ICAR-Central Institute for Cotton Research

Weekly Advisory for Cotton Cultivation from 6th - 12th June 2016

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

WEATHER ADVISORY

	Rainfall (mm) June 2016							ADVISORY
Date MAY	6	7	8	9	10	11	12	
PUNJAB								Sowing is completed at Faridkot. The fields should be regularly monitored for whitefly incidence on cotton and weeds and weed removal should be done properly. Whitefly incidence (whitefly adults/leaf) on cotton ranged from 0.10 to 1.70. The mean whitefly incidence (whitefly adults/leaf) on cotton was 0.14 in Behlewala, 0.10 in Dhaab Sher Singh, 0.20 in Sukhwala, 1.70 in Faridkot Local, 0.64 in Ajit Gill, 0.20 in Kothe Chand Singh, 0.20 in Ukandwalaand 0.15 and 0.63 in Khara. First irrigation should be given to the crop one month after sowing as the high temperature is causing burning of plants. After irrigation, half dose of urea i.e. 65 kg for Bt hybrids and 30 to 35 kg to non bt varieties should be applied. At Sirsa, the crop is at seedling stage to early vegetative stage. First irrigation in April Sown arboreum or hirsutum genotypes and post sowing monitoring are in progress. At few places, farmers have done gap filling/thinning also. Weed infestation has been observed in fields applied with first irrigation. However no weed infestation in the cotton fields that are yet to receive the first irrigation after sowing them. The presence of weeds has been noticed at boundaries of fields or in the adjoining areas. At few locations in Sirsa, whitefly incidence ranged between 0-6/ 3leaves and 2-8/3leaves in hirsutum cotton in Punjab in a survey conducted in the adjoining areas. The root rot has been observed at few locations at farmers' fields in arboreum cotton. Farmers are advised to monitor the crop regularly for pest build up. 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 and maintain the sanitation in and around the fields. If the fields are having history of root rot and symptoms have started, farmers are advised to drench near the collar region of the cotton plant with Carbendazim @1gm/litre. Rains are predicted in Punjab, Haryana and Rajasthan during next week from 12-18th June. Whitefly populations will come down after rains. Chemical insecticides must be strictly avoided especially in the absence of economic threshold levels.
Bathinda	0	0	0	0	0	0	0	
Ferozepur	0	0	0	0	0	0	0	
Muktsar	0	0	0	0	0	0	0	
Mansa	0	0	0	0	0	0	0	
HARYANA								
Sirsa	0	0	0	0	0	0	0	
Hisar	0	0	0	0	0	0	0	
Fatehabad	0	0	0	0	0	0	0	
RAJASTHAN								
Hanumangarh	0	0	0	1	6	3	6	
Sri Ganganagar	0	0	0	1	3	9	12	
Banswara	0	0	0	0	0	0	0	
ORISSA								
Koraput	6	23	30	10	0	3	8	Field preparation is going on availing the pre monsoonal rainfall. They should procure seed of the required hybrids/varieties of cotton well in advance. The pre release varieties of OUAT BS 279 and BS 30 can be taken up for high density planting system.
Kalahandi	3	34	28	11	0	7	6	
Bolangir	0	10	5	0	0	3	0	
GUJARAT								
Amreli	0	0	0	0	0	0	0	Rains are expected in the third week of June. Preparatory arrangements may be made for sowing.
Bhavnagar	0	0	0	0	0	0	0	
Jamnagar	0	0	0	0	0	0	0	Monsoon arrival is likely to be delayed in Jamnagar and Rajkot. Rainfed cotton needs attention especially for water conservation measures. Desi cotton will be the preferred option for rainfed farmers.
Rajkot	0	0	0	0	0	0	0	
Bharuch	0	0	0	0	0	0	0	Rains are expected in the third week of June. Preparatory arrangements may be made for sowing.

