

ICAR-Central Institute for Cotton Research, Nagpur

Weekly Advisory for Cotton Cultivation from 23rd to 29th September '2019

Date	ACTUAL RAINFALL in mm IMD					PREDICTED RAINFALL in mm IMD						ADVISORY
	SEPTEMBER					SEPTEMBER						
	19	20	21	22	23	24	25	26	27	28	29	
PUNJAB												
Ferozpur						0	0	0	0	0	4	<p>At Bhatinda, the crop is 120 to 125 days old at boll formation and boll opening stages. Whitefly population varied from 2 to 15 per three leaves, jassid 0 to 8 per three leaves and thrips incidence from 0 to 12 per three leaves. Leaf blight symptoms were observed at some locations.</p> <p>At Faridkot, the crop is 133 days old at boll formation and development phase. Irrigation and foliar fertilization of KNO₃ and Magnesium sulphate were given. Incidence of sucking pests was below ETL. Incidence of cotton leaf curl disease was observed in all the Bt hybrids. Leaf spots were also observed at few locations.</p> <p>Advisory: Farmers should carry out monitoring of fields early in the morning before 10 a.m. preferably. If whitefly population crosses ETL, farmers are advised to spray Flonicamid 50 WG @80 g/acre or Ethion 50 EC @ 800ml/acre. Sprays should be carried out either early in the day or later in the afternoon. Farmers are advised to manage whitefly to prevent further spread of virus. For the management of leaf spots spray the crop with carbendazim 50 WP 400 gm or Pyraclostrobin 20% WG 200gm or Metiram 55% +Pyraclostrobin 5% WG 400 gm in 200 lit of water per acre. For the management of bacterial blight spray with Copper Oxychloride 400gm+ Streptocyclin 20gm in 200 lit. of water per acre.</p>
Faridkot	0	0	0	0	0	0	0	0	0	0	0	
Mukatsar					0	0	0	0	0	0	0	
Bhatinda	0	0	0	2.2	0	0	0	0	0	0	0	
Sangrur						0	0	0	0	0	3	
Ludhiana	0	0	0	0	0	0	0	3	14	8	20	
HARYANA												
Hissar	0	0	0	0	0	0	0	4	0	0	0	<p>At Sirsa, the crop is 120 to 130 days old at reproductive and boll opening stage. The crop is in good condition and in reproductive stage. Average whitefly population ranged between 8.6-12.0, thrips 0-0.8 and leafhopper 0-1 /3leaves. Parawilt symptoms have been noticed at few isolated locations. No pink bollworm (PBW) infestation in farmers' field has so far been reported but trap catches of PBW at a location in front of gineries in Distt Sirsa and Uchana (Jind) and Shamshabad patti (Sirsa) have been recorded.</p> <p>At Hisar, the crop is 134 to 154 days old at boll formation to boll opening stage. Weather was partly cloudy/ /clear during the reporting week. Picking of cotton has already been initiated in some areas. Whitefly population ranged from 7.1 to 24.9 adults per 3 leaves and jassid from 0.0 to 3.4 nymphs per 3 leaves. The incidence of thrips was not noticed in any fields. Incidence of sooty mould was observed in several fields of Ratera and Mujadpur villages. Whitefly population is on the increase while jassid are on decline.</p>
Jind						0	0	0	0	6	0	
Sirsa						0	0	0	0	0	0	
Rohtak	0	0	0	0	5	0	0	11	0	0	0	

