

## ICAR-Central Institute for Cotton Research

### Weekly Advisory for Cotton Cultivation from 18<sup>th</sup> to 24<sup>th</sup> July 2016

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

#### WEATHER ADVISORY

Date	July-16														Advisory
	Actual Rainfall Received (mm)							IMD rainfall forecast							
	7-13 July	12	13	14	15	16	17	18	19	20	21	22	23	24	
<b>PUNJAB</b>															<p>In Punjab, the crop is 60-80 days old at vegetative and fruit initiation stage. Interculturing carried out for weed removal. The mean whitefly incidence/ leaf on cotton; was 3.8 in Machaki, 3.7 in Kingra, 12.26 in Khara, 3.4 in Chaina, 1.9 in Kotho chand singh, 10.70 in Seda Singh wala, 3.7 in Ajit gill, 6.6 in Bajakhana; Jassid incidence ranged from 3-5/ leaf at all locations. The fields should be regularly monitored for whitefly incidence on cotton and weeds and weed removal should be done properly. Whitefly attack seen in other alternate host crops like brinjal, tomato, okra, moong, mash and guar. Regular surveillance should be done for timely management on these crops. Jassid management should be done with Thiamethoxam 25 WG@ 40g/ acre or Flonicamid 50WG@ 80g /acre. 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 60 to 70 days old at vegetative, squaring and flowering stage. Hoeing, weeding and intercultural operations with tractor are in progress. The presence of weeds has been noticed at boundaries of fields or in the adjoining areas. A decline in whitefly population was observed during the week. Incidence of whitefly ranged between 7-17 /3 leaves on RCH650 BG-II (average 11.1/3 leaves), HS-6 (range 10-20 and average 15.2/3 leaves), Ganganagar Ageti (range 8-16 and average 11.40/3leaves) and in RS2013 (range 7-14 and average 11.2/3leaves). At few farmers' locations in Sirsa, whitefly ranged between 1-12 /3leaves. The root rot and blackening of stem at collar region has been observed at few locations at farmers' field. CLCuD was also noticed at farmers' field. Farmers are advised to monitor the crop regularly for pest build up. Stringent monitoring is required in the fields adjoining to citrus orchards. Need based application of neem based insecticides+ nirma powder 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 field must be maintained. Farmers may be advised to judiciously apply the nitrogenous fertilizers and apply Potassium nitrate (13:0:45) @2.0 kg/acre in 100 litres of water as where crop is in flower initiation stage. At other</p>
Bathinda	38	0	0	0	4.6	0	16.3	3	0	3	0	0	11	3	
Ferozepur	6.2	0.7	0	0	0	0	18	4	0	0	0	0	11	6	
Muktsar	31.2	0	0	0	0	0	0	47	0	3	0	0	7	6	
Mansa	30.4	0	0	0	0	16.2	34.2	7.6	0	5	0	0	4	12	
<b>HARYANA</b>															
Sirsa	0	0	0	0	0	0	0.8	1	0	4	0	0	0	14	
Hissar	2.9	0	0	0	6.4	9.1	11.1	10.6	11.5	0	0	0	3	38	
Fatehabad	11	0	0	0	1	19.7	5	4.7	3.3	3	0	0	5	23	
<b>RAJASTHAN</b>															
Hanumangarh	5.7	0	0	0	2.9	4.4	2.3	0.6	10.4	1	2	1	1	3	
Sri Ganganagar	2.3	0	0.1	0	0.9	1	0.3	0	0.4	1	2	1	1	3	
Banswara	153.6	44.6	73.1	4.9	0.6	8	2.6	1.3	11.6	1	1	2	2	2	

