

ICAR-Central Institute for Cotton Research, Nagpur
Third Weekly Advisory for Cotton Cultivation from 8th to 14th June '2021

Date	ACTUAL RAINFALL in mm IMD					PREDICTED RAINFALL in mm IMD					ADVISORY
	JUNE					JUNE					
	04	05	06	07	08	10	11	12	13	14	
PUNJAB											
Ferozpur						0	0	3	3	2	<p>At Faridkot, the crop is 21 to 35 days old at four to six leaf stage. First irrigation has been given to timely sown cotton. Tractor operated operations were done in timely sown cotton. At few isolated places, weeds like <i>Trianthema</i> spp. (Itsit), <i>Digera</i> spp. (tandla) emerged after application of first irrigation. Pendimethalin 30 EC applied as post-emergence after first irrigation. Alternatively, manual or tractor operated intercultural operation done to control such weeds.</p> <p>At Bathinda, the crop is 17 to 37 days old at vegetative stage. Gap filling was taken up. Cotton field was infested with weed like <i>Cyperus</i> sp. No incidence of any insect pest or disease recorded.</p> <p>Advisory: At Faridkot, farmers should give first irrigation 4 to 6 weeks after sowing depending upon soil type. Thinning and gap filling should be done after irrigation. Farmers are advised to apply recommended dose of N fertilizers only after application of first irrigation for maximum fertilizer use efficiency. Avoid application of N through broadcasting just before irrigation as this leads to leaching of fertilizers and contamination of groundwater.</p> <p>At Bathinda, farmers are advised to remove weeds near and around the cotton fields.</p>
Faridkot	0	0	0	0	0	0	0	3	3	1	
Muktsar						0	0	3	0	0	
Bhatinda	0	0	0	0	0	0	0	3	3	2	
Sangrur						0	0	2	7	15	
Ludhiana	12	2	0	0	0	0	0	6	8	27	
HARYANA											
Hisar	0	0	0	0	0	0	0	0	4	6	<p>At Sirsa, the crop is 40 to 45 days old at seedling and vegetative stage. Weeding done and first irrigation was given during the reporting period. Thrips incidence (0-2/3leaves) and whitefly (0-3/3leaves) was reported at few locations but very less and below ETL.</p> <p>At Hisar, the crop is 0 to 40 days old at germination and vegetative stage. Sowing, gap filling, thinning and hoeing are being taken up. Weeds like, motha and santhi have infested the fields. Farmers were advised to do mechanical hoeing where crop is more than 3 to 4 weeks old. The initial populations of thrips, whitefly and leafhoppers have started appearing but below ETL. Root rot was observed in few fields. Farmers were advised to drench the roots with Carbendazim 50 WP @ 2g/lit of water.</p>
Jind						0	0	1	5	16	
Sirsa						0	0	0	0	2	
Rohtak	0	1	1	0	0	0	0	0	2	10	

											<p>Advisory: At Sirsa, farmers are advised to monitor the crop for insect pests and disease regularly. Since the incidence of sucking pests is below ETL, do not spray the crop at this stage for any pests. Apply first irrigation wherever the crop has attained the age of 4-6 weeks depending upon rainfall and soil type. Apply 30 to 45kg urea/acre in <i>Bt</i> and <i>Non-Bt</i> cotton hybrids as first top dressing. In case of varieties apply 20-30 kg/acre. Keep field boundaries/water channels/roadside free from weeds to check the initiation of insect incidence. Hand weeding with Kasola /wheel hoe or tractor mounted cultivator or rotary weeder/trifali to control weeds.</p> <p>At Hisar, farmers are advised to take up hoeing wherever weeds have infested the fields. First irrigation is to be applied to the crop that is 6-7 weeks old. Thinning of cotton is required to be done after rains/irrigation. In root rot affected patches, drenching with Carbendazim 50 WP@ 2 g/lit water is suggested. The population of sucking pests is below ETL and therefore, there is no need to spray chemical insecticides.</p>
RAJASTHAN											
Ajmer	0	0	1	1	0	0	0	0	0	3	<p>At Sriganganagar, the crop is 0 to 50 days old at vegetative stage and sowing is going on. Weeds like <i>Istia</i> (<i>Trianthema</i> spp.), <i>Tandla</i> (<i>Digera arvensis</i>) <i>Motha</i> (<i>Cyperus rotundus</i>) have infested the crop. Jassids and whitefly incidence noticed below ETL and thrips observed ranging from 2.33-6.17/ 3 leaves. Weeds were removed manually or by weedicide spray.</p> <p>In southern Rajasthan (Banswara and surrounding districts), the crop will be sown after onset of monsoon.</p> <p>Advisory: At Sriganganagar, farmers are advised to spray neem-based insecticides @5ml/lit. of water for initial infestation of sucking pests when crop attains 50-60 days age.</p> <p>In southern Rajasthan (Banswara, Bhilwara, Chittorgarh, Dunarpur, Pratapgarh, Rajsamand and Udaipur etc) farmers are advised to take up deep summer ploughing to expose and kill the pupae hidden and dormant larvae in the soil. Looking to lockdown due to corona virus epidemic, use face mask, proper social and physical distancing should be followed to avoid unnecessary crowd during purchasing of seed and other inputs from market. Select sucking pest and disease tolerant, short duration and early maturing varieties/hybrids of cotton, which fit in cotton -wheat rotation. Those farmers having own irrigation facilities can start sowing of cotton.</p>
Jodhpur	0	0	1	0	0	0	0	0	0	0	
Nagaur						0	0	0	0	3	
Pali	0	0	5	0	0	0	0	0	0	2	
Sri Ganganagar	0	0	0	0	0	0	0	0	0	3	
ODISHA											
Koraput	10	3	1	0	0	32	41	59	153	73	At Odisha, sowing of cotton not yet started and it will start after onset of monsoon (15 th of

