

**ICAR-Central Institute for Cotton Research, Nagpur**  
**XXIX Weekly Advisory for Cotton Cultivation from 28<sup>th</sup> to 4<sup>th</sup> October '2021**

Date	ACTUAL RAINFALL in mm IMD					PREDICTED RAINFALL in mm IMD					ADVISORY	
	SEPTEMBER					SEPTEMBER/ OCTOBER						
	24	25	26	27	28	30	01	02	03	04		
<b>PUNJAB</b>												
Ferozpur						0	0	0	0	6		<p>At Bathinda, the crop is 122 to 135 days old at boll development and boll opening stage. Foliar spray of 2% Potassium nitrate, Magnesium sulphate and insecticide spray were given to control sucking pests and pink bollworm attack. First picking of cotton has started in some fields. Whitefly population varied from 0-6/3 leaves). Jassid population 0-4/3 leaves and thrips population below ETL. .Incidence of pink bollworm was noticed in many fields with few locations above ETL (3 to 8% rosette flowers and 25 to 80% green boll damage). Cotton leaf curl virus disease of grade 0-2 was observed at few locations. Boll rot was observed in majority of the farmers' fields.</p> <p>At Faridkot, the crop is 133 to 146 days old at boll development and initiation of boll opening stage. One spray for sucking pest, fungicide and foliar application of KNO<sub>3</sub> has been given. Whitefly incidence ranged from 1.2-14.4/3 leaves, jassid incidence varied from 0.0- 4.8 /3 leaves. Thrips incidence was negligible. CLCuD was observed at few locations up to IV grade. Fungal foliar leaf spot was also observed at few isolated spots.</p> <p><b>Advisory:</b>            At Bathinda,. farmers are advised to spray the pink bollworm infested cotton fields with. Profenophos 50EC @ 600 ml or Indoxicarb 14.5 SC @ 100 ml or Emamectin benzoate 5g 100g or Fenvalerate 20 EC 200ml Or Cypermethrin 10 EC 200ml or Lambda cyhalothrin 5EC 200m/acre using protective gear and observing safety precautions. Give spray of 2% Potassium nitrate (13:0:45) at weekly interval in cotton fields during full bloom and boll development stage.</p> <p>At Faridkot, farmers are advised to spray Potassium nitrate (13:0:45) @ 2% to improve boll set(2 kg KNO<sub>3</sub> diluted in 100 lit of water). Cotton growers experiencing leaf reddening during last season in cotton crop must apply two sprays of magnesium sulphate @ 1% (through foliar application) at 15 days interval during full bloom and boll development to minimize leaf reddening issue in Bt cotton. Both chemicals should be sprayed at alternate weeks depending upon weather and rainfall. To enhance boll opening and uniform maturity farmers are advised to give last irrigation to cotton at the earliest possible as irrigation beyond this time will delay the timely sowing of following <i>Rabi</i> crop. Spray Osheen 20SG (Dinotefuran) @ 60 g/acre or Actara 25 WG (Thiamethoxam)@ 40 g/acre to control jassids.. If incidence of both jassid and whitefly increases beyond ETL, spray Osheen 20SG</p>
Faridkot	98	0	0	0	0	0	0	0	1	4		
Muksar						0	0	0	0	6		
Bathinda	0	0	0	0	0	2	0	1	0	4		
Sangrur						2	0	3	0	5		
Ludhiana	0	0	0	0	0	2	0	0	0	1		

											(Dinotefuran) @ 60 g/acre or Ulala 50 WG (Fonicamid) @80 g/acre. Farmers are advised to remain vigilant for pink bollworm incidence in flowers and bolls. Check for the presence of rosette flowers and damaged bolls to ensure bollworm presence.. For management of fungal foliar leaf spot during rainy season, the crop should be sprayed with Amistar top 325 SC @ 200 ml in 200 lit of water. First picking of timely sown cotton has started at farmer's field. Cotton should be picked dry, free from trash, with no dew on it.
<b>HARYANA</b>											
Hisar	0	0	0	0	0	2	0	0	0	1	At Sirsa, the crop is 145 to 155 days old at vegetative and reproductive stage. Average thrips incidence negligible, leafhoppers (2.0-2.8/3leaves) and whitefly (13.2-14.0/3leaves) has been reported. Pink Bollworm damage (10-40% green boll damage) reported at all locations in Sirsa. Mild to moderate CLCuD, root rot, fungal foliar spots and sudden wilt incidence were reported at many locations. Drying and wilting of plants as a result of nutritional imbalance due to poor root development in hard pan, root rot and root knot nematode observed.  At Hisar, the crop is 112 to 154 days old at boll formation to boll opening stages. The weather was cloudy and rainy. Lodging of cotton plants occurred due to heavy rainfall during the reporting week. Weeds like <i>makra</i> and <i>mothi</i> have infested the fields and <i>santhi</i> emerged after rainfall. Population of whitefly and leafhopper are declining and below ETL. Pink bollworm infestation was noticed in cotton growing fields of 14 districts of Haryana. Leaf curl virus disease and <i>Myrothecium</i> leaf spot were observed in farmers' fields.  <b>Advisory:</b> At Sirsa, sucking pests are below ETL at all locations but whitefly population is in the increasing trend.. Pink bollworm, green boll damage noticed at many locations of Sirsa and above ETL at 5 locations, an increasing trend in spread of PBW incidence was observed which needs strong off season management program. if population of leafhopper alone has crossed ETL, farmers are advised to apply Thiamethoxam 25 WG @40g or Fenpyroximate 5EC @ 300ml or Tolfenpyrad 15EC @300ml/ acre in 200 lit of water. In case mixed infestations of whitefly and leafhopper observed, either of them above ETL, apply Fonicamid 50WG @ 80g or Dinotefuran 20SG@ 60g/acre using 200 lit water. To control whitefly alone, apply Clothianindin 50WG@20 g per acre or Diafenthiuron 50WP 200g or Fonicamid @80g or Dinortefuran @60 g/acre in 200 lit of water. In case sooty mould appears on middle and lower leaves, Pyriproxyfen 10EC @ 500 ml/acre or Spiromesifen 22.9 SC @ 200 ml/acre should be sprayed at an interval of 4-5 days after spray of Diafenthiuron 50WP.The locations where pink bollworm incidence recorded above ETL ( >10percent green boll damage), apply Fenvalerate 20 EC (100ml/acre) or Lambda cyhalothrin 5% EC (200ml/acre) or Cypermethrin 10 EC (200 ml/acre) in 200 lit water. If incidence of root rot noticed, drench the roots with Carbendazim 50 WP @ 2g/lit of water.
Jind						1	0	0	0	3	
Sirsa						1	0	0	0	4	
Rohtak	0	0	0	0	0	2	1	1	0	0	

