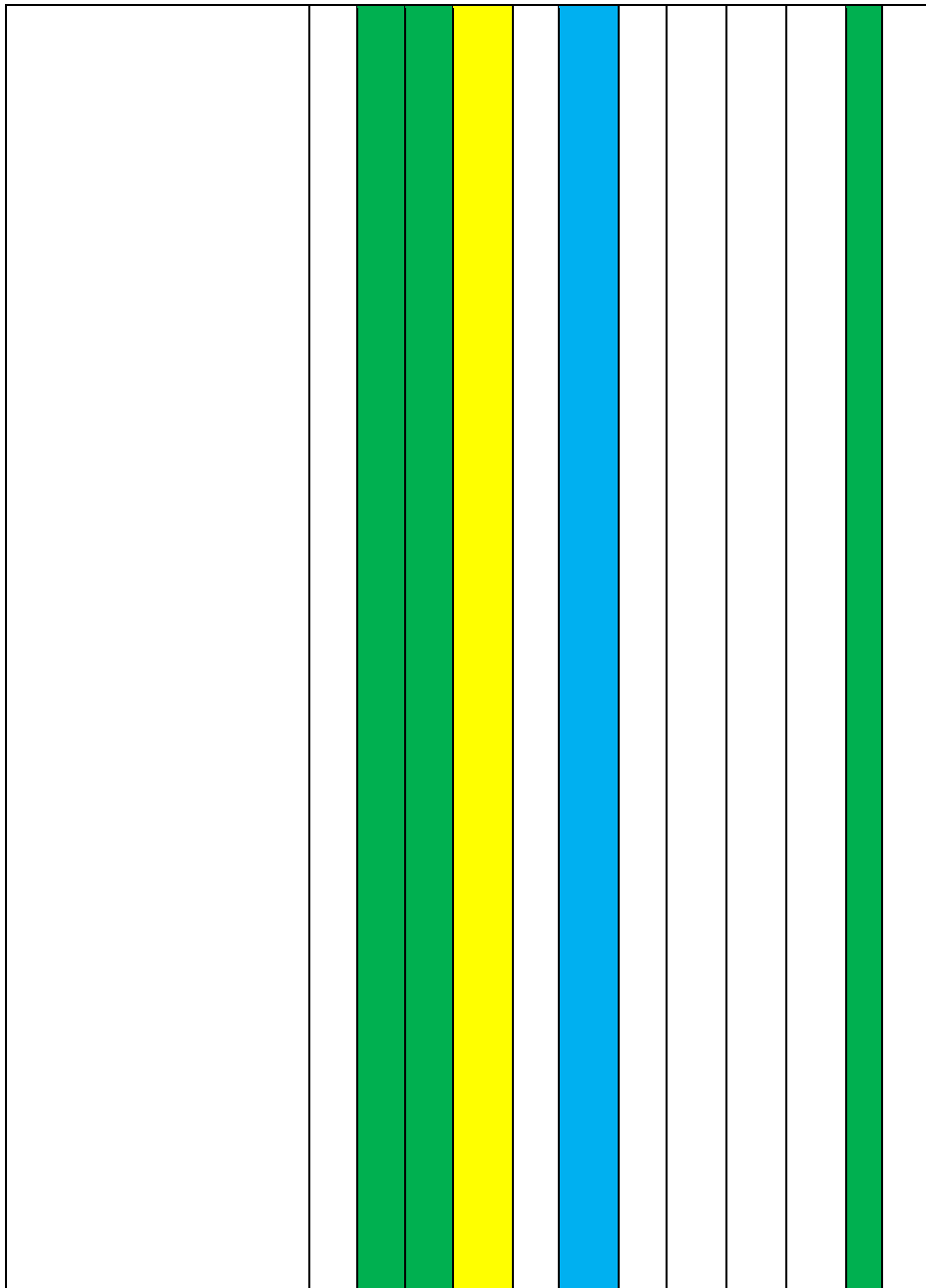


ICAR-Central Institute for Cotton Research, Nagpur
XII Weekly Advisory for Cotton Cultivation from 21st to 27th July '2020