																			places in Haryana, the crop is normal at vegetative stage. Hoeing has been carried out. No weed infestation. Proper coverage of underside of leaves during the insecticidal sprays effectively reduces the population of insects. In case of infestation of leafhopper, recommended insecticides like 40 ml Imidacloprid 17.8 SL or 40g Thiamethoxam 25WG per acre may be sprayed. If whitefly population is high (more than 6-8 adult/leaf), then first spray should be done with Nimbecidine/Achook @ 1 L/acre. For spotted bollworm in desi cotton, spray 600 ml Quinalphos 25 EC or 600 ml Profenophos 50 EC or 75 ml Spinosad 45 SC using 200 L of water per acre. At initial indication of the root rot disease, drench the healthy plants in a radius of one meter around diseased plants with Carbendazim @ 0.2 per cent solution. To control foliar disease, spray Streptomycin sulphate (6-8 g) plus Copper oxychloride (600-800 g) in 200-250 lit of water per acre 3 to 4 times at 15 days interval. Farmers are advised to monitor their crop for insect pests and diseases regularly. At Sriganaganagar, the crop is in vegetative and square formation stage. Whitefly incidence is below ETL level in timely sown crop. Thrips and jassids incidence at low to medium level. Neem oil based sprays are recommended. Wherever whitefly numbers are more, yellow sticky traps may be set up at the rate of 5-10 traps per acre for trapping whiteflies. Farmers in the vicinity of Sirsa are advised to visit CICR RS Sirsa to see the operation of whitefly adult suction trap and its utility for whitefly management. Early sown and timely sown crop is unlikely to be damaged due to the current whitefly infestation levels, especially because of the intermittent rains and the lowering down of temperatures.
<b>ORISSA</b>																			Cotton Sowing should be completed at the earliest. Farmers are advised to apply FYM @ 5t/ha during final land preparation. Apply basal dose of fertilizers based on soil test reports. Recommended dose of fertilizers for hybrids: 120: 60:60 kg NPK/ha and for varieties: 90:45:45 kgNPK/ha, Basal dose : Full P + 50 % K + 25% N with Spacing: Normal planting- 90 cm x 60 cm and HDPS- 60 cm x 10 cm. For green manuring, sow 25 kg Sunhemp seeds/ha at 1 DAS and incorporate after 25 to 30 DAS. Seeds should be treated with Azotobactor and PSB (phosphate solubilizing bacteria) @ 25 g each/kg of seed. Intercropping should be done with red gram at 8:2 row ratio. Trap crops like castor, marigold and maize should be planted around the cotton field. For weed management, apply Pendimethalin at 1.0 kg/ha at 1 DAS as pre-emergence spray.
Koraput	99	6.8	2.3	0	4.5	10	0	2	0.6	26	33	25	16	14					
Kalahandi	128.3	1.4	0	3.6	0	45.8	1.9	25.2	5.1	22	29	34	15	5					
Balangir	64.8	1.4	0	1	0	14.4	10.8	17.3	0	9	40	20	13	0					
<b>GUJARAT</b>																			
Amreli	3.9	0	1.1	1	4.6	0.2	3	0.7	5.3	24	10	10	14	24					
Bhavnagar	3	0.4	2.7	4.9	0.5	0.6	4	0.3	4	20	20	10	10	14					
Jamnagar	10.6	0.5	9.1	21.9	5.5	0.7	6.6	6.1	6.9	20	20	10	13	14					
Rajkot	14.3	1.3	12.8	2.4	2.6	0.3	2.9	4.3	4	23	20	10	13	13					
																			Gujarat has received deficit rainfall at -30 to -70% less than normal in the main cotton growing districts. Reports show that less than 30% of the area was timely sown. An area of about 13.65 lakh hectares was sown before 11th July and about 17.7 lakh hectares were sown before 15th July. Over the past three years Gujarat had sown cotton in 28-29 lakh hectares each year. Crop sown after 15th July will