												Incidence of cotton leaf curl disease (CLCuD) was less. <i>Myrothecium</i> leaf spot and sooty mould were also observed. Advisory: For whitefly management, apply Diafenthiuron 50 WP @ 200g/acre or Ethion 50% EC 800 ml /acre. Apply Flonicamid 50 WG @80g/acre or Dinotefuran 20% SG 60g/acre in case the mixed infestations of whitefly and jassid is noticed. If higher population of eggs and nymphs is observed under the leaves, then application of Pyriproxifen 10% EC(400-500 ml/acre) or Spiromesifen 22.9%SC (200ml/ acre) is advisable. In arboreum (Desi) cotton, if the incidence of spotted bollworm is observed, apply Spinosad 45%SC @75ml/acre or Indoxacarb 14.5 % SC @200ml/acre in 200 lit of water. In case of parawilt, farmers are advised for spot spraying of Cobalt chloride @1.0g/100 lit water on affected plants only and Carbendazim 50 WP 400 gm or Pyraclostrobin 20% WG 200gm or Metiram 55% +Pyraclostrobin 5% WG 400 gm in 200 lit water for leaf spots is advisable. In case pink Bollworm infestation is observed in NonBt or at any selective BG-II location(adjoining to ginneries), farmers are advised to apply Thiodicarb 75WP@250g or Quinalphos 20AF@500ml/acre. For the management of boll rot prophylactic spray with Copper Oxychloride 400gm+ Streptocyclin 20gm in 200 lit. of water per acre may be taken up.
RAJASTHAN												
Ajmer	0	0	0	0	0	0	9	16	18	20	10	
Jodhpur	0	0	0	0	0	0	0	9	6	0	8	
Nagaur	0	0	0	0	0	0	3	10	0	0	6	
Pali	0	0	0	0	0	0	26	61	31	39	32	
Sri Ganganagar	0	0	0	0	0	0	0	0	0	0	0	At Sriganganagar, the crop is 120 to 145 days old at boll formation and boll bursting stage. Need based irrigation applied during the reporting week. Jassid noticed below ETL (0.17-0.67/3 leaves), Whitefly incidence below ETL(8.33-19.33/3leaves), thrips population observed ranging from 1.33- 4.67/ 3 leaves. Incidence of <i>Earias spp.</i> on desi and non- Bt hirsutum cotton have recorded 1.33-2.67 larvae/20 plants. 1.67-2.67 adult moth of pink boll worm catches per pheromone trap/ week. Occurrence of cotton leaf curl virus disease (CLCuD PDI 15-20 %) at farmers fields recorded. At Banswara, the crop is 83 days old at vegetative to flowering and boll formation stages. Crop condition is still good but fields are submerged and plants stunted due to continuous heavy rains and less sunshine hours. The population of jassid was above ETL. The infestation of whitefly observed below ETL but bollworm infestation still not recorded. No incidence of diseases. Advisory: For whitefly management, apply Diafenthiuron 50 WP @ 200g/acre or Ethion 50% EC 800 ml /acre. Apply Flonicamid 50 WG @80g/acre or Dinotefuran 20% SG 60g/acre in case the mixed infestations of whitefly and jassid is noticed. Apply Spinosad 45%SC @75ml/acre or Indoxacarb 14.5 % SC @200ml/acre in 200 lit of water against spotted bollworm. Install pheromone traps for monitoring of PBW (5/ha) and also monitor rosette flowers due to PBW. Parawilt affected plants can be saved by spraying Cobalt chloride @ 10mg/lit of water (10 ppm) immediately after the appearance of the symptoms. Do not repeat same insecticides as well as same group of insecticides. Avoid tank mixture of two