Kalahandi	1	0	0	0	4	19	23	171	118	44	June). Cleaning of land, summer ploughing and removal of old cotton plants and weeds from the field are being taken up. No incidence of pests or diseases Advisory: Farmers are advised to clean their land and go for summer ploughing when there is rain. Deep ploughing using MB plough for controlling weeds and more rain water penetration should be done. Arrange seeds, fertilizers, FYM and seeds for green manuring crop well in advance. Procure cotton hybrids with good fibre quality and yield. Seeds of border crops like maize and cowpea and trap crops like castor and marigold should be arranged in advance.
Balangir	0	0	13	18	23	7	11	171	73	38	
GUJARAT											
Amreli	0	0	7	0	0	16	25	21	16	30	At Surat, sowing is yet to be taken up. Furrows have been formed.
Bhavnagar	0	36	0	0	0	48	17	44	24	14	
Jamnagar	0	0	0	0	0	2	5	5	2	2	At Junagadh, sowing is yet to be taken up.
Rajkot	0	1	2	22	0	2	2	5	2	1	
Junagadh	0	0	0	0	0	16	14	15	6	19	Advisory: Farmers are advised to apply FYM @10 ton/ha and basal dose of fertilizers @ 20kg Phosphorus and 75 kg Potassium per ha for irrigated cotton. Purchase seed with original bills. Early sowing must be avoided
Sabarkantha						0	1	1	0	0	
Surendranagar	0	0	4	0	0	1	1	2	0	0	
Ahmedabad	0	4	0	0	0	5	3	8	2	0	
Baroda	0	15	0	0	0	6	4	6	1	1	
Patan						0	1	0	0	0	
Mehesana						0	1	1	0	0	
MP											
Khargaoon						2	2	0	8	111	At Khandwa, the crop is 22 to 29 days old at vegetative stage. The weather was cloudy and Warm/ Humid during the reporting period. Applied irrigation whenever required by drip or sprinkler methods. Weeds like <i>Cynodon dactylon</i> , <i>Cyperus rotundus</i> , etc have infested the fields. No pests or diseases noticed in the cotton fields. Advisory: Farmers are advised to take up intercultural operations as per requirement.
Dhar	1	1	16	1	0	0	1	0	0	4	
Khandwa											
MAHARASHTRA											
Dhule						4	3	2	2	0	At Akola, land preparation for coming <i>kharif</i> season is in progress. All the operation like harrowing, levelling, FYM application is going on. As flush of weeds come out due to pre-monsoon rains, harrowing is taken up to control the weeds. Stale Seed Bed is being prepared for weed control.
Nandurbar						6	8	4	5	1	
Jalgaon	0	3	0	0	0	1	10	5	8	36	At Rahuri, sowing of cotton has been initiated by some of the farmers where irrigation facilities are available. Pre-sowing operations like land preparation is going on. Advisory:
Ahmednagar	0	1	20	0	0	32	10	19	31	48	
Aurangabad	0	1	1	50	11	1	9	5	8	8	
Jalna	0	0	13	16	0	3	40	5	26	123	
Beed	0	0	5	0	0	13	16	8	24	123	
Nanded	0	0	0	0	0	74	17	12	56	24	
Parbhani	0	6	1	12	0	13	40	8	51	123	