Broach	16.7	2.4	10.3	2.5	0	1.1	5.7	7.1	9	23	25	24	39	36
Sabarkantha	100.1	18.3	70.7	18.1	2.1	3.1	3.7	4.6	5.5	14	10	10	14	20
Surendranagar	17.5	2	15.5	2.1	0.5	0.7	2.9	0.4	0.5	23	10	10	13	25
Ahmedabad	29.4	9.1	20	5.8	13.3	4.2	12	3.4	3.6	23	20	20	23	15
Baroda	55.5	23.6	22	1.9	0.2	0.9	2	0.7	9.4	28	22	18	39	21
Patan	68.7	32.9	35.9	8.4	2.1	7.4	1.7	0	1	10	10	10	10	10
Mahesana	81	24.9	56.1	1.8	7	3.5	3.2	6.2	1.8	10	10	10	10	25
<b>MP</b>														
Khargaoon	148.4	34	46.5	5.3	0.2	1.8	0	3.5	9.7	0	3	8	18	18
Dhar	114.2	29.3	26.5	1.8	0.9	0.7	0.6	0	12.7	8	5	3	0	0
Khandwa	259.9	56.8	48.3	7	0	0	0.3	5.8	2	0	15	12	8	29
<b>MAHARASHTRA</b>														
<b>A</b>														
Dhule	77.1	12.6	2	0.2	0.3	0.2	0	0.2	5.6	8	80	99	16	18
Nandurbar	114.2		8.6	6.3	1.3	0.4	2.7	1.6	7.3	16	91	88	28	33
Jalgaon	132.7	44.2	4.9	1.2	4.2	1.9	0.1	2.2	15.8	9	91	89	12	18
Ahmednagar	52.4		2.5	1.5	0.6	0	0	0	0.8	20	95	72	70	25
Aurangabad	111.8	20.5	1.9	0.4	0	0	0	0.2	3.9	12	90	90	9	9
Jalna	115	35.2	2.5	0	0	0.2	0	0	1.5	0	43	44	7	4
Beed	24.2	3.7	1.8	1.1	0.9	0	0	0	10	0	45	44	3	7
Nanded	170.8	86.7	6.5	1.3	0	0	1.7	6	1.5	3	75	81	4	11
Parbhani	108.3	52.8	1.6	0	0	0	0	5	1.6	0	74	85	6	8
Hingoli	120.3		1.3	0	0	0	0.3	5.5	0	0	74	73	4	6
Buldhana	159.3	79.3	6.3	0	0.1	0.1	0.5	2.4	8.2	3	5	3	6	2
Akola	200.6	90.6	9.9	1.7	3.1	0.9	3.1	1.1	7.4	2	4	4	3	1
Washim	128.2	62.9	3.2	1.1	1	0.4	2.3	11.3	6.5	1	2	4	3	1
Amravati	195.8	37.4	19.7	0.3	0.1	2.6	1.8	2	10.3	4	4	10	4	1
Yavatmal	190	50.6	11.1	0.3	0.1	1.9	8	16.6	3.3	1	2	6	4	2
Wardha	197	15.2	33.1	0	0	0.1	8.3	6	11.6	2	2	8	4	2
Nagpur	108.9	4.9	12.1	0.2	0.1	0.8	3.3	17	20.2	3	3	10	7	4
Chandrapur	328.2	95.5	10.6	0.5	0.3	3.2	2.2	15.5	3.4	2	4	22	7	7

clearly face problems of the pink bollworm. Farmers are advised to avoid sowing of cotton after this week. Early and timely sown short duration crop escapes insect pests and gets soil moisture at the crucial flowering and boll formation stage thus resulting in high yields with less need for inputs. Late sown crop will need to be managed for the pink bollworm. At Junagadh, the crop is 21 days old. Interculturing and weeding was carried out. Jassid observed below ETL (1/3 leaves/plant). At Surat, the crop is in seedling stage. Gap filling has been done. Reports of pink bollworm on premonsoon sown cotton crop was recorded. Monitor for pink bollworm using pheromone traps as the crop is in flowering stage in pre-monsoon sown crop. Collect and destroy rosette flowers by mechanical means in such fields

At Khandwa, the crop is 40 days old at vegetative stage. Weed infestation is seen for which recommended measures have been taken up. Jassid infestation below ETL noticed. No incidence of diseases.

Good rains have been received in Maharashtra state so far. Good rains are also predicted to be received in the state during the Kharif season. Cotton crop will be good in Maharashtra this year if proper care is taken for nutrient management and pest management. For best results full dose of potash and phosphorus and one-third of nitrogen application should be given initially at sowing or within three weeks of sowing. Subsequently urea application may be split into 3 parts to be applied at 20 to 25 days intervals during the flowering and boll formation phase. Soil moisture should be ensured during fertilizer application. Though rains were received in Marathwada during 17-20th June, monsoon arrived in Maharashtra on 23rd June. Rainfall was evenly distributed for the subsequent 20 days. Crop sown before 26th June would be most benefitted. However cotton sowing was completed in only 2.35 lakh hectares before 25th June. Thus far cotton sowing has been completed in about 33 to 35 lakh hectares in Maharashtra. By 2nd July 15 lakh hectares were sown and by 9th July sowing was completed in 27 lakh hectares. Good rains are predicted across the state through the season and good yields can be expected. However, crop sown after 15th July will not grow properly and may result in low to moderate yields. Late sown crop, including BG-II hybrids would suffer from pink bollworm. Therefore it is advised not to take up any further sowing of cotton in the state. Rains subsided after 14th July across the state. Hoeing and weeding is being done in a brisk manner. If basal dose of NPK fertilizers were applied during sowing, urea at not more than one bag per hectare may be applied in the last week of July in crop sown in June.