												or more insecticides.
ORRISA												
Koraput	1.8	1	0	0	0	49	32	17	11	18	20	<p>The crop is 97 to 107 days old at boll formation and development stage. The weather was hot and humid. Cross bunds between two rows of cotton were made to conserve rain water. Regular monitoring for pest and disease incidence and plant protection measures going on. Weed infestation was reduced by taking control measures. Stem weevil, Spodoptera, Spotted bollworm, jassid, whitefly and thrips infestation reported from the cotton growing districts. No major cotton diseases are reported from any of the cotton growing districts.</p> <p>Advisory: Farmers are advised to regularly monitor the crop to know about incidence of any pest and diseases. If the population of sucking pests crosses ETL, spray Flonicamid 50 WG @ 4g/10 lit of water or Thiamethoxam 25 WG @ 2 g/10 lit of water. Spotted bollworms can be controlled by spraying Chlorantraniliprole 18.5 SC@3 ml/10 lit or Indoxacarb 14.5 SC 10 ml per 10 lit of water. For controlling <i>Spodoptera</i> and stem weevil, spray Profenophos @ 20 ml/10 lit of water. Provide cross bunds in the furrows for conservation of rain water during the month of September as the monsoon will recede. For the management of boll rot prophylactic spray with Copper Oxychloride 400gm+ Streptocyclin 20gm in 200 lit. of water per acre may be taken up.</p>
Kalahandi	0	11.6	0	0	0	16	52	24	28	9	37	
Balangir	8	0.9	0	0	29.4	11	26	9	37	5	36	
GUJARAT												
Amreli	0	0	3	5	0	8	36	33	44	25	27	<p>At Junagadh, the crop is 99 days old at flowering and boll development stages. Weeding, earthing up and application of MOP and SSP were taken up. Weed infestation is on the increase due to continuous rains. Thrips incidence below ETL but jassid above ETL was noticed. Heavy attack of <i>Corynospora</i> leaf spot and <i>Ascochyta</i> blight recorded in farmers' fields.</p> <p>At Surat, the crop has entered into flower initiation stage. The weather was cloudy. Fertilizer application and weeding have been taken up. Incidence of leaf hopper and thrips noticed above ETL. Bacterial leaf blight was also noticed in the plants.</p> <p>Advisory: Due to heavy to heavy rainfall in Saurashtra region in some parts, fields are under water logging condition. Farmers are advised to do interculturing, weeding and earthing up operations. Soil application of Ammonium sulphate or spray of 19-19-19(N-P-K-) water soluble fertilizer 1% is recommended. To control weeds, spray Quizalofop ethyl 5 EC 20 ml in 10 lit of water. In areas under water logging condition, spray 10mg/lit. of water (10ppm) Cobalt chloride. The incidence of thrips and jassids population are likely to increase in the forthcoming days, so spray Flonicamid 50 WG @ 4g/10 lit of water or Thiamethoxam 25 WG @ 2 g/10 lit of water per 10 lit of water. To manage fungal foliar</p>
Bhavnagar	0	0	0.4	0	0	6	24	33	18	14	37	
Jamnagar	0	0	0	1.5	0	16	25	6	24	31	39	
Rajkot	0	0	12	3	0	16	23	12	21	21	39	
Broach	1.4	0.6	27	0	0	33	16	24	20	7	40	
Sabarkantha						25	15	32	57	31	35	
Surendranagar	7	0	0	0	0	3	18	15	27	19	37	
Ahmedabad	2	0.3	0.7	0	1	35	12	15	18	22	48	
Baroda	8	0	16	0	12	52	37	47	41	20	40	
Patan						4	7	22	27	22	12	
Mehsana						10	0	6	21	22	16	