Foliar spray of Copper oxychloride 50 %WP @2.5g /lit or Copper sulphate 47.15%+Mancozeb 30% WDG @5 g/lit of water should be applied for management of boll rot. For FFS, foliar spray of Fluxapyroxad 167g/l + Pyraclostrobin 333g/l SC @ 0.6 g/L or Metiram 55%+ Pyraclostrobin 5%WG @ 2g/L or Azoxystrobin 18.2% W/W + Difenconazole 11.4 w/w SC @ 1 ml/lit should be given. In case of root-knot nematode incidence, apply bio nematicides (*Purpureocilliumlilacinum* and/or *Trichoderma* spp. and/or *Pseudomonas fluorescens* @2.5kg/acre as soil drenching to manage its attack. Plants show sudden drooping of leaves (wilting) but the root system remains intact. Also, drenching of Copper oxychloride 250g+2kgUrea / 100 lit water immediately after the appearance of the wilting symptoms on the affected plants should be done. If sudden wilting appeared after irrigation or rainfall or water stagnation, the affected plants can be saved by spraying Cobalt chloride @10mg/lit of water (10 ppm) immediately after the appearance of symptoms. There would be no recovery if permanent wilting has already set in and spraying is delayed...

At Hisar, farmers are advised to drain excess water from the fields after rains. Infested cotton with pink bollworm needs to be handled carefully in order to avoid spread of pink bollworm to new areas. One foliar spray of Potassium nitrate (1%) is suggested in the crops having developing green bolls. In case of manganese deficiency, foliar spray of MgSO4 (0.5%) should be done. Monitor the population of sucking pest and natural enemies twice in a week and apply insecticides only at ETL. Spray neem based insecticides @5ml/ lit water to manage managing initial building up population of sucking pests without harming natural enemies. In case of moderate infestation, foliar spray of Imidacloprid 200SL @ 40 ml or Thiamethoxam 25WG @40g/120-150 lit water is recommended. Whitefly nymphal population should be managed by spraying Pyriproxifen 10EC @ 400 ml or Spiromesifen 22.9SC @240 ml with 200 lit of water/ acre. In pink bollworm affected areas, install pheromone traps @ 2/ acre to monitor moth and destroy rosette flowers. Fields crossing ETL for pink bollworm should be sprayed with Cypermethrin 25EC @ 80-100 ml or Decamethrin 2.8EC @ 160-200 ml or Alphamethrin 10EC @ 100-125 ml followed by another spray of Profenophos 50 EC @ 800ml or Quinalphos 20AF @900-1100 ml or Thiodicarb 75WP @ 250-300g with 200 lit water/acre at 7-10 days interval. Continuous use of synthetic pyrethroids can be avoided at this stage as it may cause flare up of whitefly population. Foliar spray of copper oxychloride 50WP @ 400 g with 200 liters of water should be applied to manage boll rot. Use only recommended insecticides and tank mixing of insecticides should be avoided. Maintain optimum moisture and apply required dose of nutrients in cotton grown in light soils as this will help in managing parawilt. In case it appears, spray Cobalt chloride @ 2g/200 lit of water/acre within 24 to 48 hrs of appearance of symptoms. Foliar spray of Copper oxychloride 600-800g + Streptocycline 6-8g in 150-200 lit/acre should be given to control leaf spot diseases in cotton.