Sabarkantha	0	0	0	0	0	0		
Surendranagar	0	0	0	0	0	0	0	Monsoon arrival is likely to be delayed in Surendranagar. Rainfed cotton needs attention especially for water conservation measures. Desi cotton will be the preferred option for rainfed farmers.
Ahmedabad	0	0	0	0	0	0	0	Though rains are predicted in the third week of June, rest of the monsoon predicted distribution is highly erratic. A prolonged dry spell is expected in these districts from thrird week of June to third week of July. This will cause immense seedling stress. Protective irrigation arrangements are a must. Cotton farmers in the rainfed regions must take all possible precautions for moisture conservation such as sowing on ridges and furrows, mulching etc.,
Vadodara	0	0	0	0	0	0	0	
Patan	0	0	0	0	0	0	0	
Mehsana	0	0	0	0	0	0	6	
MP								
Khargone	0	0	0	0	2	3	2	Rains are expected next week. Sowing preparations may be done for timely sowing before 25th June.
Dhar	0	0	1	1	2	2	3	
Khandwa	0	0	3	2	2	2	3	
MAHARASHTRA								
Nagpur	6	1	1	0	6	5	3	Rainfall prediction for the 2016 season in Maharashtra : District-wise monsoon prediction for 90 days has been compiled from www.accuweather.com These predictions keep changing regularly, but provide indications of the distribution pattern and help in taking crop management decisions and precautionary measures for the season. Following is the description of the predicted rainfall patterns in some key cotton growing districts of Maharashtra. Wardha, Nagpur and Chandrapur: Good rainfall of above 830 mm is predicted for the three districts. Rains are expected to arrive in Chandrapur in the second week of June with about 50-60mm rainfall during 5 to 10th June. Light showers are expected in Nagpur and Wardha during the second week of June. Monsoon is expected to arrive in Nagpur and Wardha on the 16th June with 60-70mm rainfall to be received during 15 to 17th June in the three districts. Starting from 23rd June, good rains are expected for two days in each week until 2nd July at about a total of 200mm each in Wardha and Nagpur and about 120 mm in Chandrapur during the ten day period. First fortnight of July is predicted to be dry except for one to two rainy days during the second week. Staring from 18thJuly evenly distributed rains are expected until the third week of August. Thus the three districts are expected to get good rainfall. There is nothing to worry as of now. Early sown crop will be most benefited. Best sowing time is 10-20th June, but crop sown during 10-15th June will benefit the most.
Wardha	6	2	1	2	4	5	4	
Chandrapur	7	0	3	4	7	6	2	
Yavatmal	3	1	2	4	4	10	5	In Yavatmal and Amaravati districts, a total rainfall of about 740 each. During the second and third week of June, mild showers are expected to be unevenly distributed in the two districts with a maximum total of 70-80 mm up to 23rd June when monsoon is expected to arrive. Regularly spaced rains at 4-5 day intervals are expected from 23rd June to 2nd July. A 14 day dry period is expected from 3rd to 17th July except for one or two rainy days during the second week. Starting from the 18th July good rains are predicted all through with intermittent breaks until 22nd August. Overall the season will be good for cotton. Best sowing time is 10-20th June.
Amravati	0	1	1	0	5	6	6	
Akola	0	0	1	2	4	3	4	Akola, Washim and Parbhani: A total of 500-550 mm rain in Parbhani and 610-660 mm rainfall is expected in Akola and Washim. Monsoon is expected to arrive only by 22-23rd June followed by one week moderate rains until 2nd July. There could be one or two mild showers in June in the three districts prior to the onset of monsoon. The first fortnight of July is expected to be dry except for rains on one or two days on 11th or 12th July. Evenly distributed rains are expected during the period 19th July to 14th August. Ideal sowing time is from 14 to 25th June.
Buldhana	0	0	1	2	6	6	3	
Parbhani	4	1	0	0	2	3	10	
Nanded	0	0	0	0	0	3	9	

Beed	3	4	0	0	0	1	2
Washim	3	1	2	3	6	7	8
Dhule	0	0	0	0	0	0	0
Jalgaon	0	0	0	0	0	0	0
Jalna	0	0	0	0	0	1	2
Aurangabad	1	0	0	0	2	1	4

Buldhana, Nanded, Dhule, Jalgaon, Jalna and Aurangabad: Dhule is expected to receive about 650 mm rainfall. Buldhana, Nanded, Jalgaon, Jalna and Aurangabad are expected to get about 500 to 550 mm rainfall during the season. Monsoon is expected to arrive in the last week of June. A total amount of 100-110mm rainfall is expected to be received by each of the districts in the last week of June. Rains are likely to restart again only from mid July and extend to mid August with intermittent brief dry periods. Water conservation measures are essential in rainfed farms. Ideal sowing time is last week of June to 1st week of July.

Beed : Beed is likely to receive very good and evenly distributed rainfall with an expected total of 1000 to 1200 mm. However, rains are likely to terminate by the third week of August. Though there is a possibility of resumption of rains in September, rainwater harvesting and storage is strongly recommended. Early sowing in the first fortnight of June is strongly recommended.

Preferred varieties and hybrids for 2016: In Maharashtra, monsoon is likely to recede early by the end of August with a possibility of another short spell in September in Vidarbha and Marathwada. For such conditions 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 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.

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 inoculums. 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. Chiseling 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 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-tilth 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, press mud 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 chiseling 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 chiseling (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. Sunhemp (Boru) or Sesbania (Dhaincha) mulching should be done 40-45 days after sowing to avoid evapotranspiration and also provide supplemental irrigation on critical stages (cotton boll formation and development).
TELANGANA								
Adilabad	10	16	15	25	28	8	6	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 seond 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	9	6	15	25	10	8	10	
Khammam	17	22	10	18	5	8	10	
Karimnagar	12	16	15	25	10	14	10	

Nalgonda	20	26	12	20	5	3	15	
AP								
Guntur	27	26	40	25	35	30	20	Good initial rains are expected followed by a possible prolonged dry spell and erratic distribution of monsoon. Moisture conservation technques must be followed in rainfed fields.
Prakasam			70	25	50	35	25	
KARNATAKA								
Dharwad	14	6	10	14	10	8	8	Crop to be sown after receiving the rainfall during first week of June. Furrows at required spacing may be done in field to conserve the rain water which helps in dibbling of seeds immediately after the rainfall during first week of June. It is suggested to procure the seeds of cotton hybrids suitable for their location. Under irrigated situation, it is advised for sowing of Bt cotton immediately if not sown during last week of May with pre sowing irrigation. Under rainfed condition it is advised for dibbling of cotton immediately after receiving the rains during June first week. The seeds to be sown in 90 x 60 cm (intraspecific Bt hybrids) and 120 x 60 cm (inter specific 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 Bio cultures like
Haveri	28	9	10	12	15	10	14	
Mysore	2	3	10	14	17	12	10	
TAMILNADU								
Perambalur	1	1	0	3	0	0	3	Cotton season is yet to commence.
Salem	3	2	10	8	0	3	3	
Trichy	1	1	0	3	0	0	0	
virudhunagar	1	2	5	7	3	7	3	

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

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

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