

ICAR-Central Institute for Cotton Research

Weekly Advisory for Cotton Cultivation from 13th -19th June 2016

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

WEATHER ADVISORY

Date MAY	Rainfall (mm) June 2016							ADVISORY
	13	14	15	16	17	18	19	
PUNJAB								Fields should be regularly monitored for whitefly incidence on cotton and weeds. Fields should be kept free of weeds. Whitefly incidence (whitefly adults/leaf) on cotton ranged from 0.4 to 2.20. The mean whitefly incidence (whitefly adults/leaf) on cotton was 0.67 in Behlewala, 0.30 in Dhaab Sher Singh, 2.20 in Ajit Gill and 2.20 in Khara at Faridkot. If there is no rain, farmers should irrigate the crop one month after sowing as high temperature is burning plants. The crop is in seedling stage at most of the parts of Haryana. Hoeing may be done in early sown crop. Farmers are advised to monitor insect-pest populations on weekly basis and spray of chemical insecticides should be delayed as long as possible. Need based application of irrigation should be given. First irrigation is being given in April sown arboreum or hirsutum genotypes and post sowing monitoring are in progress. Weed infestation has been observed in fields applied with first irrigation. The presence of weeds has been noticed at boundaries of fields or in the adjoining areas. At few locations in Sirsa, whitefly ranged between 2 to 11/ 3leaves in and around Sirsa area. Root rot has been observed at few locations in farmers fields in G. arboreum cotton. Farmers are advised to monitor the crop regularly for pest build up. Wherever economic threshold levels have crossed Nimbecidine 300 ppm @ 1 litre/acre in 200 liters of water can be applied. Need based application of neem based insecticides is advised in the specific field harboring population near to ETL . Weeds must be removed after first irrigation. If the fields are having history of root rot and symptoms have appeared, farmers are advised to drench near the collar region of the cotton plant with Carbendazim @1gm/litre.
Bathinda	0	0	0	0	0	0	0	
Ferozepur	0	0	0	0	0	0	0	
Muksar	0	1	0	0	0	0	0	
Mansa	0	2	0	0	0	0	0	
HARYANA								
Sirsa	0	0	0	0	0	0	0	
Hisar	0	1	0	0	0	0	0	
Fatehabad	1	1	0	0	0	0	0	
RAJASTHAN								
Hanumangarh	0	0	0	0	0	0	0	
Sri Ganganagar	0	0	0	0	0	0	0	
Banswara	0	0	0	0	0	0	0	
ORISSA								
Koraput	0	7	20	19	15	20	7	
Kalahandi	0	9	25	21	16	5	9	
Bolangir	0	4	0	30	0	1	2	
GUJARAT								
Amreli	0	0	0	0	0	0	0	
Bhavnagar	0	2	0	0	0	0	0	
Jamnagar	0	0	0	0	0	0	0	
Rajkot	0	0	0	0	0	0	0	
Bharuch	0	0	0	0	0	0	5	
Sabarkantha	0	0	0	0	0	0	0	
Surendranagar	0	0	0	0	0	0	0	
Ahmedabad	0	0	0	0	0	0	0	
Vadodara	0	0	0	0	0	0	20	