RAJASTHAN											
Ajmer	0	3	2	1	0	4	5	3	7	10	<p>At Sriganganagar, the crop is 120 to 149 days at boll development / boll bursting stages. Need based irrigation was given. Weeds like Itsit (<i>Trianthema spp.</i>), tandra (<i>Digera arvensis</i>) Motha (<i>Cyperus rotundus</i>) have infested the crop. CLCuD appearance noticed in the crop (PDI 10 to 15 %). Jassid attack recorded at below ETL, Whitefly incidence has started increasing and has reached near ETL(0-15/3 leaves) and thrips population observed below ETL..Incidence of spotted and pink bollworm recorded on desi and non- <i>Bt</i> American cotton at ETL.</p> <p>In southern Rajasthan (Banswara and surrounding districts), the sown crop is 101 to 107 days at flowering, boll formation and boll development stages. Intercultural operations were carried out. Fields are infested with weeds due to continuous rains. . Jassids infestation noticed below ETL. No bollworm or whitefly infestation till date. The crop is free from diseases..</p> <p><b>Advisory:</b> At Sriganganagar, farmers are advised to spray Diafenthiruron 50 WP @ 1.0g/ lit of water to control whitefly attack...Spray Emamectin benzoate 5 SG @ 0.5g or Thiodicarb 75 % WP @1.75g or Profenophos 50 EC @ 2.5 ml or Indoxacarb 14.5 SC @ 1.0 ml or Cypermethrin 25 EC @ 1.0 ml or Fenvalerate 20 EC @ 1. ml per liter of water to control spotted and pink bollworm in desi and non <i>Bt</i> American hybrids.</p> <p>The farmers of Southern Rajasthan (Banswara, Bhilwara, Chittorgarh, Dungarpur, Pratapgarh, Rajsamand and Udaipur etc) are advised to keep a vigil on parawilt incidence wherein plants show sudden drooping of leaves that ultimately get wilted. The affected plants can be saved by spraying Cobalt chloride @ 10mg/lit of water (10 ppm) immediately after the appearance of the symptoms. Install pheromone traps (6/ha) to control spotted and American bollworm. Farmers are advised to watch the crop and spray any one of insecticide (when infestation seen above ETL) against sucking pests <i>i.e.</i> Buperfezin 25 EC @ 1.25 lit/ha or Acetamiprid 20 EC @100 ml/ha or Diafenthiruron 50 WP @625g/ha or Flonicamid 50 WG @200g/ha. Do not repeat same insecticides as well same group of insecticides. Avoid tank mixture of two or more insecticides. Farmers are advised to make proper drainage system in their fields looking to forecast of rains.</p>
Jodhpur	12	0	0	0	0	4	0	1	7	9	
Nagaur						3	1	1	7	4	
Pali	40	0	0	0	0	6	4	2	14	23	
Sri Ganganagar	0	0	0	0	0	4	0	0	0	0	
ODISHA											
Koraput	0	27	48	8	0	14	12	7	10	15	<p>At Odisha, the crop is 90 to 102 days old at boll formation and boll development stage. Overall crop condition in all the cotton growing area of the State is good but in some areas with heavy rainfall and water logging, yellowing of plants and stunted growth was noticed along with dropping of squares. Foliar application of nutrients, weeding and spraying of pesticides and fungicides going on. All the three types of weeds grasses ( <i>Echinochloa sp.</i>,</p>
Kalahandi	0	0	0	0	0	6	7	5	7	10	
Balangir	0	20	15	3	0	5	5	10	5	7	

											<p><i>Cynodon</i> sp., <i>Brachiaria</i> sp, <i>Digitaria</i> sp, <i>Dactyloctenium</i> sp. etc) and sedges (<i>Cyperus</i> sp.) and broad leaf weeds (<i>Commelina</i> sp., <i>Phyllanthus</i> sp. <i>Croton</i> sp. etc) were observed in the cotton fields but with less population due to timely weed management. Manual weeding is going on to control the second flush of weeds. Incidence of sucking pests like thrips and jassids started but below ETL. In some organic cotton patches, where non Bt varieties and hybrids are grown incidence of American Bollworm .has been reported but below ETL. . Installed pheromone traps to monitor American and pink bollworms and <i>Spodoptera</i> in the cotton fields. Bacterial leaf blight reported from Kalahandi, Nuapada, Bolangir and Rayagada districts. <i>Alternaria</i> leaf blight, <i>Myrothecium</i> leaf spot and grey mildew reported from Bolangir, Nuapada and Kalahandi districts. In some areas with water logging problems, leaf reddening has been reported. Flower and boll drop occurred due to heavy rainfall in all the cotton growing districts of the State.</p> <p><b>Advisory:</b> Farmers are advised to go for manual weeding wherever weed population is high. Regular monitoring of cotton crop for incidence of sucking pests like aphids and thrips and other pests like <i>Spodoptera</i> and spotted bollworm is recommended. Install pheromone traps @5 numbers/ha to monitor bollworm incidence. Spray Thiomethoxam 25WG @ 2g or Flonicamid 50 WG @ 4g/10 lit of water to control jassida and thrips. Spray Profenophos 50 EC @ 20 ml, Emamectin Benzoate 5SG @ 5g/10 lit of water to manage bollworm attack. Spray Mancozeb + Carbendazim @ 25 g/10 lit water to manage fungal leaf spot diseases like <i>Alternaria</i> leaf blight, <i>Myrothecium</i> leaf spot and Grey mildew Spray Streptocycline 1 g + Bavistin 15 g/10 lit of water to control Bacterial Leaf Blight disease. Leaf reddening noticed in water logged areas for which 1% MgSO4 + 1% urea is to be sprayed twice at 15 days interval. Spray of Alpha Naphthalic Acetic Acid 4.5SL@5 ml/10 lit of water is recommended to check natural dropping of squares and flowers. Excess rain water should be drained out from the cotton field to avoid water logging in cotton.</p>
<b>GUJARAT</b>											
Amreli	0	0	1	23	0	110	120	20	7	6	<p>At Surat, cotton sown is 85 to 90 days old at squaring, flowering and boll formation stage. Manual weeding was done during the reporting period. The field is infested with Chido (<i>Cyperus rotundus</i>), Satodi (<i>Trianthema monogyna</i>), Dhamdo (<i>Amaranthus viridis</i>) and others. Incidence of sucking pests noticed below ETL and Bacterial Leaf Blight (BLB) observed from low to medium.</p> <p>At Junagadh, the crop is 97 days old at flowering and boll development stages. No Intercultural operations were taken up due to heavy rains. <i>Corynospora</i> leaf spot, <i>Anthracnose</i> disease infection and external boll rot were observed in severe forms. Shedding of squares, flowers and bolls were observed due to continuous rains and water logging condition in soil</p>
Bhavnagar	0	1	71	4	0	95	65	11	6	2	
Jamnagar	36	3	0	0	63	33	90	65	13	3	
Rajkot	0	1	0	33	0	65	100	65	14	7	
Junagadh	15	7	0	0	17	65	190	65	7	4	
Sabarkantha						26	30	17	46	0	
Surendranagar	0	21	1	10	0	51	82	21	17	5	
Ahmedabad	0	11	1	12	0	44	70	18	12	0	
Baroda	0	0	42	15	0	70	65	13	12	6	
Patan						11	39	27	10	0	
Mehesana						7	34	14	15	0	