	ACTUAL RAINFALL in mm IMD						PREDICTED RAINFALL in mm IMD						ADVISORY
	JULY						JULY						
Date	16	17	18	19	20	21	22	23	24	25	26	27	
PUNJAB													
Firozpur								1	1	0	1	3	<p>At Faridkot, the crop is progressing towards reproductive phase. Intercultural operations and fertilizer application have been taken up. One spray for sucking pest at few locations was given. Due to intermittent rainfall at few places, weeds like <i>Trianthema</i>, <i>Tribulus</i> and grasses have come up and chemical weed control has been advocated in present circumstances owing to non-feasibility of manual and mechanical intercultural operations. Thrips incidence was in range of 10-20/leaf on cotton. Whitefly (per/3 leaves) approaching ETL (4-6/leaf). Leafhopper incidence was moderate (3-5/leaf). Para wilt was observed at few places due to heavy rainfall. Farmers were advised to spray Cobalt chloride @ 1g/100lit of water on the affected plants only.</p> <p>At Bhatinda, the overall crop stand is good, 50 to 65 days old at vegetative to flowering stage. Hoeing and weeding operations are in progress. Excess water from cotton fields were drained after rainfall subsided. <i>Cyperus</i> sp., <i>Digera arvensis</i> and <i>Trianthema monogyna</i> were the predominant weeds noticed in the fields. Whitefly population varied from 2 to 8 per three leaves, leafhopper 0 to 4 per three leaves and thrips from 0 to 10 per three leaves. Pest (Whitefly, leafhopper and thrips) population is below ETL. Incidence of Para wilt after rainfall/ irrigation was observed in some cotton fields</p> <p>Advisory: At Faridkot, farmers are advised to apply second dose of Nitrogen @ 45 kg Urea/ acre and also to make suitable arrangements for drainage of water from cotton fields in event of heavy rainfall. To manage weed infestation under wet condition, farmers are advised to spray Gramoxone 24 SL (Paraquat) 500 ml in 100 lit of water (6-8 weeks after sowing when the crop is about 40-45 cm in height) as a directed spray to control weeds between the crop rows. The directed spray can be done by using a protective hood. If the incidence of thrips increases, spray Profenophos 50 EC @ 500ml/acre. In case incidence is severe, spray Diafenthiuron</p>
Faridkot	0	0	0	22	0			1	1	0	1	2	
Muktsar								0	0	0	0	1	
Bhatinda	0	0	0	0	40	104		0	1	0	3	3	
Sangrur								0	1	1	3	6	
Ludhiana	0	0	6	0	5	9		0	3	1	5	7	

													50 WP @ 200g/acre or Spinetoram 11.7 SC @170 ml. If whitefly incidence increases beyond ETL, spray Ethion 50 EC @ 800ml/acre or Dinotefuran 20 SC@ 60 g/acre or Diafenthiuron 50WP @200g/acre. If leafhopper crosses ETL of second injury grade, spray Dinotefuran 20 SC@ 60 g or Flonicamid 50 WG @80 g/acre.
													At Bhatinda, if whitefly population ranged between 6 adults per leaf, then farmers are recommended to spray the fields with Nimbecidine @ 1 lit per acre. Farmers are advised to drain out the excessive water due to continued heavy rains from cotton fields. Apply second split of Nitrogen where flowering has started. To save plants from para wilt, farmers are advised to spray Cobalt chloride solution @ 1g/100 lit of water within 24 to 36 hours of appearance of symptoms on the affected plants.
HARYANA													
Hisar	0	2	0	37	6	60		0	0	2	7	2	At Sirsa, the crop is 10 to 12 weeks old at vegetative and reproductive stages. Weeding and other intercultural operations are in progress. Whitefly population recorded between 5-19/3 leaves, thrips 17-30/ 3leaves at all the locations and leafhoppers were in traces (0-2/3leaves). Infestation of Pink Bollworm has been reported in few villages of Jind District (Haryana). Root rot and para wilt incidence observed at few locations.
Jind								0	0	2	9	3	
Sirsa								0	0	4	2	0	
Rohtak	0	7	16	22	1	65		0	0	2	7	2	At Hisar, the crop is 10 to 15 weeks old at vegetative to square/flowering stage. The weather was intermittent (clear/cloudy/rainy). Second split dose of fertilizer application, hoeing and insecticide application were done. Weeds like, <i>motha</i> , <i>santhi</i> , crowfoot grass, <i>shama</i> and <i>hirankhuri</i> have infested the fields. Farmers were advised to go for mechanical hoeing after every flush of rain or applying irrigation. Several fields were found to have the sucking pest incidence cross ETL. Farmers were suggested to spray of Thiamethoxam 25WG @ 40 g or Imidacloprid 17.8 SL @ 40 ml against leafhopper, Nimbecidine/Achook @ 1.0 litre against whitefly, per acre. The activity of pink bollworm was noticed in installed traps in the villages namely, Karsindhu (Jind) and Baldhan Khurd (Rewari). Farmers were advised to monitor pink bollworm population through pheromone traps and flower/boll infestation in the villages of Uchana block (Jind). Keeping in view the previous invasion of locust swarms, the farmers were also advised to be vigilant for the further invasion and inform the State Agriculture Department immediately. Root rot and cotton leaf curl virus disease were observed in few farmers' fields. Farmers were advised to do spot application of Carbendazim 50 WP @ 2.0 g per lit of water in root rot affected patches to manage infection.



