crop of Bt cotton of 30 days old, it is advised to take up Quizolofopethyl weedicide spray @ 1 ml/lit of water. Advised to drain out the excess water from the cotton fields wherever continuous and heavy rainfall has occurred as the crop is sensitive to water logging. Under cloudy and drizzling conditions, snails are damaging the cotton seedlings in some areas. It is advised baiting with 2% Metaldehyde (Snail kill) @ 12.5 kg/ha and it is to be applied at the hideouts of the snails, on the bunds and to the soil around the crop where the damage is seen. Under severe infestation, the snails can be collected manually from the surface of the soil/crop and destroyed.

Tamil Nadu

In the summer irrigated zones of Tamil Nadu (Parts of Tirunelveli, Virudhunagar, Ramanathapuram and Madurai District) the cotton crop is in boll maturity stage. Harvesting of kapas is in progress. The weather prevailed during the reporting period was dry with mild wind. Mild breeze was observed in western part of Virudhunagar and Tirunelveli Districts. 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. Cloudy

weather continued in most part of cotton growing area of Tamil Nadu. Preparatory cultivation is in progress for winter irrigated cotton sowing.

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