**Advisory:**

At Surat, farmers are advised to apply Flonicamid 50 WG @3g/10 lit or Imidacloprid 17.8 SL@3ml/10 lit or Thiamethoxam 25 WG @3g/10 lit once the incidence of sucking pests crosses ETL. Monitor the cotton crop at squaring and flowering stages for presence of pink bollworm larvae within rosette flowers in fields and destroy the damaged flowers. Install pheromone traps (5 traps/ha) to monitor pink bollworm. Apply Chlorpyrifos 20 EC @ 25 ml or Quinalphos 20 AF @ 20 ml or Thiodicarb 75 WP @ 20 g or Profenophos 50 EC @ 30 ml or Indoxacarb 14.5 SC @ 5 ml per 10 lit of water wherever pink bollworm crosses ETL (10% damage to fruiting bodies).. If persistence of cloudy weather and drizzle rain, farmers are suggested to apply prophylactic spray of Copper oxychloride 50 WP @ 25 g + Streptocycline @ 1g per 10 lit of water for the management of internal boll rot and bacterial leaf blight. In case of heavy rains, farmers are advised to drain out excess rain water from the cotton fields to avoid water logging condition as there is medium to heavy rainfall in South Gujarat. Spray Magnesium sulphate @ 1% + Urea 1% twice at 15 days interval during full bloom and boll development stages to control leaf reddening in *Bt* cotton. Application of urea (2%) at the base of plant (root system) is recommended by making 3-4 holes with stick or rod for proper aeration to reduce parawilting in the crop. If it persists, drench with Copper oxychloride 50 WP @ 25g or Carbendazim 50 WP @ 20 g in 10 lit of water. Spray Carbendazim 50 WP @ 10g or Propiconazole 25 EC@10ml or Propineb 70 WP @25g or Azoxystrobin 18.2% w/w + Difenoconazole 11.4% w/w SC @ 10ml in 10 lit of water to control fungal leaf spot/ blight/ boll rot.

At Junagadh, heavy rainfall was received. Farmers are advised to drain excess water from the fields. Apply Ammonium sulphate @20 kg/acre. If possible, take up intercultural operations for field aeration and spray water soluble fertilizers @19-19-19 or 13-0-45 (N-P-K) 100g + Micromix 25g or Naphthalic acetic acid 0.3g in 10 lit of water. Do not mix naphthalic acetic acid with other chemical pesticides and nutrients etc. during the spray. Fungal foliar disease should be managed by spraying Fluxapyroxad 167g/lit + Pyraclostrobin 333g/l SC @ 0.6 g/lit or Metiram 55%+ Pyraclostrobin 5%WG @ 2g/lit. Spray Flonicamid 50WG 4 g or Spinetoram 11.7 SC 7g in 10 lit of water or Dinotefuran 20 SG 3g in 10 lit of water if jassids population crosses ETL. Install pheromone traps @2/ acre to monitor moth of pink bollworm. When average male moth number reaches eight per trap per night for three consecutive days or ten percent rosette flowers are observed, schedule spray of Chlorpyrifos 20 EC 20ml or Quinalphos 25 EC 20ml or Thiodicarb 75 WP 25g or Profenophos 50 EC 20g or Indoxacarb 14.5 SC 7ml or Emamectin benzoate 5 SG 5g in 10 lit of water. Give foliar spray of Copper oxychloride 50 %WP @2.5g /lit + Streptocycline 1g/lit of water to manage boll rot. Spray Cobalt chloride @ 1g/100 lit of water immediately after the appearance of parawilt symptoms..