												disease spray carbendazim 50 WP 400 gm or Pyraclostrobin 20% WG 200gm or Metiram 55% +Pyraclostrobin 5% WG 400 gm in 200 lit water per acre. For management of bacterial blight and boll rot spray Copper oxychloride 400g + streptomycin 20g in 200 lit of water per acre. Install pheromone traps (5 traps/ha) to monitor pink bollworm. Collect and destroy rosette flowers of pink bollworm with larva.
MP												
Khargaon	15.5	17	14.6	45.8	1.4	53	61	46	42	36	25	At Khandwa, the crop is 88 to 138 days old at vegetative to flowering and squaring to boll formation stage. The weather was mostly cloudy to rainy. Intercultural practices, insecticides and fertilizer application were done during the reporting period. Jassid and whitefly incidence was controlled by spraying as per the recommended measures. Pink bollworm incidence noticed in initial stages. Root rot seen in waterlogged areas and controlled by drenching with Carbendazim 2g/lit particularly near affected plants. Advisory: Farmers are advised to take up weeding and intercultural operations during the forthcoming week. Fertilizer may be applied @ 150:75:40 Kg/ha. 25% N at 90 days. In the areas where jassid and whitefly crosses ETL apply Imidachloprid 17.8SL 3ml or Thiamethoxam 25%WG 2 g or Acetamiprid @ 2 gm/10 lit of water. Install pheromone traps @ 5/ha to monitor Pink bollworm in areas where boll formation has started. For the management of boll rot prophylactic spray with Copper Oxychloride 400gm+ Streptomycin 20gm in 200 lit. of water per acre may be taken up.
Dhar	1	8.1	4.3	8.4	0	20	24	27	41	21	20	
Khandwa	0	0	0	0	0	25	22	34	31	25	28	
MAHARASHTRA												
Dhule	0	0	0	0	0	25	7	33	41	27	18	At Akola, the crop is 86 days old at flowering and boll formation stage. Weeding, hoeing and spraying are in progress. Weed infestation high due to continuous rains. Medium infestation of sucking pests recorded. No incidence of diseases. At Nanded, the crop is 78 to 103 days old at flowering to boll development stage. The weather was cloudy. Intercultural operation and plant protection measures were taken up. Weed infestation is high. Thrips infestation above ETL is observed in many locations. Infestation of whitefly is observed at few locations. Infestation of pink bollworm is very low. Infestations of Bacterial blight is observed at few locations. At Wardha and Yavatmal boll rot infection was reported and likely occurred due to continues rainfall. At Ahmednagar infestation of Fall armyworm (<i>Spodoptera frugiperda</i>) which migrated from maize observed to cause damage to cotton. Advisory: Spray Flonicamid 50 WG @ 4 g or Buprofazin 25% @ 8 ml per 10 lit water against thrips. Change lures of pheromone traps erected for mass trapping of pink bollworm
Nandurbar	6	7	12	0	22	40	47	83	46	33	18	
Jalgaon	1	18	0	0	0	42	18	30	28	27	20	
Ahmednagar	1.2	13.6				52	60	37	24	30	7	
Aurangabad	3	45	2	0.7	45	14	27	39	36	10	19	
Jalna	0		21		10	47	41	30	28	22	23	
Beed	30	9	0	0	0	67	66	30	24	18	12	
Nanded	0	30	0	0	0	36	55	36	4	9	16	
Parbhani	0.3	55.4	21	0	0	67	40	30	11	12	12	
Hingoli	0		70	0		33	41	29	10	9	15	
Buldhana	2	38	29	0	0	75	35	47	36	24	23	
Akola	0.8	0.6	34.8	17	46.4	75	30	56	37	24	22	
Washim	0	0	21	0	0	32	55	41	37	24	22	
Amravati	7	2.2	2	1	0	75	52	56	37	24	30	
Yavatmal	0	0	27.8	0	0	31	52	39	6	11	23	
Wardha	0	1.5	0	22	0	33	32	48	11	6	13	