Rains up to 16th July were 280 to 380 mm in each of the five districts of Amravati division. Sowing was delayed in Washim district because of uneven distribution of

																<p>rainfall across the district. Good rains were received only during the second week of July. Sowing intensified in Akola and Buldhana during the first week of July. By 16th July sowing was completed in 1.2 lakh hectares in Buldhana and about 1.0 lakh hectares in Akola. Sowing was almost completed in more than 1.7 lakh hectares in Amaravati and about 3.5 lakh hectares in Yavatmal districts. This year in Beed district, cotton was sown in time with 90% of the sowing completed by the first week of July. Thus far up to 16th July only 96mm rain has been received in the district. The distribution has been uneven, but predictions indicate good rains by second week of August in Beed. Jalna and Aurangabad received good rains recently. The total rainfall was 218mm in Jalna and 255mm in Aurangabad district. Sowing in both districts has been completed. About 1.0 to 1.5 lakh hectares in the division was sown during the second week of July. Nanded received good evenly distributed rains so far with a total of 378mm up to 16th July. Parbhani received 300 mm rainfall so far. Cotton sowing was completed in time in Nanded district with very less of area left to be sown. However, official reports indicate completion of sowing in 50 to 60% of the remaining 4.0 lakh hectares in the Latur division. Rains arrived in the last week of June in Dhule and Jalgaon districts. Jalgaon received 239mm and Dhule received 165mm rainfall. Sowing in Dhule was almost completed by the second week of July. Sowing was slow in Ahmednagar and late sown crop can be infested with jassids, especially in susceptible Bt-cotton hybrids. More than 50% of the cotton was sown late in Nadurbar district. Pink bollworm is likely to cause problems during flowering phase in August, but may become a serious problem in October-November months. Care must be taken to install pink bollworm pheromone traps in August and subsequent months for monitoring the insect. Excess urea and application of imidacloprid or thiomethoxam or monocrotophos should be strictly avoided to ensure uniform flowering and boll formation. Jassids have developed resistance to these insecticides and their application during initial squaring stage not only disrupts ecology by killing beneficial insects, but also causes delayed crop maturity. Up to 16th July Nagpur district received 321mm rain, Chandrapur received 625mm and Wardha received 443mm. Crop sown in the second and third week of June under dry sowing will be very healthy. However, only 43,167 hectares were sown in Nagpur division by the 25th June. Crop sown in 2.06 lakh hectare before 2nd July would be good. Rest of the crop sown in 3.1 lakh hectares after 2nd July will need special attention. Much of this area is in Nagpur district wherein cotton area increased two fold, the normal sown area. Heavy rains were received during 8-13th July. Application of urea after hoeing and weeding will boost vegetative growth especially in June sown crop. Any excess of urea application can lead to jassid infestation. So far there are no reports of any insect or disease infection from any part of the state. There is no need of any chemical insecticides. Jassids may occur in</p>
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															<p>susceptible Bt-cotton hybrids, especially with excessive urea application. Neem oil 10 ml per litre with 5g detergent soap can be sprayed. There may be wilt problems in water logged areas. At the initial stage of wilt, soil may be drenched with Carbendazim 50% WP 50g per 100 litres water per acre followed by spray of 200g Urea in 10 litres of water.</p> <p>Rainfall distribution in Mahabubnagar and Nalgonda is unsatisfactory and uneven. Other cotton growing districts have received adequate rains. Moisture conservation measures are strongly recommended in Warangal, Khammam, Mahabubnagar and Nalgonda. Insect pest or disease reports have not been received from any part of the State. Insecticide usage is not needed anywhere now. Use of Pendimethalin at recommended dose as a pre emergence weedicide is recommended.</p> <p>Cotton sowing is under progress in few parts. The sown crop in most of the areas is at vegetative stage. Procurement of Seed and inputs by the cotton farmers is under progress. The summer cotton sown in Prakasam District is in vegetative to boll bursting stage and the first pickings are in progress. Authentic Bt seeds may be procured with bills. In some places land preparation is under progress. Use of Pendimethalin at recommended dose as a pre emergence weedicide is recommended. In these areas, sowings will be taken up when sufficient soil moisture is available.</p> <p>Sowing of Bt cotton is almost completed in all the cotton growing areas. Cloudy condition and continuous rains during this week helped for sowing of cotton and the crop which is at seedling stage. Early sown crop is 30 to 40 days old and the crop is at vegetative stage. Sowing of Bt cotton may be continued till July end. Thinning, first intercultivation/hand weeding and basal dose fertilizer application is completed in early sown crop. Heavy weed infestation was noticed in places where there was continuous rains. The following recommendations from UAS Dharwad and UAS Raichur may be followed: 1. Under heavy weed infestation and non availability of labours, post emergent weedicide application of Quisalofof Ethyl @ 1 ml/lit of water and Pyriithiobac sodium @ 0.8 ml/lit may be used to control monocot and dicot weeds. 2. Sucking pests and shoot weevil incidence was reported in some parts of Haveri and Dharwad districts. Spraying of Profenofos @ 2 ml/lit of water for managing the shoot weevil incidence and also to hand pick the adult weevil sheltering on the top portion of the cotton plant during morning hours is recommended. 3. Incidence of Thrips and leaf hoppers was noticed in few areas. Farmers are advised to take up Fipronil spray (1 ml in 1 litre of water). 4. In 30 to 40 days old crop, it is suggested for spot application of 25 kg each DAP &amp; Urea, and 15 kg Muriate of Potash per acre and the crop may be earthed up for better utilization of</p>
<b>TELANGANA</b>															
Adilabad	187.4	58.4	3.1	1.1	0.1	2.4	0.3	0	6.5	4	7	13	70	51	
Warangal	55.2	5.6	4.3	0.1	0	15.5	0.4	0.2	18.9	16	14	5	42	36	
Khammam	41.7	4	5.9	1.9	0	7.7	0	2.3	15.3	12	8	3	5	21	
Karimnagar	125.9	26.6	11.8	1.9	0.3	2.8	0	0	2.3	9	26	2	96	11	
Nalgonda	6.7	0	1.1	0	0	0	0	1.7	22.6	10	15	30	4	54	
Mahabubnagar	20.5	1.8	1.1	0	0	0	0	0.3	12.4	4	15	128	36	11	
<b>AP</b>															
Guntur	4.9	0	0	0	0.8	0.2	0	7.7	27.6	14	6	10	9	14	
Prakasam	5.7	0.5	0.4	0	0	0	1.4	9.3	8.5	2	16	29	7	3	
<b>KARNATAKA</b>															
Dharwad	37.8	6.4	1.8	1	0.5	8.4	0	1.5	1.3	3	4	7	3	6	
Haveri	10.2	1.3	0.6	1.7	0.7	0	0	0	0.3	3	7	3	4	8	
Mysore	18	0.7	1.2	1.2	1.4	12	0	4.7	3.1	3	4	4	3	5	

