

## ICAR-Central Institute for Cotton Research

### Weekly Advisory for Cotton Cultivation from 4<sup>th</sup> to 10<sup>th</sup> July 2016

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

#### WEATHER ADVISORY

July-2016	RAINFALL in mm										ADVISORY
	Rainfall Received					Rainfall forecast					
Date	2	3	4	5	6	7	8	9	10		
<b>PUNJAB</b>											<p>In Punjab, the crop is in vegetative stage. In Bhatinda district, whitefly populations were below economic threshold levels (ETL) in all villages surveyed. Leaf hopper populations reached ETL in a few locations in Jassipoanwali and Talwandi. In faridkot district Leaf hoppers reached ETL in Behlewal, Kothe Chand Singh (American Cotton), Kothe Narayangarh, Khara and Seda Singh Wala. Whiteflies reached ETL in Behlewal, Kothe Chand Singh (American Cotton), Kothe Narayangarh, Khara, Seda Singh Wala, Romana albel singh (Desi Cotton), Kothe Chand Singh (Desi Cotton), Sravan and Lambwali. Whitefly populations were below ETL at Ajit Gill and Bargadi. In Muktsar district, whiteflies reached ETL in Udaikaran and Buragujjar and leaf hoppers reached ETL at Udaikaran. in Haryana, the crop is at vegetative stage. Hoeing is done in early sown crop. In Hisar, Bhiwani, Jind, Fatehabad and Sirsa districts ,adults whitefly population was below economic threshold (0.3 to 8.1/leaf) in all the fields visited except in one field in village Bass (Hansi, Hisar) where adult population was above ET (8.1 adult/leaf). Mean leaf hopper nymphs and adult population ranged from 0.1-3.0/leaf. Population of leaf hopper was above E.T. (2 nymphs and adult/leaf) in village Barwala, Badawad, Badoda and Landhri. Incidence of thrips was observed in traces. No incidence of mealybug was reported. Farmers should monitor cotton crop for whitefly and leafhopper incidence on weekly basis and apply control measures only at ET. High activity of natural enemy, <i>Chrysoperla sp.</i>, which feed on whitefly and leafhopper, was observed in all the cotton fields. Therefore, farmers should refrain from unnecessary insecticide application in order to conserve this beneficial insect. In the next fortnight, 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 level. In case, whitefly population crosses ET on cotton, initial sprays of Nimbecidine 300 ppm @ 1 litre/acre in 200 litres of water may be given twice at five days interval. 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. Farmers may be advised to judiciously apply the nitrogenous fertilizers. At Sriganganagar, the crop is in vegetative stage. Whitefly incidence is below ETL. Need based application of neem based insecticides + detergent powder is advised in the specific field harboring population near to ETL. Azadiractin 1.0% EC may be sprayed at 2 ml/lit of 500 lit per hectare. <b>IN VIEW OF THE HEAVY RAINS PREDICTED BY THE IMD, IT CAN BE SURMISED THAT THERE ARE STRONG CHANCES THAT WHITEFLY POPULATIONS WOULD NATURALLY DECLINE SIGNIFICANTLY WITH RAINS.</b></p>
Bathinda	0	25	0	0	0	31	5	0	4		
Ferozepur	0	1	0	0	0	31	5	0	4		
Muktsar	0	56	0	0	0	16	3	0	3		
Mansa	0	9	0	0	0	0	0	3	3		
<b>HARYANA</b>											
Sirsa	0	37	3	0	0	3	0	6	6		
Hisar	8	48	5	0	0	3	0	6	6		
Fatehabad	7	24	1	0	0	3	0	3	0		
<b>RAJASTHAN</b>											
Hanumangarh	8	20	13	0	2	3	4	4	5		
Sri Ganganagar	0	3	1	0	2	3	4	4	5		
Banswara	0	2	74	12	3	2	2	3	4		