Nagpur	22	4.8	1.4	0.4	0	42	36	48	15	7	32	moths. Spray 5 % NSKE or <i>Metarhizium anisoplae</i> @ 40 g or Thiodicarb 75 WP @ 20 g per 10 lit water for management of pink bollworm during flowering stage considering ETL.
Chandrapur	3	0	0	0	0	55	40	37	7	9	25	<p>Management of Fall armyworm</p> <p>In order to prevent migratory movement of Fall armyworm from infested maize fields to cotton and other crops in the vicinity, cutting and incorporate maize stubbles in the field with rotavator immediately after harvesting of maize so that larvae and pupae get crushed along with the stubbles. Spraying entomopathogenic fungi <i>Metarhizium anisoplae</i> @ 5 g or <i>Nomuraea rileyi</i> @ 5 g per litre of water on the infested maize stubbles before rotavating the field will help entomopathogenic fungal bioagent to mix thoroughly and establish in the soil. The high atmospheric relative humidity due to rains is favourable for establishment and spread of fungal bioagents. The maize crop residues can also be used for making silage as a feed for livestock</p> <p>The infested flowers and green bolls of cotton should be promptly removed and destroyed along with the larvae. In order to avoid further damage to already infested cotton crop, immediate spraying of Spinetoram 11.7 SC @ 0.8 ml or Chlorantraniliprole 18.5 SC @ 0.3 ml per litre of water may be done.</p> <p>After one week of spraying of chemical insecticides, spraying of entomopathogenic fungi <i>Metarhizium anisoplae</i> @ 5 g or <i>Nomuraea rileyi</i> @ 5 g per litre of water may be carried out. The favourable weather due to high relative humidity will help the fungal bioagent to establish and exert effective control of FAW.</p> <p>The migrated FAW larvae in mid developmental stage will soon enter pupation and the moths emerging from them will start laying eggs on available host crops in the area. Therefore, to monitor the moth activity, it is advised to install two pheromone traps per acre. The egg masses on the lower surface of leaves can be seen two to three days later the moths started emerging. Accordingly, timely measures of control can be initiated.</p> <p>The egg masses or newly hatched larvae that feed in groups appear on the lower leaf surface. Such leaves may be hand collected and destroyed along with egg masses and larvae. As the early instar larvae feed primarily on leaves, timely management at this stage will help to prevent economic damage to flowers and bolls.</p> <p>For the management of bacterial blight and boll rot prophylactic spray with Copper Oxychloride 400gm+ Streptocyclin 20gm in 200 lit. of water per acre may be taken up.</p>
TELANGANA												
Adilabad	2	7	0	0	0		55	39	3	18	23	At Nandyal, the crop is 51 to 96 days old entering from flowering to boll formation stages.

Warangal	6	19	0	53	63		39	6	6	12	13	Prevalence of humid weather with heavy rains during the reporting period. Draining of excess water from the field was done due to stagnation of water on account of heavy rains. Grassy and broad leaved weeds were noticed. Sucking pests like jassid whitefly and thrips were below ETL. Pink bollworm infestation in flowers was noticed, but below ETL. <i>Spodoptera litura</i> and <i>Earias vitella</i> incidence was recorded on BGII. <i>Spodoptera</i> population might be migratory from surrounding fields. <i>Alternaria</i> leaf spot disease incidence was noticed in few areas.
Khammam	17	0	34	5	1		33	16	11	7	12	
Karimnagar	3.3	14.4	5	0	0		26	19	9	6	9	
Mahabubnagar		0.4	0.2		0		44	45	0	5	9	
AP												
Guntur	4.8	0	0	39.4	7.4	38	32	24	17	8	14	At Guntur, the crop is at vegetative to square initiation and flowering stages. The weather was cloudy and rainy during the reporting period. Draining water from fields and second split application of fertilizers were done. Due to continuous rains, increased weed growth was observed. Incidence of thrips and jassids were noticed but controlled by spraying recommended insecticides. Pink Bollworm incidence noticed in traces in some cotton growing areas. Root rot disease was reported in some areas where continuous and heavy rains occurred. Drenching of root region with 3% Copper oxychloride to the root rot affected cotton plants. Advisory: Farmers are advised to drain water from the fields. For the management of sucking pests depending on ETL, farmers are advised to spray Imidacloprid 17.8 SL @ 80 ml or Acetamaprid @ 40 g or Flonicmide@ 60 ml or Difenthiuron@ 250g per acre. Regarding PBW, install pheromone traps and observe the severity of pest and if it crosses ETL, spray Neem oil @ 5 ml or Thiodicarb@ 1.5 g or Profenophos @ 2ml per lit of water. For the management of <i>Spodoptera</i> , spray Novaluran@ 1ml or Lufenuron @ 1ml per lit of water. For the management of spotted bollworm, spray Spinosad @ 60 ml or Indoxacarb @ 200ml per acre. Wherever water stagnation is noticed, farmers are advised to drain out the excess water from field and spray urea@ 20 g or DAP @ 10 g or 19-19-19 @ 5g per lit of water. Spray Carbendazim 50 WP 400 gm or Pyraclostrobin 20% WG 200gm or Metiram 55% +Pyraclostrobin 5% WG 400 gm in 200 lit water per acre against leaf spots. Foliar nutrition with 2% KNO ₃ to be given. Booster dose of 30 to 50kg urea/acre along with 15kg MOP in low lying fields to be given immediately after removal of water from fields. Farmers are advised to fix pheromone traps @ 5/acre to monitor pink bollworm infestation. Drench the root region with carbendazim 50 WP 25gm / 10 lit of water
Prakasam	0	0	0	2	0	98	89	53	10	9	16	
KARNATAKA												
Dharwad	10	14	0	0	0	9	19	21	24	0	8	In Chamarajanagara district, the crop is between 30 days to 140 days old. Population of sucking pests likes aphids (10 to 15/3 leaves), jassid (2 to 3/3 leaves), mirid bugs (5-6 for 25 squares) were noticed and in few fields tobacco streak viruses were observed to an extent of 10 to 15% (PDI). Similarly 3-4% of pink boll worm incidence was noticed. Overall the condition of the crop is good. At Dharwad and neighbouring districts, the crop is at flowering to early boll formation
Haveri					0	10	14	18	20	3	12	
Mysore	1	2	0	0	62	37	14	72	92	9	24	