MADHYA PRADESH											
Khargaon											<p>At Khandwa, the crop is 125 to 135 days old at flowering, square formation, boll formation and boll bursting stages. The weather was mostly cloudy, humid with heavy rains Weeds like <i>Cynodon dactylon</i>, <i>Cyperus rotundus</i>, <i>Commelina benghalensis</i> <i>Digera arvensis</i>, <i>Celosia aggentia</i>, <i>Alternanthera sessilis</i>, <i>Tridax procumbense</i>, <i>Setaria gluaca</i>, <i>Eclipta alba</i> and <i>Commelina naudiculus</i>. Etc have infested the fields. Weeds infestation was controlled by hand weeding/ bullock drawn implement (Kulpa) as and when the field condition was conducive. Incidence of jassids, aphids and whiteflies noticed along with initial infestation of pink boll worm and grey weevil in traces. No incidence of diseases.</p> <p><b>Advisory:</b> Farmers are advised to take up intercultural operations as per requirement and field conditions. Apply systemic insecticides like Thiomethaxom, Acetamiprid or Flonicamid as per recommended doses. Install pheromone traps @4/acre to regularly monitor pink boll worm. When average male moth number reaches eight per trap per night for three consecutive days, then start spraying with pesticides like Thiodicarb/ Profenophos/ Neem oil 1 EC as recommended.</p>
Dhar	39	4	5	0	0	65	29	12	7	1	
Khandwa											
MAHARASHTRA											
Dhule	49	11	0	8	36	126	23	11	14	16	<p>At Akola, the monsoon crop is 100 to 107 days old at boll initiation and boll development stages. The pre monsoon crop is 125 to 130 days at boll development and boll bursting stages. July sown cotton is 80 to 90 days old at square initiation, boll initiation and boll development stages. Insecticides spray and drenching of fungicides to control the parawilt was carried out during the reporting week. Some fields are infested with weeds as weeding and other intercultural operations were not possible due to continuous rains. Infestation of sucking pests like jassids, thrips and whiteflies were observed in some fields. Pink bollworm attack was also observed in the cotton fields.. Leaf spots were recorded in some fields..</p> <p>At Nanded, the crop is 90 to 120 days old at flowering to boll development stage. Plant protection measures were taken up. Weeds like <i>Cynadon dactylon</i>, <i>Cyperus rotundous</i>, <i>Digeria arvensis</i>, <i>Meremia emerginata</i>, <i>Achyranthes aspera</i> and <i>Alternanthera sessilis</i>, have infested the fields. Thrips, leafhoppers, whitefly and pink bollworm incidence was observed. <i>Alternaria</i> and leaf blight was noticed in few fields.</p> <p>At Rahuri, the crop is 101 to 135 days at squaring, flowering, boll formation and boll bursting stages. The weather was cloudy and rainy during the reporting period. Weeding and foliar application of fertilizers is in progress. Weeds like <i>Lavala</i>, <i>hariyal</i>, <i>choti dudhi</i> <i>Chandvel</i>, <i>Undirkani</i> i etc. have infested the fields. Incidence of sucking pests and pink bollworm attack noticed but below ETL. Bacterial leaf blight 2 % and tobacco streak virus 1% noticed in the fields..</p>
Nandurbar	4	5	0	0	0	127	26	11	11	12	
Jalgaon	0	0	3	15	0	109	9	8	35	6	
Ahmednagar	16	0	13	20	3	46	6	4	8	35	
Aurangabad	34	8	0	45	0	108	7	14	11	21	
Jalna	0	0	0	42	0	97	7	14	35	18	
Beed	0	0	6	38	0	15	11	7	11	30	
Nanded	0	3	0	105	0	13	13	14	39	38	
Parbhani	0	11	27	32	0	28	12	7	12	15	
Hingoli	1	2	3	32	46	30	12	1	15	9	
Buldhana	0	51	0	61	0	53	5	1	19	13	
Akola	11	8	0	24	0	36	4	2	5	4	
Washim	0	0	0	64	0	48	5	2	9	8	
Amravati	6	28	0	23	0	15	4	2	7	6	
Yavatmal	7	5	2	3	1	13	2	4	8	9	
Wardha	0	38	0	12	0	9	2	2	9	8	
Nagpur	0	3	0	0	0	6	2	4	5	6	
Chandrapur	1	0	8	25	0	10	3	3	6	4	



**Advisory:**

At Akola, farmers are advised to drain out the excess water from fields in the area where heavy rainfall occurred. Spray 2 % urea at flowering stage and 2% DAP at boll development stage of cotton. It is recommended to spray NAA @ 4ml /10 lit of water to avoid natural shedding of squares and flowers of cotton and it is also suggested to undertake the spray of Livosin @ 1-2 ml/10 lit of water or Mepiquat Chloride 5% @ 1-2 ml per lit of water to restrict the excess vegetative growth of cotton. For the management of sucking pests of cotton above ETL, it is advised to spray Acetamaprid 20 SP 15g/ha or Profenofos 50% EC 20 ml/10 lit of water or Flonicamide 50 WG 3gm per 10 lit of water. Erect yellow sticky boards in *Bt* cotton fields. For management of pink bollworm, initiate spraying of Neem based insecticides like Azadiractin 300 ppm @ 100 ml or 1500 ppm @ 50 ml or 3000 ppm 40 ml/ 10 lit of water. After that, if infestation is more than 5% ETL, it is advised to use 50% dose of Profenofos 50EC 15 ml or Chlorpyrifos 50 EC @ 10 ml or Ethion 50%EC @ 20 ml/ 10 lit of water with neem based insecticides. It is also advised to use eggs @ 1.5 lakh/ha of *Trichogramma* in cotton fields. If the infestation of pink bollworm crosses ETL (more than 5% Infestation), it is recommended to take up spray of Thiodicarb 75% 20g or Indoxicarb 15.8% 10 ml/10 lit of water. If necessary, take up second spray of Profenofos 40%+ Cypermethrin 4 % 20 ml or Chloretraniliprol 9.3 %+ Lambda Cyhalothrin 4.6 % 5 ml/10 lit of water. If symptoms of para wilt is observed in cotton, drenching with Copper Oxychloride 25 gm + Urea 150 gm in 10 lit of water. It is also recommended to spray 1% urea and 1% Magnesium sulphate in boll development stage to avoid reddening of cotton in later crop stage. To avoid the rotting of matured bolls from outer side due to continuous rainfall, it is advised to undertake the spray of Propiconazol 25% EC 1 ml or Propineb 70 wp 2.5-3 g/lit of water and for internal rotting of bolls, spray Copper Oxychloride 50 wp 2.5 gm + Streptomycin 0.2 g/lit of water.. Spray of Spinosad 3ml /10 lit should be taken up against bollworm. For the management of *Myrothecium* leaf spot, it is advised to undertake foliar application of Copper oxychloride 0.3% or Carbendazim 0.1% or Mancozeb 0.25% to control the disease.

At Nanded, farmers are advised to provide drainage to protect crop from wilt due to water stagnation in view of predictions of heavy rains. Drenching of Copper oxychloride @2.5g/lit to infested plants should be done if *fusarium* wilt is observed. Detopping should be taken up at 90-100 DAS when crop attains 150 cm height. Spray Clothianidin 50 WDG @ 2.5g or Difenturon 50 WP @ 10g/10 lit to manage sucking pests considering its ETL. Foliar spray of Lambda Cyhalothrin 5% EC @ 8 ml per 10 lit should be applied for management of pink bollworm..