<b>ORISSA</b>										<p>Sowing of cotton has been done in 50% area. Basal dose of fertilisers and pre-emergence herbicides have been applied. 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 <i>Azotobactor</i> and <i>PSB</i> @ 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. Pre release varieties of OUAT BS 279 and BS 30 can be taken up for high density planting system.</p>
Koraput	38	8	3	17	31	17	24	29	22	
Kalahandi	54	0	5	1	35	23	4	13	6	
Bolangir	52	7	7	3	52	32	4	0	3	
<b>GUJARAT</b>										<p>Monsoon has covered the entire of Gujarat. This week is the best time for sowing, since HEAVY rains are predicted for the ensuing week. Medium and long duration Bt-cotton hybrids suffered from pink bollworm last year. Therefore short duration varieties at 90x30 cm spacing should be preferred especially in regions with limited irrigation resources. Farmers may contact the State Agricultural Departments and SAUs to identify high productive short duration bt-hybrids preferably tolerant to sap-sucking insect pests. Farmers are advised to purchase genuine seeds with bill. For light and marginal soils under rain-fed tracts, select short duration (150-160 days) non-Bt varieties to be planted under high density at 60x10 cm. For black-cotton soils, medium-deep soils, select short duration (less than 180 days) Bt-hybrids tolerant to sap-sucking insects which would help in effective pest management. 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. Farmers are advised to apply Pendimethalin at 1.0 kg/ha just prior to sowing or within 48 hours after as pre-emergence spray.</p>
Amreli	20	82	9	1	0	0	0	3	8	
Bhavnagar	20	28	29	3	0	0	0	0	7	
Jamnagar	1	1	1	1	0	0	0	0	0	
Rajkot	6	4	10	1	0	0	0	3	0	
Bharuch	4	14	12	10	4	3	3	15	31	
Sabarkantha	0	0	12	48	0	0	3	10	10	
Surendranagar	20	6	3	1	0	0	0	0	0	
Ahmedabad	9	2	1	10	0	0	0	13	17	
Vadodara	0	4	4	11	19	16	12	29	49	
Patan	0	0	0	1	0	0	0	0	0	
Mehsana	0	1	6	14	0	0	0	0	0	
<b>MP</b>										<p>Cotton sowing may be taken up in all the three districts. Rains are expected to continue in the ensuing week as well. Short to medium duration varieties may be preferred in rainfed regions.</p>
Khargone	0	0	11	3	19	212	0	11	5	
Dhar	0	0	45	1	3	0	18	62	38	
Khandwa	0	19	29	0	49	118	1	8	4	
<b>MAHARASHTRA</b>										<p>Monsoon has now covered the entire state. Cotton growing districts in Maharashtra have received rainfall that is adequate for sowing. Water harvesting preparations must be done immediately. Early sown crop will require proper drainage. Crop sown under ridges and furrows or broad bed furrows with proper drainage will be benefitted the most under such conditions. In view of the good monsoon prediction for Maharashtra, many Bt-cotton hybrids are expected to perform well. However short to medium duration hybrids at 90x30 cm spacing sown on ridges are likely to perform better under rainfed and irrigated conditions. Avoid long duration varieties/hybrids in rainfed farms especially in the absence of any form of protective irrigation. Short duration varieties get adequate soil moisture during the critical flowering and</p>
Nagpur	10	40	9	13	9	8	22	21	11	
Wardha	15	38	27	18	6	5	4	12	13	
Chandrapur	25	27	13	18	8	5	6	7	19	
Yavatmal	1	10	4	23	8	4	3	9	18	

Amravati	28	27	10	23	6	4	28	38	19	<p>fruiting phase and escape bollworm attacks during squaring-flowering stage. Compact statured short duration varieties (NH 615, PKV 081, Suraj, LRK 516, Phule Dhanwantary etc., under high density give high yields in a short period of 140-160 days cropping season. If such varieties are sown before the end of June in high density planting at 60x10 cm (45x10cm for Phule Dhanwantari), the crop will escape drought stress and bollworms. Irrigated farms may take up medium to long duration varieties or Bt-cotton hybrids. However proper pest monitoring and management will be necessary for pink bollworm management. Sowing on ridges in rain-fed regions especially in high density planting systems is most preferred. Farm Yard Manure @ 5 to 10 t/ha or compost should be applied just after the first rain. <i>Azotobacter</i> and <i>PSB</i> (phosphate solubilizing bacteria) @ 25 g each / kg seed should be used for nutrients fixation. Balanced nutrients of N with adequate P and K assist plants to combat sucking pests. Basal application of fertilizers at the time of sowing and split dose at flower initiation and later at boll formation is ideal for yields and pest management. The following fertilizer recommendations are per acre basis. For rainfed cotton 80-100 Kg single Super Phosphate + 20 Kg urea + 20 Kg Muriate of Potash as basal dose during sowing or at 20 days after sowing; 20 Kg urea at flowering stage (45-50 days after sowing) and 20 kg urea at 70 days after sowing. For irrigated cotton 100-120 Kg single Super Phosphate + 25 Kg urea + 30 Kg Muriate of Potash as basal dose during sowing or at 20 days after sowing; 25 Kg urea at flowering stage (45-50 days after sowing) and 25 kg urea at 70 days after sowing. At Akola, the crop is in squaring stage in pre monsoon cotton. Sowing of cotton is still in progress. Sucking pests incidence and redenning in few plants observed in pre monsoon cotton.</p>
Akola	0	15	16	23	7	3	1	14	8	
Buldhana	1	14	4	19	10	3	7	13	20	
Parbhani	0	4	0	20	8	4	0	7	4	
Nanded	0	6	0	22	10	5	3	8	10	
Beed	0	0	1	5	6	5	0	0	4	
Washim	0	10	1	24	7	4	5	10	5	
Dhule	1	3	9	6	11	6	6	30	52	
Jalgaon	1	2	15	23	19	3	8	39	52	
Jalna	2	1	1	15	3	4	0	0	4	
Aurangabad	2	0	6	10	12	11	6	13	33	
<b>TELANGANA</b>										
Adilabad	4	10	1	15	15	5	3	3	7	
Warangal	1	14	0	14	6	5	6	8	5	
Khammam	2	5	0	17	6	6	5	2	4	
Karimnagar	1	21	0	17	15	5	6	8	6	
Nalgonda	2	0	0	0	4	4	6	8	4	
Mahbubnagar	1	0	0	0	5	6	8	10	2	
<b>AP</b>										
Guntur	2	0	0	1	3	0	8	0	0	
Prakasam	0	0	0	0	4	3	2	3	3	
<b>KARNATAKA</b>										
Dharwad	6	4	6	19	13	10	8	9	6	
Haveri	1	5	6	17	10	10	8	9	5	

Mysore	3	0	1	5	5	4	5	6	3	days old crop) it is suggested for application of fertilizers if not applied as basal. At Raichur, land preparation like preparatory tillage was carried out in some areas and sowing has been taken up in about 20 per cent of the area. In some areas, weed infestation was noticed.
<b>TAMILNADU</b>										
Perambalur	0	0	0	0	0	0	0	0	0	
Salem	0	0	0	0	1	1	1	0	0	
Trichy	0	0	0	0	0	0	0	0	0	
virudhunagar	0	0	0	0	0	0	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