																		applied fertilizers. At Raichur, the sown crop is 15 to 20 days old. In some areas, weed infestation was noticed. Pendimethalin @ 3.33 litres per ha may be applied to prevent weeds in early stages of the crop. PBW endemic areas of last year may be monitored using pheromone traps at recommended rates. No incidence of diseases has been reported.
<b>TAMILNADU</b>																		In some areas cotton sowing has been taken up which is in germination stage.
Perambalur	0	0	0	0	0	9.3	2.3	4.5	0	2	2	0	2	2				Anticipating light rainfall, sowing in cotton may be taken up in rest of the areas.
Salem	2.8	0	0	0	0.1	7.5	2.6	3.5	8.1	3	5	0	0.5	4				Preparatory tillage has been carried out.
Trichy	0	0	0	0	0	22.6	9.8	12	0	2	2	0	0.5	4				
Virdhunagar	0.2	0	0	0	0	0.2	0.9	15.7	0.8	0.5	0.5	0	0	0				

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://nwp.imd.gov.in/bias/dist_fcst.htm)

**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

**State Agricultural University Team:**

Dr (Ms) Suneet Pandher, Dr. Sanjeev Kumar Kataria, Dr. Rishikumar, Dr. Roop Singh Meena, Dr.B.S.Nayak, Dr. Prashant Sandipan, Dr A. N Paslawar, Arvind, Dr. Pandagale Dr. Satish Parsai, Dr.V.Chenga Reddy, Dr. Aladakatti, Dr. M.Y.Ajaykumar, Dr. Subbalakshmi Lokanadhan, Dr.M.Gunasekaran