At Rahuri, farmers are advised to drain out excess water from the fields. Install pheromone



											traps for mass trapping of PBW @10/ acre. When 8 male moths are caught in trap/ day or 10 per cent rosette flower observed, change lures in pheromone traps as per expiry installed for monitoring pink bollworm infestation. Plucking of rosette flowers and destruction along with pink bollworm larvae should be carried out. Spray Profenofos 30ml or thiodicarb75 WP @20g or Emamectin benzoate 5SG 4gm in 10 lit of water if pink bollworm attack crosses ETL. Install yellow sticky traps @8-10/acre for whitefly and jassid, blue sticky traps @ 8-10/acre for thrips, spray NKE 5% or Azadirachtin. Once the infestation of sucking pests crosses ETL, spray <i>Verticillium lecanii</i> 50 gm /10 lit water or Buprofezin 25 SC 20 ml/10 lit of water or Fipronil 5% SC 20ml/10 lit of water or Flonicamid 50 WG 2 gm/ 10 lit of water or Fipronil 5% SC 20ml/10 lit of water for their management.. Drenching of Carbendazim 50 WP@ 20g/ 10 lit of water or <i>Trichoderma harzianum</i> or <i>T. viridae</i> @10 g/ lit of water should be done to control wilt and root rot affecting the crops. Spray Chlormequat chloride 50% SL @ 2 ml/10 lit of water to avoid excessive vegetative growth in cotton.
<b>TELANGANA</b>											
Adilabad	0	0	89	34	0	32	38	40	34	55	<p>In Adilabad, presently crop is at boll formation stage. Jassid and thrips noticed above ETL in some of location. The internal boll rot was noticed.</p> <p>At Warangal the crop is at flowering to boll development stage. The crop condition is good. The incidence of jassid and thrips was observed above ETL at few locations. Heavy incidence of Alternaria leaf spot, Bacterial blight and verticillium wilt was noticed in few fields. Heavy incidence of boll rot was observed in early sown area. Deficiencies of magnesium and zinc was also observed in few fields.</p> <p><b>Advisory</b> To control jassid spray Dinotefuron @ 3g or Flonicamid 50WG@ 4 g or Imidacloprid 17.8SL@ 3ml/ 10lit is suggested. To control thrips Dinotefuron 20 SG @ 3 g or Flonicamid @ 4g or Spiromesifen 22.9 SC @ 9 ml /10 liter is suggested. Instal pheromone traps @2 acre for regularly monitoring of pink bollworm incidence. If the infestation of pink bollworm crosses ETL (more than 10% green boll infestation), spray of Profenophos 50% EC @ 30 ml/10 lit or Indoxacarb 14.5 SC 5ml Or Emamectin benzoate 5SG 5g/10 liters of water. To control leaf spots &amp; external boll rot, carbendazim 50 WP @10 g or propiconazole 25 EC@10 ml or propineb 70 WP@25 -30 g or (metiram 55%+pyraclostrobin 5% WG) @20 g or (azoxystrobin 18.2% w/w+ difenoconazole 11.4% w/w SC) @ 10 ml or (Fluxapyroxad 167 g/l + Pyraclostrobin 333 g/l SC) @6 g or Kresoxim -methyl 44.3% SC @ 10 ml in 10 litres of water is recommended. To control internal boll rot Copper oxychloride @ 2.5 g + streptomycin @ 0.1 g/lit recommended. To control squares &amp; flower drop NAA @ 5ml/10 liters of water is suggested.</p> <p>At Warangal farmers are advised to monitor the crop for pest and diseases regularly. Spray</p>
Warangal	0	0	4	28	3	12	8	17	24	31	
Khammam	0	0	47	18	0	26	10	25	56	14	
Karimnagar	1	0	8	73	3	6	9	24	25	23	
Mahabubnagar	0	0	28	19	0	24	19	20	31	14	

