

Central Institute for Cotton Research

Fifth Weekly Advisory for Cotton Cultivation: 20 to 27 August 2012

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

NORTH INDIA

Punjab

The cotton crop is around 90-100 days and at peak boll development stage. The infestation of sucking pests' i. e. white fly and jassid has been noticed. It is advised that if whitefly increases more than 6adults/leaf, then 600ml Triazophos 40EC or 800 ml Ethion 50 EC per acre may be sprayed. The infestation of jassid may be controlled by spraying Confidor or Imidacel @ 40 ml/acre for jassid or Actara/Extra super 25 WG @ 40 g/acre. Apply 33 kg urea/acre to varieties and 65 kg urea/acre to hybrids on the initiating of flowering. Apply 4 sprays of 2 % Multi -K (potassium nitrate (13-0-45) at weekly intervals, starting at flower initiation to enhance seed cotton yield. If Parawilt symptoms occur after irrigation or rains, spray cobalt chloride @ 10mg/litre (10ppm) on affected plant within few hours of onset of symptoms.

Harayana

In general, the crop condition is good. However in certain fields, water stress was observed due to weak monsoon in the month of August. Weeding and interculture must be carried out for clean cultivation. Detopping is recommended in *desi* cotton. Whitefly and leaf hopper infestation was observed below economic threshold level. At some places mealy bug infestation has also been noticed, Farmers were advised to spray either neem oil or trizophos 40EC @ 600ml/acre for the management of sucking pests. For the fields where incidence of mealybug has been noticed the localized spray of Acephate/Buprofezin can be applied. During this week, the leaf hopper population on cotton may increase if rains occur frequently and mean relative humidity remains above 70 per cent. However, the whitefly population is likely to remain at low to moderate levels. To control whitefly, Nimbecidene @ 1 litre/acre may be sprayed at weekly intervals. The present weather conditions are also favourable for build-up of red hairy caterpillar. Therefore, wherever this pest is a problem, particularly in the sandy areas, recommended insecticide may be sprayed for its control. If foliar diseases appears, spray streptomycin (6 g) plus copper oxychloride (600 g) in 150 L water per acre. In root rot disease patches, soil drenching with carbendazim solution @ 2 g/l water can further stop the spread of the disease. If heavy rain occurs, proper drainage is required. Farmers are advised to monitor their crop for insect pests and diseases regularly.

Rajasthan

Desi cotton is in the square formation stage and American cotton is in the peak flowering and boll development stage. The Desi cotton is infested with spotted boll worms and should be effectively controlled. The American cotton is infested with whitefly, jassids and thrips. Farmers are advised to spray insecticides like Imidacloprid @ 0.5 ml per litre of water or Thiomethaxon @ 0.5 g per Lit of water or Difenthiuron @ 0.5 g per Lit of water against sucking pests

CENTRAL INDIA

Madhya Pradesh

Due to continuous rains since last week (from 10th Aug), field conditions are not congenial for weeding and intercultural operations. Cultivators are advised to pay proper attention on drainage in water logged fields. Attack of

sucking pests have been noticed in the field. Farmers are advised to spray insecticides like Imidacloprid @ 0.5 ml per litre of water or Thiomethaxon @ 0.5 g per Lit of water or Difenthiuron @ 0.5 g per Lit of water against sucking pests like jassids, aphids and white fly as and when weather permits. Rain showers are still there and the weather conditions are favorable for pests and diseases.

Gujarat

In some part of State, rainfall occurred, however it is dry in most of the areas. Jassids and thrips infestations are also seen in the crop. In the non-Bt cotton, sporadic infestation of *Spodoptera litura* was observed. Quinalphos or Thiodicarb can be applied to manage insect pests wherever damage has increased beyond 2-grade for sucking pests and 5-10% or more damage to fruiting parts has occurred. Appropriate measures may be suggested to protect the crop

Maharashtra

Pre-seasonal irrigated cotton in Marathwada region is in flowering stage. If second top dressing of nitrogen is not applied, it should be applied @ 60 kg N/ha. Infestation of jassids and thrips is noticed in the region. Spray of Imidacloprid 17.8 SL @ 4 ml/10 lit. or Fipronil 5 SC @ 20 ml/10 lit. should be sprayed considering ETL. Spray of Magnesium sulphate @ 0.2% should be undertaken during flowering and boll formation stage.

Rainfed cotton is in square formation stage. First top dressing of nitrogen should be done @ 36 kg N/ha, one month after sowing. Spray of 2% urea / DAP and MgSO₄ should be undertaken during square formation stage. Spray of Diamethoate 30 EC @ 10 ml/10 lit. or Acetamiprid 20 SP @ 2 g/10 lit. may be done considering ETL for aphids and jassid infestation. Weeding and intercultural operations should be carried out for effective weed management.

Rainfall at Akola Centre 423 mm was received up to 16th Aug. Intercultural operations should be taken in rain free period. Sucking pest (Jassids, Aphids & Thrips) observed during last week. Farmers should take up spray of Dimethoate 30EC 10 ml or Acetamipride 20 WP 1.5g Methyl Demeton @ 8 ml in 10Ltr of water. If leaf spots observed, add 25g copper-oxy-chloride alongwith insecticide solution.