Patan	0	0	0	0	0	0	0	
Mehsana	0	0	0	0	0	0	0	
MP								
Khargone	0	0	0	0	0	0	0	Rains are expected from 20th June. Sowing preparations may be done for timely sowing before 25th June. At Khandwa, sowing of cotton is in progress
Dhar	0	0	0	0	0	0	2	
Khandwa	0	0	0	0	0	2	5	
MAHARASHTRA								
Nagpur	0	0	0	1	1	2	3	Good rains are expected in Maharashtra starting from 19-20th June until 4th July. As predicted earlier there is an expected 15 day dry period during July. Ideal sowing time is from 14 to 25th June. Water conservation measures are essential in rainfed farms. Ideal sowing time is last week of June to 1st week of July. Preferred varieties and hybrids for 2016: Short to medium duration varieties such as Suraj, NH-615, AKH-081 or Desi varieties such as Phule Dhanwantary, CICR-Roja, AKA-07 can be selected for cultivation to be dry sown at high density spacing of 45x10 cm or 60x10 cm depending on the recommendations for the varieties, in the second to third week of June. Under the current monsoon predicted conditions, Bt-cotton hybrids tolerant to jassids such as Ankur Jai-Bt, Ankur 3034, Ankur 3028, MRC 7377, MRC 7347, MRC 7383, Ajeet-11, Ajeet-111, Ajeet 155, Rasi 779, Rasi 625, Rasi 656, Mallika, Bunny, Bhakti, Sona, Balwan, Suraksha, Jadoo, KCH-711, KCH-144 may be used. The Bt-hybrid list presented here is only indicative and ICAR-CICR does not in any way endorse their performance. There are many other short duration hybrids which are tolerant to jassids. These may be short listed based on experience of farmers in the region and inquiries made with the seed companies, Long duration Bt-hybrids must be avoided in Maharashtra. These will be damaged by the pink bollworm in November-December. It is important to note that some of the hybrids or varieties listed above can be converted into long duration by wrong practices such as excessive urea at 30-50 days crop growth phase and or insecticide application of monocrotophos, acephate, imidacloprid, thiomethoxam etc., which are known to extend the crop duration.
Wardha	0	0	0	0	0	1	2	Land Preparation for cotton and precautionary measures Proper land preparation before sowing operation is important for a good crop. Poor land preparation results in low germination, uneven crop stand and high weed competition during vegetative growth. Therefore, good land preparation is essential and is considered as a first principle for good agriculture. Cotton cultivation relatively requires early land preparation at the beginning of the rains, and is comprised of sequence of operations as follows: Rainfed and irrigated cotton 1. Manual clearing of stubbles, residues and previous year seed cotton waste. Stubbles and crop residues such as cotton stalks may contain resting stages of insects and disease inoculum. Therefore clean cultivation is essential for a healthier crop. 2. Deep summer ploughing should be done once in 3 years. 3. Harrowing (12-15 cm depth) must be done under dry soil conditions. It prevents the formation of sub soil crusts, water and nutrient losses. Superficial harrowing and too deep harrowing will not help for cotton production. Chiselling of soil breaks the hardpan. 4. A well decomposed farm yard manure (FYM) or compost @ 2-3 tonnes ha ⁻¹ or vermicompost @ 2.5 tonnes ha ⁻¹ application in advance of 10-15 days must be done once in 3-4 years to maintain the soil fertility status. 5. Application of FYM or vermicompost should be followed by Ploughing with mould board 20-25cm depth. It helps in incorporation of
Chandrapur	1	0	2	1	1	3	4	
Yavatmal	0	0	0	0	0	2	5	
Amravati	0	0	0	0	0	0	0	
Akola	0	0	0	0	0	0	0	
Buldhana	0	0	1	1	0	0	0	
Parbhani	0	0	0	0	0	0	102	
Nanded	0	0	0	3	0	9	107	
Beed	2	6	0	0	0	0	75	
Washim	0	0	0	0	0	0	0	
Dhule	0	2	0	0	0	0	5	
Jalgaon	0	0	0	0	0	0	11	
Jalna	0	0	0	0	0	0	27	
Aurangabad	0	0	0	0	0	0	24	

- organic manure and also to break the clods of more than 5 cm of diameter size.
6. For irrigated conditions, FYM or organic manure application should be applied every year @ 2-3 tonnes ha-1.
 7. For irrigated conditions, prepare broad ridges across the slope and sowing to be taken at 3-5 cm depth. After 30 days sowing earthing-up or rectification of ridges should be carried. Land preparation should be done at optimum soil moisture range in black soils.
 8. After the first rain or shower spray pre-emergence herbicide such as Pendimethalin @ 3.5 L ha-1 (1.0 kg a.i. ha-1) over the surface soil.
 9. Blade harrowing (bhakar) for 2-3 times to break the small clods and for loosening of soil could be done with cultivator.
 10. In order to prepare pulverized (15-20 cm depth) and fine-till soil, use rotavator along with tractor.
 11. Smoothing or Levelling (0.6-1.0 %) with a wooden plank (pata) or laser levelling before sowing for good drainage.
 12. Prepare a broad-bed furrow (BBF) system along the topography with 150-180 cm wide bed of 30 cm width furrow and 15cm depth for shallow and medium soils. For deep soils prepare broad permanent ridges (RF) with the help of tractor or plough.
 13. Marker (dattari) will be run as per the required spacing of variety or hybrid.
 14. Basal application of moderate amount of nitrogen and phosphorus fertilizers over the rows. Such as one bag of neem coated urea (50 kg) and six bags of single super phosphate (300 kg) per hectare will be drilled over the marker.
 15. Treat cotton seeds with biofertilizers such as Azotobacter @ 25 gm per kg, Phosphorus solubilizing bacteria (PSB) @ 25 gm per kg and Trichoderma viride @ 8 gm per kg and shade dry for 15-30 minutes. All treated seeds must be sown before 24 hours.
 16. Dry sowing of cotton at 5 cm depth by dibbling or drilling prior to monsoon or after 70-80 mm rainfall will be carried for better germination and uniform crop stand.
 17. After germination of 4-6 days follow the intercultural operations once in a week with inter-row cultivator (daura) up to one month.

