ICAR-Central Institute for Cotton Research, Nagpur

Seventh Weekly Advisory for Cotton Cultivation from 16th to 22nd June '2020

	ACTUAL RAINFALL in mm IMD					PREDICTED RAINFALL in mm IMD					ADVISORY
	JUNE					JUNE					
Date	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	
PUNJAB											
Firozpur						0	0	0	0	0	At Faridkot, the crop is 42 to 47 days old at vegetative stage. Irrigation followed by urea application has been given to timely sown cotton crop (35-40 days old). Tractor operated intercultural operations have been taken up in timely sown cotton. No weed infestation observed so far . Thrips and whitefly incidence noticed but below ETL. There is no serious issue of any disease at this stage. At Bhatinda, the crop is 26 to 42 days old at seedling to vegetative stage. Hoeing and weeding is in progress. Weeds like *Cyperus* sp., *Digera arvensis* and *Trianthema monogyna* have infested the crop. Whitefly population incidence noticed but below ETL. Overall crop stand was good **Advisory:** Farmers are advised to apply recommended basal dose of fertilizers.
Faridkot	0	0	0	0	0	0	0	0	0	0	
Muktsar						0	0	0	0	0	
Bhatinda	0	0	0	0	0	0	0	0	0	0	
Sangrur						0	0	0	3	3	
Ludhiana	0	0	0	0	0	0	0	0	3	6	
HARYANA											
Hisar	0	0	0	0	1	0	0	0	3	0	At Sirsa, the crop is 5 to 7 weeks old at vegetative and square initiation stages. Whitefly population recorded between 0-3 and thrips 2-11/ 3leaves at all the locations. Presence of dusky cotton bug at few locations was also observed. Root rot incidence observed at few locations. At Hisar, the crop is 5 to 10 weeks old at early vegetative to flowering stage. The weather was almost dry during the reporting period. Hoeing and irrigation are in progress. Weeds like, motha (*Cyperus rotundus*) and horse purslane (*Trianthema portulacastrum*) have infested the fields where hoeing was not done. Dry hoeing recommended for removal of such weeds. Incidence of thrips, whitefly and leafhopper were noticed but below ETL. Farmers are advised to monitor the population of these sucking pests in 10 plants (3 leaves/Plant) on a randomly basis. Cotton leaf curl virus disease and Root rot disease has been observed in traces. Spot application of Carbendazim @ 2.0 g per litre of water was recommended against root rot. **Advisory:** At Sirsa, farmers are advised not to apply any intervention at this stage. First irrigation can be
Jind						0	0	0	3	3	
Sirsa						0	0	0	0	0	
Rohtak	0	0	2	0	0	0	0	0	0	3	

											applied in field where crop is 5 to 6 weeks old. Farmers are advised to apply first split of nitrogenous fertilizers at first irrigation. At Hisar, irrigation needs to be done in more than six weeks old crop. Thinning should be done in order to maintain optimum population. Spot drenching of Carbendazim 50% WP @ 2.0 g per litre of water is recommended for early seedling stage root rot /wilt incidence.
RAJASTHAN											
Ajmer	0	2	9	0	0	0	0	0	0	0	At Sriganganagar, the crop is 21 to 57 days old at vegetative to square formation stage. Weeds like Itsit (*Trianthema spp*.), tandla (*Digera arvensis*) Motha (*Cyperus rotundus*) have infested the crop. Sucking pests (jassids, thrips and whitefly) infestation were noticed but below ETL. Weed infestation was controlled manually / by weedicide spray. In Southern Rajasthan (Banswara, Dunarpur, Pratapgarh, Udaipur, Rajsamand, Chittorgargh, Bhilwara etc), the crop is being sown after onset of monsoon. **Advisory:** Farmers are advised to spray neem based insecticides @ 5ml/lit. of water for sucking pests (whitefly, jassid, etc) if crosses ETL. In southern Rajasthan, farmers are advised to keep their field clean. Crop rotation should be followed. Deep summer ploughing helps to expose and kill the dormant larvae and pupae hidden in the soil. To avoid the incidence of root rot and other soil born diseases Seed treatment with fungicides Thiram37.5+carboxin 37.5% DS @ 3.5 g / kg seed or Tetraconazole 11.6% w/w (12.5% w/v) SL @ 2 ml /kg seed or *Trichoderma harzianum* or *T. viridae* @4 g/ kg of seed and biofertilizers, Azotobacter and PSB @ 6 ml / kg should be done before sowing of cotton.
Jodhpur	0	9	0	0	0	0	0	0	0	0	
Nagaur						0	0	0	0	0	
Pali	0	0	0	0	0	0	0	0	0	0	
Sri Ganganagar	0	19	0	0	0	0	0	0	0	0	
ORRISA											
Koraput	4	22	0	0	7	5	29	29	19	33	Sowing of cotton has not started. Weather was hot and humid. Cleaning of field, ploughing and land preparation going on. **Advisory:** Farmers are advised to take up deep ploughing using MB plough for controlling weeds and more rain water penetration. Procure cotton hybrids with good fibre quality and yield. Arrange fertilizer, FYM and seed treating chemicals well in advance. Timely sowing at the onset of monsoon can save the crop from terminal drought in rainfed situations. Use fertilizer dose of 120:60:60 kg/ha for hybrids and 90:40:40 kg/ha for varieties (Basal dose- Full P, 25% N and 50% K) and Micronutrients- $ZnSO_4$(25 kg/ha) and Boron(5 kg Borax/ha) as basal. Use FYM @5t/ha before final land preparation. To avoid the incidence of soil and seed borne diseases ,seed treatment with fungicides Thiram37.5+carboxin 37.5% DS @ 3.5 g / kg seed (For root and bacterial blight) or
Kalahandi	19	6	1	0	1	18	35	41	27	31	
Balangir	0	30	1	0	0	9	17	16	19	25	