The crops in the region is irrigated and is in the reproductive stage. There is biotic stress observed- The regions where there is intermittent rainfall viz: Jalgaon, Dhule, Pune districts of MPKV, Rahuri jurisdiction, there may be possibility of the incidence of fungal foliar disease and bacterial blight. As a precautionary measure, it is essential to undertake 2-3 Sprays of (Copper oxichloride 25 gm + Streptocyclin 1 gm)/10 lit. of water, where the crop is at square formation stage.

The sowing of Bt. cotton before 20th May (2nd fortnight of May) is suffering from Para wilt incidence. The Para wilt syndrome may be rectified to some extent by drenching of 100-150 ml solution containing Urea(1.5 %) + Potash 1.5 %) followed by drenching of DAP (2%) at 15 days in same manner to affected plants. For good results, drenching treatment followed by light irrigation should be given. Also, it is advised to drain out excess water saturated in fields of cotton.

Control measures for aphids, thrips, jassids and white flies Acepate 75 WP -1000 g/ha, i.e.20 g/10 lit. of water or Acepate 75 WP -15 g+ Dimethoate 30 EC 20 ml /10 lit of water or Acepate 75 WP -15 g+ Imidachloprid 17.8 SL 5 ml/ 10 lit of water. Only for white flies Acetamiprid 20 SP 200/ha i.e.4 g/10 lit of water Considering reproductive stage (31st, 32nd and 33rd Met. Week) it is recommended to irrigate the cotton field by alternate furrow. Use sprinkler or drip irrigation wherever possible. 3) Carry out inerculturing operations like hoeing and mulching to cotton field to maintain the moisture in the soil.

Odisha

The cotton crop is at seven to eight week (square and flower formation) stage. Hoeing and earthing up should be done to control weeds. Glyphosate may be sprayed using hood @ 1.0 kg/ha for controlling weeds between the rows. Second top dressing must be done with 25% N Planofix (NAA) hormone may be sprayed @ 2 ml per 9 litres of water to reduce square and flower drop. There is incidence of *Alternaria* blight and Bacterial leaf spot in some places. Spray Mancozeb@2.5 g per one litre of water for *Alternaria* blight and for bacterial leaf spot, spray Steptocycline@0.1g with copper oxychloride 2.5g per one litre water. For reducing the jassid and aphid population, first spraying should be done with neem based pesticide @ 3 ml/litre of water. If the pest population exceeds ETL (for jassids - 2 jassids per leaf and for aphids 15-20% affected plants) spray Thiomethoxam @ 1 g per 3 litres of water. To control *Spodoptera*, spray Chloropyriphos @ 2 ml/lit of water.

SOUTH INDIA

Andhra Pradesh

In Telangana region, the crop is in vegetative to initial flowering stage. Farmers are advised to go for second split application of N&K fertilizers. For the control of sucking pests, stem application with Monocrotophos : Water (1:4) or imidacloprid : Water (1:20) is recommended.

In Coastal region the crop is in early vegetative stage and advised first split application of N&K fertilizers. Post emergence herbicide application of Quizalofop ethyl (400ml/acre) and Pyriithiobac sodium (250ml/acre) is recommended for the control of weeds where ever inter cultivation is not possible due to continuous over moisture. Soil drenching of copper oxy chloride for the control of root rot is recommended. Foliar application of N&K in the form of Urea (2%) and Muriate of Potash (1%) is recommended wherever the crop is suffering from over moisture due to continuous rains.

Karnataka

It is advised to take up hand weeding and intercultural operation in cotton which helps in aeration in root zone. Immediate top dressing with urea @ 25 kg/acre is suggested where ever the crop is of 50-60 days old. Suggested for close monitoring of mirid bug in the crop which is at peak square formation stage and advised need based control measures with spraying of Acephate 75 SP @ 1 g/lit of water if the insect is noticed. Foliar spray of 2% urea may be taken up where the crop is at flowering stage and was under continuous soil moisture for more than a week due to drizzling. Advised foliar spray of Planofix (5 ml in 15 lit of water) and 2% DAP or 2% KNO₃ for the crop which is at peak boll formation stage. Where ever cotton crop is at boll formation stage, leaf spot and rotting of early formed lower bolls is expected. Suggested need based protection measures of spraying the crop with Mancozeb 75 WP + Chlorothalonil 70 WP each @ 2 g/lit of water. Manual removal of growing shoot tip (Topping) is advised in interspecific Bt hybrid crop where ever the crop is at 85-90 days old to check the vegetative growth and to reduce the sucking pest infestation.

In northern districts where the crop is under protective irrigation, light irrigation to the crop at an interval of 15-20 days in black soils and 10-15 days in red soils depending upon the weather conditions is suggested. Advised application of fertilizer to desi cotton crop sown during first week of this month @ 40:25:25 N-P-K kg/ha if not applied at sowing.

Thrips population ranged from 1-5/ three leaves. Leafhopper population ranged from 1-4/ three leaves. Aphids population ranged from 1-10 / three leaves. Ash weevil population ranged from 1-2/ plant. Natural enemies (Spiders) were also observed. In general the leafhopper and thrips population is at increasing trend and dry spell weather is continued to be prevailing in this zone and crops in majority of the area experiencing moisture stress.

Tamil Nadu

The harvesting season is completed and hence no advisory for cotton. Dry cloudy weather is continuing during this week also. Winter irrigated cotton sowing has been started in farmers field.

Note: The advisory is based on inputs received from the State Agricultural Universities of the respective states and for queries or clarifications or details, the Project coordinator (cotton), Coimbatore may be contacted.

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