													stage. Early sown crop is 90 days old. General growth of the crop is stunted due to continuous rains without any sunshine. Inter-cultivation, hand weeding and foliar applications of fertilizer were carried out. Weed population was checked under control. Thrips and jassid incidence was noticed in moderate status. Fipronil 5 SC @ 1.0 ml/L for thrips and Flonicamid 50 WG @ 0.3g/L or Dinotefuran 20 SP @ 0.3g/L for aphids were sprayed. Pink bollworm moths were noticed in the pheromone traps but below ETL. Spraying of neem based pesticide was recommended to the farmers. Incidence of leaf blight diseases was noticed in moderate status. Advisory: Thiamethoxam 25WG @ 2gm or Diafenthiuron 50 WP @ 12gm/ 10lt of water recommended for sucking pest and Thiodicarb @ 1 gm/lt for PBW recommended. At Dharwad and neighbouring districts, intercultivation, manual weeding and earthing up operations are to be taken up. Top dressing with urea and foliar application of nitrogen is recommended. Square dropping problems in the incessant rainfall situations is to be applied with NAA (Planofix) @ 0.5ml/lit water. Jassid and aphids to be managed by spraying Flonicamid 50 WG @ 4g/L or Dinotefuran 20 SG @ 3g/10L. Thrips by spraying Fipronil 5 SC @ 10 mL/10L. Leaf blight diseases management by spraying Metiram 55% +Pyraclostrobin 5% WG 20gm per 10 lit of water is recommended. Installation of pheromone traps at the rate of two numbers per acre is recommended in the early sown crops for monitoring of Pink bollworm moths activity.
TAMIL NADU													
Perambalur	1	22	4	0	18	18	33	13	0	0	0		The crop is 45 days old at vegetative stage. Intercultural operations of hoeing and weeding have been taken up. Incidence of aphids and thrips noticed below ETL. <i>Anthraco</i> leaf spot noticed.
Salem	11	0.5	1	0	0.2	51	38	18	17	9	4		At Srivilliputhur, the crop is 30 to 45 days old at vegetative stage. Weeding and top dressing of fertilizers have been taken up. Incidence of aphids, jassid and thrips noticed but below ETL. No incidence of diseases.
Trichy						49	38	29	10	6	0		Advisory: Remove and burn the infected plant debris and bolls in the soil. Rogue out the weed hosts. Farmers are advised to set up yellow sticky trap @ 5 / acre for monitoring the sucking pests. Farmers are advised to set up pheromone trap @ 2 / acre to monitor moth activity of pink bollworm.
Virudhunagar	3	4	0		1	20	21	116	17	12	8		

Rainfall (mm)

Legend

<5	5-20	21-50	51-80	>80
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0.0 mm rainfall (no rainfall)
Blank space express data not available.
Source: <http://imdagrmet.gov.in>