											Tetraconazole 11.6% w/w (12.5% w/v) SL @ 2 ml /kg seed (For root rot) or *Trichoderma harzianum* or *T. viridae* @4 g/ kg of seed (for all seed and soil borne diseases) and biofertilizers, Azotobacter @ 6 ml / kg of seed should be done before sowing of cotton.
GUJARAT											
Amreli	0	10	0	14	47	0	11	31	14	39	At Junagadh, land preparation is under progress. Sowing has started in few places. The crop is 5 days old at germination stage. Pre-emergence herbicide (Pendimethalin 30 EC) has been sprayed after sowing cotton. **Advisory:** As sufficient rains have been received, farmers are advised to take up sowing taking advantage of cyclonic rains. To avoid seed and soil borne diseases farmers are advised for seed treatment with Thiram37.5+Carboxin 37.5% DS @ 3.5 g / kg seed or Tetraconazole 11.6% w/w (12.5% w/v) SL @ 2 ml /kg seed or *Trichoderma harzianum* or *T. viridae* @4 g/ kg of seed
Bhavnagar	0	24	0	3	0	0	0	20	33	34	
Jamnagar	0	0	0	0	0	0	0	55	87	79	
Rajkot	0	1	0	16	0	0	0	0	4	21	
Junagadh						0	0	0	59	52	
Sabarkantha						0	0	0	0	21	
Surendranagar	0	1	3	3	0	0	0	0	0	22	
Ahmedabad	0	12	75	10	0	0	0	0	35	46	
Baroda	1	20	0	21	0	0	0	0	4	24	
Patan						0	0	0	0	12	
Mehesana						0	0	0	0	25	
MP											
Khargaon											At Khandwa, the crop is 44 days old at vegetative stage. The weather was hot and shiny during the reporting period. Most of the farmers have taken up sowing of cotton. No weed infestation in the fields. **Advisory:** First irrigation can be applied in field where crop is 5-6 weeks old. Farmers are advised to apply first split of nitrogenous fertilizers at first irrigation.
Dhar	0	1	1	18	0	6	0	0	0	0	
Khandwa											
MAHARASHTRA											
Dhule						6	9	12	8	11	At Rahuri, sowing is in progress. The weather during the reporting period was cloudy and rainy. No incidence of weeds, pests or diseases. In Marathwada and Vidarbha, sowing is in progress, the crop is 0 to 15 days old at pre emergence stage. The weather was cloudy and humid during the reporting period. Harrowing and sowing are being taken up. **Advisory:** Farmers are recommended to give one harrowing prior to sowing to make stale seedbed. Rainfed cotton hybrids should be sown on spacing 120 x 45 cm. Basal dose of fertilizers - 48:60:60 NPK kg/ha should be applied at the time of sowing to rainfed cotton. Seed treatment with fungicides Thiram37.5+Carboxin 37.5% DS @ 3.5 g / kg seed or Tetraconazole 11.6% w/w (12.5% w/v) SL @ 2 ml /kg seed or *Trichoderma harzianum* or *T. viridae* @4 g/ kg of seed should be done before sowing to avoid seed and soil borne diseases.
Nandurbar						6	9	12	0	8	
Jalgaon	2	0	82	0	0	13	9	7	8	11	
Ahmednagar	2	0	16	0	43	31	77	12	9	0	
Aurangabad	32	52	12	0	16	29	56	80	16	64	
Jalna	32	11	0	0	0	3	3	0	7	0	
Beed	5	0	0	0	0	14	25	12	7	0	
Nanded	0	0	0	0	2	19	0	25	14	6	
Parbhani	5	0	0	31	34	7	0	4	13	0	
Hingoli						7	0	0	13	3	
Buldhana	10	14	5	2	35	13	3	0	7	0	
Akola	18	2	21	0	34	9	7	0	0	0	
Washim	25	5	15	60	14	0	0	0	5	4	
Amravati	33	2	0	6	3	25	11	0	0	0	
Yavatmal						15	4	0	10	3	