Advisory:

At Sirsa, the sucking pests has crossed ETL at few locations, farmers are advised to follow the recommended doses periodically. Farmers are advised to start sprays of N:P:K (13:0:45)@2.0 kg/acre with 4 sprays at weekly intervals. The farmers of Jind District, where Pink Bollworm infestation has been observed are advised to open 20 green bolls from cotton field and if 2 surviving PBW larvae are observed in 20 green bolls, apply Profenphos 50EC @ 500 ml/acre in 200 lit of water followed by spray application of Indoxacarb 14.5SC@200 ml/acre. In case of rains, farmers are advised to drain out excess water from cotton fields. For root rot disease, spot application of Carbendazim 50% WP@ 2.0 g per litre of water or *Trichoderma harzianum* or *T. viridae* @10 g/ litre of water is recommended.

At Hisar, excess water is to be drained after the rainfall. Irrigation needs to be done in crops which are more than 6 to 7 weeks old with occurrence of insufficient rainfall. Mechanical hoeing needs to be done after every flush of rainfall or irrigation wherever possible without damaging plants. Split dose of Nitrogenous fertilizer @ half bag of urea per acre is to be given. Farmers are advised to monitor the population of sucking pests on randomly 10 plants (3 leaves/plants) and pink bollworm through pheromone traps (2-3 traps/acre) and fruiting bodies (20 flowers or bolls/acre). An initial spray of neem based insecticides like Nimbecidine or Achook 300 PPM @ 1 litre with 150-200 lit of water is suggested in case of whitefly population that has crossed ETL (18-24 adults/ 3 leaves). In case nymphal population of whitefly is high, spray of Pyriproxifen 10 EC @ 400 ml or Spiromesifen 240SC @ 240 ml with 200 lit of water per acre can be given. The population of thrips decline in the areas that received good amount of rainfall but the population of leafhopper may cross ETL (6 leafhoppers or 2nd grade injury) in the area having hot and humid environment, thus spray of Thiamethoxam 25WG @ 40 g or imidacloprid 17.8SL @ 40 ml with 150-175 litres water is suggested. In case of pink bollworm infestation in *Bt* cotton, farmers are advised to inform the Head, Department of Entomology, CCS HAU, Hisar. Farmers were also advised to be vigilant for the invasion of locust swarm in the cotton growing districts sharing boundaries with Rajasthan and inform the State Agriculture Department immediately. For root rot disease, spot application of Carbendazim 50 WP@ 2.0 g per lit of water or *Trichoderma harzianum* or *T. viridae* @10 g/ litre of water is recommended. Spot application with Carbendazim 50 WP solution (2g/L water) in *Fusarium* wilt patches to be done along with one meter radius of healthy plants in desi cotton.