											<p>Dinotefuron @ 3g or Flonicamid 50WG@ 4 g or Imidacloprid 17.8SL@ 3ml/ 10lit is suggested. To control thrips Dinotefuron 20 SG @ 3 g or Flonicamid @ 4g or Spiromesifen 22.9 SC @ 9 ml /10 liter is suggested. Instal pheromone traps @2 acre for regularly monitoring of pink bollworm incidence. If the infestation of pink bollworm crosses ETL (more than 10% green boll infestation), spray of Profenophos 50% EC @ 30 ml/10 lit or Indoxacarb 14.5 SC 5ml Or Emamectin benzoate 5SG 5g/10 liters of water. In case of verticillium wilt, advised to drench Carbendazim 50 WP@ 2g per litre of water. Spray Carbendazim 50 WP @10 g or propiconazole 25 EC@10 ml or propineb 70 WP@25 -30 g or (metiram 55%+pyraclostrobin 5% WG) @20 g or (azoxystrobin 18.2% w/w+ difenoconazole 11.4% w/w SC) @ 10 ml or (Fluxapyroxad 167 g/l + Pyraclostrobin 333 g/l SC) @6 g or Kresoxim -methyl 44.3% SC @ 10 ml in 10 litres of water for the control of fungal leaf spots and spray Copper oxychloride 25 g + streptocycline 1g in 10 lit of water for the control of bacterial blight and internal boll rot in cotton. Advised to spray magnesium sulphate 10 g/lit and zinc sulphate 2g /lit of water in case of deficiency.</p>
<b>ANDHRA PRADESH</b>											
Guntur	0	17	6	13	0	13	11	19	15	17	<p>At Guntur, the sown crop is 56 to 91 days old at vegetative to squaring and flowering stage. Low intensity of leaf spots and tobacco streak virus diseases were observed in isolated fields. Pink bollworm observed in June sown crop in few mandals near Guntur.</p>
Prakasam	5	31	3	3	0	12	15	14	20	25	<p>At Nandyal, the crop is 64 to 71 days old at vegetative and flower initiation stages. Mild sunshine with humid weather and slight showers of rainfall was received during the week. Grassy weeds like <i>Cynodon</i> spp., <i>Boerhavia erecta</i>, <i>Trianthema portulacastrum</i> have infested the fields. Thrips and jassids were noticed around ETL.</p> <p><b>Advisory</b></p> <p>At Guntur, farmers are advised to give foliar application of Boron @ 0.15% twice at 60 &amp; 90 DAS to reduce square shedding in the crop. Foliar application of MgSO<sub>4</sub> @ 1% twice at 45 DAS and 75 DAS is recommended to correct deficiency in identified fields. Stem application with Imidacloprid 1:20 at 60 DAS should be done to manage sucking pests. Erect pheromone traps @ 8-10 per acre for mass trapping of pink boll worm adults. Spray insecticides with ovicidal action, 5% NSKE or 5ml Neem oil or 2ml Profenophos 50EC or 1.25g Thiodicarb 75 WP/lit of water. Collect and destroy rosette flowers to control pink bollworm attack. Spray Fipronil 5% SC@ 2ml/lit to control thrips and Flonicamide 50 WP @ 0.3g/lit against jassids. Spray Propiconazole @ 0.1% against fungal leaf spots.</p> <p>At Nandyal, farmers are advised to monitor the crop regularly for sucking pest incidence and observe the ETL levels. Install pheromone traps at 45 DAS @ 10/ha to monitor pink</p>

											bollworm incidence or install pheromone traps at 45 DAS @ 20/ha for mass trapping of pink bollworm, yellow and blue sticky traps @ 8-10/acre for sucking pests. Chemical spray with Neem seed kernel extract @ 5% or Imidacloprid 200 SL@ 0.4 ml/l or Acetamiprid 20 SP @ 0.2 g/l or Thiamethoxam 25 WG @ 0.2 g/l or Fipronil 5 SC @ 2.0 ml/l or Flonicamid 50 WG @ 0.3 g/l is recommended to control sucking pests.
<b>KARNATAKA</b>											In North Karnataka, under UAS, Dharwad Jurisdiction (Dharwad, Haveri, Belagavi, Bagalakot, Vijayapur, Gadag & Uttarkannada Districts, the crop is 97 to 104 days old at square to boll formation stage. Cloudy and sunny days with little rainfall prevailed during the reporting week in cotton growing areas of all districts. Dominant weeds, <i>Cyanodon dactylon</i> and sedge, <i>Cyperus rotundus</i> , <i>Digitaria marginata</i> and <i>Tridax procumbense</i> have infested the cotton fields. Top dressing, hand weeding and inter cultivation for weed management was done. Top dressing with urea at 75 DAS was given. Thrips and leafhoppers and mirid bug infestation was in moderate status and aphids in low status. Pink bollworm moth traps were above ETL in few districts. <i>Alternaria</i> blight ( <i>Alternaria macrospora</i> ), wilt, bacterial blight and grey mildew with low to moderate status were recorded. Sprayed Flonicamid 50WP @ 0.3g/lit of water or Fipronil 5 SC @ 1.0ml/lit of water to manage sucking pests and Profenophos 50 EC @2.0 ml/lit of water to manage pink bollworm. Installed pheromone traps @12 no's/acre for mass trapping of PBW. Destroyed rosette flowers with PBW larvae. Sprayed Pyroclostrabin 5%+ Matiram 55% WG @3.5 g/lit of water to manage <i>Alternaria</i> blight. Drenched infected and nearby plants with Vitavax power @2g/lit. Sprayed Copper Oxychloride 50 WP @ 3g + Streptomycin sulphate @ 0.5g/lit water to manage Bacterial blight disease. Pink bollworm moth traps were above ETL in few districts. Sprayed MgSO <sub>4</sub> @ 1% to manage leaf reddening in cotton..
Dharwad						4	3	3	6	7	
Haveri	9	0	0	0	0	3	2	2	5	6	
Mysore	20	3	0	5	0	2	3	6	7	8	At Raichur, the early sown crop is 97 to 105 days old and late sown crop 75 to 80 days old. Very late sown crop is 50 to 55 days old at vegetative stage. Second intercultural operations were done for late sown crop and initiated for very late sown crop. Final top dressing with Urea and MOP for the early sown crop, third top dressing with Urea and MOP for late sown crop and second top dressing with urea and MOP for very late sown crop were given. Weeds were noticed in early sown crop. Inter-cultivation was done for the late and very late sown crop. Thrips were notice din few farmers' fields which was controlled by spraying Fipronil @ 1ml in 1 lit of water. Leaf hoppers and aphids were noticed in few farmers' fields for which Flomicamide @ 0.5ml in 1 lit of water or Dinetufuron @ 1 ml in 1 lit of water was applied against the pests. Mites attack was managed by spraying Sulphur @ 3g in 1 lit of water as recommended. Mealy bugs were noticed in some fields for which Buprofezin spray @1 ml in 1 lit of water was given..

At Chamarajanagar, the crop is 133 to 139 days old at boll opening stage. Harvesting is in progress. Incidence of leaf hoppers 2-3/3 leaves and pink bollworm 5 to 6% was observed. No incidence of diseases. Overall, the crop is in good condition..