Wardha	3	7	0	10	7	12	3	0	0	0	Intercroppping system *viz*., Cotton + Green gram (1:2) or Cotton + Black gram (1:1) or Cotton + soybean (1:1) or Cotton + Pigeon pea (6:1 or 8-10:2) should be adopted for sustainable production. Post emergence weedicide Pyrithioback Sodium @ 62.5 g a.i. /ha + Quizolfopethyl 50 g a.i. / ha should be sprayed as tank mix at 20-30 DAS (2-4 weed leaf stage).
Nagpur	1	32	0	37	19	27	25	10	0	0	
Chandrapur	50	2	0	63	0	29	10	0	3	3	
TELANGANA											
Adilabad	0	31	1	0	1	15	0	0	7	3	Land preparation in progress.
Warangal	7	0	0	0	3	17	15	6	5	7	
Khammam	3	0	0	0	3	7	10	13	6	6	
Karimnagar	27	0	0	5	50	7	12	8	3	0	
Mahabubnagar	0	0	0	0	0	15	8	7	10	0	
AP											
Guntur	4	4	0	0	0	11	0	15	52	5	
Prakasam	1	2	0	0	0	10	11	4	27	16	
KARNATAKA											
Dharwad	2	1	2	3	4	20	11	7	0	0	At Raichur, about 10% of the Kharif crop has been sown in the region by farmers having irrigation facilities. The farmers are advised to take up sowing this week since June is the optimum sowing time in this region. Weather was generally humid and cloudy during the reporting period. At Chamarajanagar, the crop is 47 to 52 days old at vegetative stage. Intercultural operations are being taken up. Broad leaved weeds like *Cyperus* and *Parthenium* have infested the fields. Sucking pests incidence noticed with Jassids 3-4/ leaf, Aphids 10-12/leaf and Thrips 1-2/leaf. At Dharwad and nearby regions, ploughing is being done in the cotton fields. Land preparation for sowing cotton on receipt of rains is being done. **Advisory:** Sowing operation has been taken up in some irrigated patches. Farmers are advised to take up land preparation during this week. Pre-emergent application of Pendimethalin @ 3.5 ml per litre of water has to be sprayed on the sown cotton. No incidence of weeds or pests and diseases so far. At Dharwad and nearby regions, farmers are advised to sow Okra for every 20 rows of cotton for Shoot weevil pest management.
Haveri						16	7	10	0	0	
Mysore	0	0	1	4	0	4	0	0	10	29	
TAMIL NADU											
Perambalur	0	0	0	0	0	0	0	0	9	13	Post-season and pre-sowing package of practices 1. Clean up fields of residual stalks and partially opened bolls from previous crop season. Do not stack the uprooted cotton stalks on field bunds. At the end of crop season, the
Salem	0	0	0	0	0	8	4	5	19	20	
Trichy						3	3	0	22	23	