RAJASTHAN												
Ajmer	0	1	0	0	0	0	0	3	6	6	20	<p>In southern Rajasthan (Banswara, Dunarpur, Pratapgarh, Udaipur, Rajsamand, Chittorgarh, Bhilwara etc), the crop is 21 days old at vegetative stage. Intercultural operations carried out during the reporting week. No incidence of weeds, pests or diseases.</p> <p>Advisory: Farmers are advised to make proper drainage system in their fields looking to forecast of rains. Still crop is free from insect pests and diseases. Farmers are also advised to be careful and keep updated about the attack of locust swarm in area. Spray neem-based insecticides (0.15%) @ 75 ml/15lit water on standing crop as feeding deterrent. Farmers should take necessary steps in consultation with State agriculture department.</p>
Jodhpur	0	0	0	17	0	0	0	0	1	3	11	
Nagaur							1	6	4	6	28	
Pali	8	0	0				0	0	8	22	13	
Sri Ganganagar	0	0	0	0	0	21	3	0	0	3	2	
ODISHA												
Koraput	11	2	0	0	1	0	14	13	2	2	7	<p>The crop is 24 to 31 days old at seedling stage The weather was hot and humid. Weeding, first top dressing and earthing up going on in all the districts. All the three types of weeds i.e. grasses, sedges and broad leaf weeds have infested the fields. No incidence of pests and diseases reported so far.</p> <p>Advisory: As no monsoon rains were received during the last week and dry spell is continuing almost in all cotton growing districts, farmers are advised to go for life saving irrigation wherever water is available. Weeding and earthing up should be done and first top dressing of fertilizer (50% K and 50% N) should be done at 25 to 30 DAS. Use fertilizer dose of 120:60:60 kg/ha for hybrids and 90:40:40 kg/ha for varieties. Micronutrients- ZnSO₄(25 kg/ha) and Boron (5 kg Borax/ha) should be applied at the time of first top dressing, if not applied as basal dose. Spray neem pesticides (1500ppm) @ 5 ml/litre of water for prevention of sucking pests incidence. Surveillance for incidence of sucking pests like aphids, leafhopper and thrips to be followed.</p>
Kalahandi	0	0	0	0	0	0	13	10	3	2	5	
Balangir	2	0	0	0	18	0	18	12	8	0	0	
GUJARAT												
Amreli	8	0	0	1	0	0	5	4	23	20	1	<p>At Surat, the crop is in initial growth stage. The weather was cloudy. Weeds like Chido (<i>Cyprus rotundus</i>) Dharo (<i>Cynodon dactylon</i>) Tandaljo (<i>Amaranthus viridis</i>)</p>
Bhavnagar	1	0	0	3	0	0	8	8	28	10	2	

Jamnagar	0	12	4	3	0	0		1	1	4	7	5
Rajkot	11	2	3	0	7	0		3	2	9	16	2
Junagadh	7	6	11	7	0	0		2	3	13	21	2
Sabarkantha								0	1	9	7	7
Surendranagar	7	0	0	0	0	0		1	0	11	13	1
Ahmedabad	11	11	0	0	0	1		3	2	15	7	2
Baroda	2	1	3	0	1	1		10	9	9	9	5
Patan								0	0	2	3	3
Mehesana								0	1	9	5	3
MADHYA PRADESH												
Khargaon								12	16	20	13	10
Dhar	4	13	0	6	1	0		3	3	22	13	8
Khandwa												

and few others have infested the crop. No pests and diseases noticed.

At Junagadh, the crop is 40 days old at vegetative stage. Cotton sowing is completed in Saurashtra region of cotton growing area. Gap filling, interculturing and weeding are carried out. Kharif weeds, *Echinochloa crus-galli* (Sambo), *Eclipta alba* (Bhangro), *Euphorbia hirta* (Dudheli), *Phyllanthus fraternus* (Bhoi amali), *Portulaca sativa* (Luni), *Amaranthus viridis* (Dhimano) are in abundance. In some early sowing cotton crop, pink bollworm infestation has been recorded. Due to continuous rains, phoma blight observed some areas for which farmers were asked to spray Pyraclostrobin 5% + Metiram 55% @ 20 gm in 10 lit water. Incidence of collar rot in cotton has been recorded in few fields. Farmers were advised to drench Carbendazim 50 WP @ 2 g /lit of water.

Advisory:

At Surat, farmers are advised to go for post emergence spray of Quinalofop ethyl @ 50 g a.i. /ha to 15 days cotton crop with one hand weeding as the most effective method for the management of weeds

At Junagadh, farmers are advised to apply Ammonium Sulphate fertilizer @ 15 kg per acre 30 DAS. Inter-cultural, weeding and earthing-up should be done. For pink bollworm infestation, install 5 pheromone traps per ha and monitor male moth catches in trap. When 8 male moths are caught in trap per day or 10 per cent rosette flower observed, spray neem oil @5ml per lit of water or Profenofos 15 ml in 10 lit of water. *Trichogramma chilonis* egg parasitoid should be released in the cotton fields. For fungal leaf spot/blight farmers should spray Pyraclostrobin 5% + Metiram 55% @ 20 gm or Propaconazole 25% EC @10 ml or Propineb 70% WP @ 25g in 10 liter water.