Precautionary measures

This year there is a likelihood of heavy rains in mid July. This can cause waterlogging. Predictions indicate a possible dry spell in the first fortnight of July and early cessation of monsoon which can cause stress to the crop at boll formation stage. There are other soil related constraints, especially in black cotton soils. Following precautionary measures are recommended during land preparation to mitigate the above mentioned problems.

Deep and wide cracks and undesirable consistence: It is improved by the excess application of organic manure along with proper tillage at optimum moisture content.

Increased content of calcium carbonate: Soil amendments such as tank silt, ash, pressmud and gypsum applied prior to land preparation. Cultivation of acidifying crops and practices viz., cotton + legumes intercropping system and crop rotation with legumes (falli).

Surface crust formation: Land preparation should be carried with bullock drawn tillage or ploughing equipment. Deep chiselling should be carried up to 50 cm to break soil crust and hardpan.

Severe waterlogging due to poor internal drainage: Land preparation should be done with deep chiselling (50 cm) and smoothing (0.6%). Cotton sowing is taken in broad-bed furrows and permanent broad ridges along with proper internal drainage.

Prolonged dry spells and drought: Organic manure applied in the rhizosphere during vegetative growth. Sunnhemp (Boru) or Sesbania (Dhaincha) mulching should be done 40-45 days after sowing to avoid evapo-transpiration and also provide supplemental irrigation on critical stages (cotton boll formation and development)

TELANGANA								
Adilabad	0	0	0	2	6	15	50	Rains are expected this week. Sowing before 20th June is strongly recommended. Rainfall distribution is likely to be normal, with some dry patches in late in the second half of June and last part of August. Warangal is expected to receive above 800 mm rainfall while other districts are expected to receive 700-750 mm rains during the season. Early maturing short duration varieties or Bt hybrids will be most preferred this season.
Warangal	2	0	0	0	0	35	20	
Khammam	6	0	0	2	3	40	25	
Karimnagar	1	0	4	2	6	50	40	
Nalgonda	2	0	0	0	0	35	20	
AP								
Guntur	6	1	2	0	2	25	8	Good initial rains are expected followed by a possible prolonged dry spell and erratic distribution of monsoon. Moisture conservation techniques must be followed in rainfed fields.
Prakasam	1	0	5	6	5	25	8	
KARNATAKA								
Dharwad	9	7	2	3	7	10	13	Good rains are expected between 18th June to 4th July. Sowing has commenced at Haveri, parts of Dharwad and Belgaum districts. Majority of the area to be sown after receiving the rainfall during first week of June. Sowing yet to commence in majority cotton growing districts. Crop is at seedling stage wherever sown under irrigation. Dribbling of cotton seeds to be undertaken immediately after the good soaking rainfall during first fortnight of June. The seeds to be sown in 90 x 60 cm (intraspecific Bt hybrids) and 120 x 60 cm (interspecific Bt hybrids). Single seed is to be dibbled at each spot. Last 3 to 4 rows should be of refugia cotton seeds. The seeds are to be treated with biocultures like <i>Azospirillum</i> and <i>PSB</i>
Haveri	8	7	4	4	9	12	17	
Mysore	0	2	7	8	6	13	16	
TAMILNADU								
Perambalur	1	2	2	0	0	0	0	Cotton season is yet to commence. Preparatory tillage has been carried out.
Salem	0	2	0	0	0	2	2	
Trichy	0	0	2	0	0	0	0	
virudhunagar	1	0	0	0	0	2	3	

Rainfall (mm)	< 5	5-20	21-50	51-80	> 80
Legend Colour					

0 mm rainfall in the blank spaces

Source: http://nwp.imd.gov.in/bias/dist_fcst.htm

<http://www.accuweather.com/en/in/india-weather>

ICAR-CICR ADVISORY TEAM:

Dr K. R. Kranthi, Dr A. H. Prakash, Dr Sandhya Kranthi, Dr D. Monga, Dr D. Blaise, Dr Sumanbala Singh, Dr Singandhupe, Dr M. V. Venugopalan, Dr A. Isabella, Dr M. Sabesh, Dr Vishlesh Nagrare, Dr Rishi Kumar, Dr Anuradha Narala, Dr Deepak Nagrale, Mrs Sangeeta Aurangabadkar & Ms Sachita Yelekar