Virudhunagar						0	0	0	9	20	pink bollworm larvae of last generation enter the hibernation in crop residues like infested bolls, stalks or in soil. Therefore, such infested residues should be promptly destroyed in order to break the life cycle of pink bollworm. Residue destruction will also helps to reduce the inoculums and infection of new season's cotton crop by diseases like bacterial leaf blight, root rot and fungal leaf spots. 2. Install at least 10 pheromone traps each at 20 m distance in the premises of market yards and ginning mills to trap post season moths or suicidal emergence if any. Change the lures in pheromone traps timely. Also kill the larvae that come out of damaged seeds. This will help to check the spread of infestation of pink bollworm from ginning or market yard premises to nearby fields. 3. Avoid pre-monsoon sowing of cotton crop. Early sown crop bears the reproductive structures like squares and flowers early. The pink bollworm moths emerging from dormant population of previous season lay eggs on these squares and flowers thus early sown crop supports completion of new season's first generation of pink bollworm. If not controlled timely, next generations of this population further spreads onto the timely sown cotton crop with onset of squares, flowers and bolls. 4. Deep summer ploughing helps to expose and kill the dormant larvae and pupae hidden in the soil due to scorching heat of sun in April-May. Also, the birds following ploughed fields predate on these life stages of insect. This helps in minimising the incidence of insects like pink bollworm, leaf eating caterpillars, and soil born diseases like wilt, root rot and nematodes on coming season's cotton crop. 5. To avoid the seed and soil born diseases, seed treatment of fungicides Thiram37.5+carboxin 37.5% DS @ 3.5 g / kg seed or Tetraconazole 11.6% w/w (12.5% w/v) SL @ 2 ml /kg seed or *Trichoderma harzianum* or *T. viridae* @4 g/ kg of seed and biofertilizers, Azotobacter and PSB @ 6 ml / kg should be done before sowing of cotton.. 6. Crop rotation to be followed in the fields that were heavily infested with pink bollworm during last season to break the life cycle of pink bollworm. Cotton is the only host of pink bollworm, therefore crop rotation helps to break the life cycle of this pest. Crop rotation is very effective in checking the infection of soil borne diseases and nematodes in disease prone fields. 7. Grow sucking pest and disease tolerant, short duration and early maturing varieties/hybrids/cultivars of cotton. This helps in avoiding unwanted spraying of pesticides to control sucking pests and diseases during early crop growth stage. Pink bollworm infestation starts from mid-season and increases steadily towards the late season. Therefore, short duration and early maturing varieties helps to escape pink

											bollworm infestation in late season. 8. Sowing of cotton crop should be done only after receipt of 80-100 mm of monsoon rainfall. For ensuring proper germination and crop stand, withstand the prolonged dry periods during early seedling stage, there should be optimum soil moisture. This also helps to avoid re-sowing due to prolonged dry spell of rainfall. Timely sowing in June helps to avoid early infestations of pink bollworm. 9. In view of lockdown due to corona virus epidemic, proper social and physical distancing should be followed to avoid unnecessary crowd during purchasing of seed and other inputs at agro-input shops. 10. Increased awareness should be created among the cotton farmers regarding implementation of integrated pest management (IPM) strategy for management of pink bollworm. In view of lockdown due to corona epidemic, it is practically difficult to reach the farmers personally through field visits for creating awareness. Therefore, as a part of awareness, the literature on pink bollworm management may be distributed to the farmers along with cotton seed at the seed sale counters. The shopkeepers may also be advised to inform the famers not to adopt pre-monsoon sowing. This will help to spread the right message to farmers more effectively. The detailed information regarding cotton production technology, e.g. selection of soil, varieties, fertilizer application, sowing methods, irrigation systems, management of weeds, insect pests and diseases, etc. can be availed from an android based **CICR Cotton App** developed by ICAR-CICR, Nagpur. The app can be downloaded free of cost from Google play store. Additionally, the crop growth stage specific and weather based weekly advisory are uploaded on the website of ICAR-CICR that may also be consulted for the benefit of farmers. In view of recent locust outbreak, care should be taken to promptly dispose the heaps of grasses kept either in the fields or along the bunds which may serve as breeding ground for the pest.

Rainfall (mm)Legend colour

<5	5-20	21-50	51-80	>80

0.0 mm rainfall (no rainfall)
Blank space express data not available.
Source: http://agromet.imd.gov.in/index.php/download/download_state_wise