At Khandwa, the crop is 62 to 89 days old at vegetative to flowering/square formation stage. The weather was cloudy, warm and humid. Inter cultivation operation and fertilizer application as per requirement was taken up. *Cynodon dactylon*, *Cyperus rotundus*, *Commelina sp.* and *Parthenium hysterophorus*, *Euphorbia hirta* and *Digera arvensis* etc. were the major weeds that infested the fields. Leafhopper, aphids and whitefly where population crossed ETL, Imidachloprid/ Thiamethoxim / Acetamiprid was sprayed. Scattered infestation of termite was noticed for which drenching with Chlorpyrifos 20EC @1200 ml/ha was recommended as per requirement. No incidence of diseases.

MAHARASHTRA													
Dhule							3	11	13	5	1		
Nandurbar							4	7	14	8	3		
Jalgaon	53	42	0	23	7	0	8	26	14	7	3		
Ahmednagar	4	0	0	19	0		12	20	8	14	16		
Aurangabad	1	22	0	0	0	2	15	33	15	14	10		
Jalna	0	42	0	0	0	0	20	29	14	19	20		
Beed							13	17	15	12	23		
Nanded	0	0		0	0	2	13	17	15	12	23		
Parbhani	12	0	0	3	0	2	11	13	19	15	26		
Hingoli							12	13	18	25	24		
Buldhana	26	6	0	0	0	31	13	30	17	13	15		
Akola	54	8	0	0	0	5	14	29	18	15	11		
Washim	0	0	0	0	0	0	17	24	12	23	22		
Amravati	51	17	0	0	2	7	16	29	21	20	11		
Yavatmal							15	21	11	24	15		
Wardha	2	14	0	0	1	1	19	36	13	25	12		
Nagpur	9	6	0	0	30	3	18	34	16	22	11		
Chandrapur	65	6	0	0	88	42	16	27	8	15	9		

Advisory:

Inter cultivation operations as per field condition and fertilizer application 25% N, 50% P and 50% Potash is to be done.

At Akola, the crop is of 30 to 35 days old and in vegetative stage. The weather during the reporting period was cloudy and rainy. Thinning, hoeing and weeding operations, weedicide spray are going on. Some grassy weeds particularly *Cyperus rotundus* are prominent ones along with some broadleaf weeds observed in the cotton fields. Some cotton fields are heavily infested with *Commelina* weed species also. Incidence of sucking pests noticed in some fields. No incidence of diseases.

At Rahuri, the crop is 32 to 65 days at vegetative to flower initiation stage. The weather was clear and cloudy. Weeding, hoeing and fertilizer application were taken up. Lavala, Hariyali, Choti dudhi Chandvel, Undirkani etc. were the major weeds that infested the fields. Infestation of leafhopper, whitefly, thrips, aphids and pink bollworm observed below ETL.

At Nanded, the crop is 28 to 51 days old at square formation to flowering stage. The weather was clear to cloudy. Intercultural operations like weeding, fertilizer application, crop protection measures were taken up. The major weeds that infested the fields were *Cynadon dactylon*, *Cyperus rotundus*, *Digeria arvensis*, *Merremia emarginata*, *Xanthium strumarium*, *Cassia tora*. Incidence of Aphids noticed in the fields. No incidence of diseases.

Advisory:

At Akola, farmers are advised to drain out the excess water from fields in the area where heavy rainfall occurred. Some symptoms of para wilting were observed in cotton some fields. The farmers were suggested to undertake the drenching of Copper Oxychloride 25 gm + Urea 100 gm in 10 lit of water. The infestation of some grassy weeds and broadleaf weeds was observed in cotton field. Farmers are advised to undertake the spray of post-emergence herbicide Pyrithiobac Sodium 10 % EC @12.5 to 15 ml per 10 lit of water for broad spectrum weed control or spray of Quizalofop ethyl 5 % EC @15ml per 10 lit of water to manage grassy weeds in cotton. It is also advised to carry out the intercultural operations like hoeing and weeding in cotton. Apply first split of 40 Kg N (90Kg Urea per ha.) for irrigated hybrid cotton and 30 Kg N (65 Kg urea per ha.) for rainfed hybrid/hirsutum cotton as top dressing dose of chemical fertilizers. For the management of sucking pests of cotton, it is advised to spray Acetamiprid 20 SP 20 gram per acre based on ETL