**Advisory:**

In North Karnataka, under UAS, Dharwad Jurisdiction (Dharwad, Haveri, Belagavi, Bagalakot, Vijayapur, Gadag & Uttarkannada districts, farmers are advised to take up hand weeding and intercultural operations to manage weeds. Top dressing with urea at 75 DAS should be given. Spray Flonicamid 50WP @ 0.3g/lit of water to manage aphids and leafhoppers..Install pheromone traps @12 no's/acre for mass trapping of pink bollworm (PBW). Destroy rosette flowers with PBW larvae. Spray Profenophos 50 EC @ 2.0 ml/lit of water to manage pink bollworm in 60 to 70 days crop. Spray Pyroclostrabin 5%+ Matiram 55% WG @3 to 5 g/L of water to manage *Alternaria* blight. Drench Vitavax power @2g/lit to infected and nearby plants for management of wilt. Spray Copper Oxychloride 50 WP @ 3g + Streptomycin sulphate @0.5g/ lit water for the management of Bacterial blight disease. Spray MgSO<sub>4</sub> @ 10g/lit to manage leaf reddening in cotton Spraying of Carbendazim 50WP @ 1.0 g/lit of water is recommended to control grey mildew disease. Spray MgSO<sub>4</sub> @ 10g/lit to manage leaf reddening in cotton.

At Raichur, farmers are advised to take up intercultivation in late sown crop fields. Apply second top dressing with Urea and MOP to the late sown crop and third top dressing with Urea and MOP to early sown crop. Install pheromone traps @ 4/ acre and keep PBW lures in the traps to monitor PBW population. Drain out excess rain water in the cotton fields wherever excess rains were received. Spray Flomicamide @ 0.5ml or or Dinetufuron @ 1 ml in 1 lit of water against leaf hoppers and aphids, Profenophos @2 ml in 1 lit of water to 55-60 days old crop against sucking pests and PBW (ovicidal effect) and Lamda Cyalothrin @ 1 ml in 1 litre of water was advised to the 60-65 days old crop. First and second foliar spray of 1% 19: 19: 19 (10 grams in 1 lit of water ) + 1% MgSO<sub>4</sub> (10 grams in 1 lit of water ) is recommended for 55-60 days old crop and also for 75-80 days old crop. Third foliar spray of 1% 19: 19: 19 (10 grams in 1 litre of water) + 1% MgSO<sub>4</sub> (10 grams in 1 litre of water) is recommended for 95-100 days old crop. Micronutrient spray for @ 4 ml in 1 lit of water is recommended where deficiency is noticed. In some farmer's fields, boll drop was noticed. They are advised to take up NAA (Planofix) spray @ 0.25 ml in 1 lit of water. Foliar spray of 1% KNO<sub>3</sub> is recommended for the crop that has entered into boll development stage. Mealy bugs were noticed in some fields. So, farmers are advised to take up Buprofezin spray @ 1 ml/lit of water...

At Chamarajanagar, as the crop is in good condition there is no need for any intervention..

TAMIL NADU

Perambalur						4	2	5	15	35	<p>At Coimbatore and neighbouring cotton growing districts, winter irrigated late sown cotton is 35 days old at vegetative stage. Sowing, irrigation and hand weeding are in progress. Weeds like <i>Cyperus rotundus</i>, <i>Parthenium spp.</i>, and <i>Cynodon dactylon</i> have infested the fields. Aphids, leafhopper, thrips and whiteflies were noticed in farmers' field. <i>Alternaria</i> leaf blight diseases incidence was recorded.</p> <p>At Srivilliputhur, the sown crop is 25 to 42 days old at vegetative to square formation stage. Sowing has been completed in most parts of the area. Thinning and weeding is in progress. <i>Trianthema portulacatrum</i>, <i>Cyperus spp</i> and <i>Cynadon dactylon</i> etc. are the major weeds that have infested the fields. Incidence of leafhoppers, thrips, aphids and whitefly noticed in the fields. No incidence of diseases..</p> <p><b>Advisory:</b> At Coimbatore and neighbouring Masagoundenchettipalayam cotton growing areas including Senthapalayam, Panaiyampalayam, Kovilpalayam, Kurumbapalayam and Kondaiyampalayam areas, leafhoppers, thrips, aphids, and whiteflies population were found above ETL. So farmers are advised to spray Thiamethoxam 25 % WG 200g/ha. Spray Hitweed 65g a.i./ha as hand-operated sprayer with a deflecting or fan type nozzle in both irrigated and rainfed conditions Take up foliar spray with Difenaconazole @ 0.05% or Krexoxym methyl @ 0.1% or Tebuconazole @ 1 ml/l or trifloxystrobin + Tebuconazole @ 0.6 g/l or Propiconazole @ 1 ml/l or Metiram 55% +Ppyraclostrobin 5% WG @ 0.1% or <i>Bacillus subtilis</i> (BSC5) @ 0.5% at 15 days interval to control <i>Alternaria</i> leaf blight in cotton.</p> <p>At Srivilliputhur, farmers are advised to do second thinning by leaving one healthy plant for maintaining optimum population. Continue giving irrigation may be stopped as less rainfall is expected in coming days. Take up first top dressing of Nitrogen application @ 20, 40 and 13 kg / kg for cotton varieties, hybrids and rainfed conditions, respectively. To monitor and manage sucking pests, spray Imidacloprid 0.5ml/lit. Place yellow sticky trap at 12 no./ ha to monitor whiteflies..</p>
Salem	0	0	0	31	0	4	6	10	35	60	
Trichy						0	8	10	25	35	
Virudhunagar						0	4	15	25	15	

Rainfall (mm)

Legend colour

<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://agromet.imd.gov.in/index.php/download/download\\_state\\_wise](http://agromet.imd.gov.in/index.php/download/download_state_wise)