Hingoli						7	10	3	56	106	At Akola, farmers are advised to avoid cultivation of Bt cotton on light soils. Use short to medium duration Bt /non bt varieties/hybrids for rainfed sowing and mid-late to late varieties for irrigated condition. Start cotton sowing after receipt of sufficient rainfall of 75-100 mm. Treat the cotton seed with Carboxin 75% WP @ 1.5 gm/Kg seed or Thirum 75% WS @3 gm/ Kg of seed or Tetraconazole 11.6% w/w (12.5% w/v) SL 1.5 ml/Kg seed or <i>Trichoderma harzianum</i> / <i>T. viride</i> @ 4.0 g/kg of seed before sowing cotton. Also give seed treatment of <i>Azotobacter</i> for Nitrogen fixation and PSB @20-25 gm /kg seed for phosphate solubilization. Include the intercrops like green gram and blackgram in cotton in 1:1 row proportion. Use Pendimethalin 38.7 % CS (20-25 ml per lit of water) as a pre-emergence weedicide for control of weeds in early stage of crop. Follow recommended spacing and fertilizer doses for <i>arboreum</i> (60x15,60x30cm,40:20:20KgNPK/ha), Improved <i>hirsutum</i> (60x30cm,60:30:30 Kg NPK/ha), rainfed Bt hybrid cotton (90x45,90x60, 60:30:30Kg NPK/ha) and irrigated Bt Cotton(120x30,120x60 cm,120:60:60 Kg NPK/ha).
Buldhana	0	0	2	0	2	4	38	5	40	47	
Akola	1	0	0	32	0	47	5	3	28	70	
Washim	0	0	10	0	0	12	10	2	56	42	
Amravati	1	2	1	3	0	179	79	8	17	152	
Yavatmal						70	23	15	115	74	
Wardha	1	1	0	0	3	60	13	12	30	60	
Nagpur	0	0	0	0	1	88	43	47	22	45	
Chandrapur	0	8	0	0	0	75	21	20	208	110	
TELANGANA											
Adilabad	0	17	0	4	0	56	29	19	56	67	Land preparation was in progress. Sowing was yet to be taken up. Advisory: At Guntur, farmers are advised to take up deep summer ploughing to destroy the larvae of pink bollworm in soil and plant debris. Non-Btcotton seed (refuge)if supplied separately should to be planted along with Bollgard II cotton as this delays the development of resistance in bollworms to Bt crops and is important for the sustenance of benefits from the Bt cotton technology. Grow early to medium duration maturing varieties/ hybrids so that the cotton bolls mature before the heavy build up of pink bollworm. Avoid staggered sowings and take up timely sowings.
Warangal	4	12	0	0	7	23	32	23	34	83	
Khammam	12	0	0	0	0	19	22	23	38	137	
Karimnagar	1	1	0	0	0	23	29	15	68	83	
Mahabubnagar	0	0	0	8	0	8	13	19	30	16	
AP											
Guntur	0	0	0	0	0	7	8	13	17	63	
Prakasam	0	0	0	0	0	16	15	13	39	24	
KARNATAKA											At Chamarajanagar, the crop is 25 to 30 days old at vegetative stage. Intercultural operation was going on. Incidence of aphids (15-20/3leaves) and Leafhoppers 3-4/3leaves noticed in the fields. Installation of Yellow sticky traps was done. Sprayed Neem oil @ 2-3ml /l of water / Imidacloprid @0.5ml/l of Water. Advisory: Farmers are advised to install yellow sticky traps. Spray Neem oil @ 5ml /l of water to control the sucking pests.
Dharwad	0	0	0	0	0	12	6	5	32	12	
Haveri	0	0	0	0	0	9	5	6	26	15	
Mysore	56	0	8	0	0	10	11	1	13	23	
TAMIL NADU											
Perambalur	0	0	0	0	0	0	3	0	4	3	In and around cotton growing areas of Coimbatore and surrounding districts, rainfed sowing has initiated and was in slow progress due to Covid situation and for want of rains. Waitingfor the arrival of southwest monsoon rains for taking up sowingof cotton. Advisory: Farmers are advised to follow proper spacing to maintain optimum plant population. Sow
Salem	12	4	10	0	1	9	12	0	8	9	
Trichy						4	10	0	9	6	
Virudhunagar						7	0	0	3	5	

the seeds at optimum depth (3-5 cm) with 1-2 seeds per hill. Spray pre emergence weedicides within 3 days from sowing based on moisture availability. Go for summer ploughing in the field and also during last summer plough, incorporate biocontrol agent *Trichoderma asperellum* 2.5kg/ha into the soil to manage soil borne diseases in cotton.

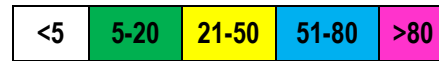
Post-season and pre-sowing package of practices

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 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 help to reduce the inoculum 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 spread 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. 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.
6. 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 help to escape pink bollworm infestation in late season.
7. In central india Sowing of cotton crop should be done in the month of June, 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.
8. In view of lockdown due to corona virus epidemic, proper social and physical distancing should be followed to avoid unnecessary crowd during purchasing of seeds and other inputs at agro-input shops.
9. 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 apart 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 farmers 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.

Rainfall (mm) Legend colour



0.0 mm rainfall (no rainfall)

Blank space express data not available.

Source: http://agromet.imd.gov.in/index.php/download/download_state_wise