

PEST SITUATION ON COTTON CROP IN PUNJAB DURING 4TH WEEK OF AUGUST, 2020

Pest Situation of Cotton Pests								
Sr. No.	Pest Name	%age of spots						Remarks
		Current Week		Previous week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	Whitefly	31.80	67.71	32.50	66.21	15.17	82.18	High & Sustaining
2	Jassid	10.66	84.88	11.91	83.39	9.41	84.02	High & Sustaining
3	Thrips	10.41	86.83	14.73	82.86	6.03	86.64	High & Sustaining
4	Mealy Bug	19.41	-	16.75	-	16.44	-	High & Increasing
5	Mites	-	3.40	-	3.59	-	0.35	Low
6	Dusky Cotton Bug	0.07	19.09	0.10	17.80	0.00	12.71	Low
7	Pink Bollworm	1.77	19.55	1.57	16.75	2.53	17.59	Sustaining
8	American Bollworm	-	0.35	-	0.73	-	0.19	Low
9	Spotted Bollworm	0.07	0.42	0.00	0.59	0.04	0.46	Low
10	Armyworm	2.66	-	3.10	-	1.88	-	Sustaining
11	CLCuV	13.46	-	9.51	-	17.43	-	High & Increasing

Tehsil wise percentage of hot spots of Whitefly

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	JATOI	63.8	33	JAHANIAN	27.3
2	A.P.EAST	53.2	34	MIAN CHANNU	27.3
3	MULTAN	53.1	35	BHAKKAR	27.3
4	TAUNSA	50.0	36	KOT ADDU	26.4
5	MANKERA	50.0	37	SAHIWAL	25.0
6	SHUJABAD	48.5	38	KAROR L.E.	25.0
7	RAJAN PUR	48.3	39	MINCHAN ABAD	24.4
8	HASILPUR	48.3	40	BURE WALA	24.1
9	KOT CHUTTA	48.2	41	HARON ABAD	23.9
10	JALAL PUR P.W	47.5	42	PIPLAN	23.3
11	JAM PUR	47.1	43	KALLOR KOT	22.2
12	KEHROR PACCA	46.3	44	DARYA KHAN	21.4
13	D.G.KHAN	46.3	45	PIR MAHAL	20.0
14	KHAN PUR	42.6	46	MIANWALI	20.0
15	BAHAWAL PUR	39.7	47	CHOBARA	18.0
16	LODHRAN	38.4	48	MAILSI	16.7
17	SADIQ ABAD	38.2	49	SUMUNDRI	15.8
18	R.Y.KHAN	37.7	50	JHANG	15.4
19	DUYAPUR	37.3	51	ARIF WALA	14.6
20	KABIR WALA	36.6	52	GOJRA	14.3
21	KHANEWAL	35.6	53	18-HAZARI	13.8
22	MUZUFAR GARH	34.0	54	A.P SIAL	13.6
23	YAZMAN	34.0	55	LAYYAH	13.3
24	ALI PUR	34.0	56	ISA KHEL	13.3
25	CHISHTIAN	32.0	57	DEPALPUR	12.5
26	ROJHAN	31.8	58	T.T.SINGH	12.2
27	LIAQUAT PUR	31.4	59	TANDLIANWALA	12.1
28	BAHAWAL NAGAR	30.8	60	OKARA	11.6
29	VEHARI	30.0	61	PAK PATTAN	10.9
30	SHORKOT	29.2	62	RENALA KHURD	9.5
31	CHICHA WATNI	28.1	63	JARANWALA	8.3
32	FORT ABBAS	27.7			

Tehsil wise percentage of hot spots of Jassid

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	KOT CHUTTA	37.5	31	ARIF WALA	9.8
2	D.G.KHAN	31.5	32	A.P SIAL	9.1
3	MANKERA	30.0	33	FAISALABAD	9.1
4	YAZMAN	24.0	34	TAUNSA	8.3
5	CHISHTIAN	24.0	35	JARANWALA	8.3
6	KEHROR PACCA	22.2	36	R.Y.KHAN	8.2
7	BAHAWAL NAGAR	21.2	37	KHAN PUR	8.2
8	BAHAWAL PUR	20.7	38	VEHARI	8.0
9	HASILPUR	20.7	39	CHOBARA	8.0
10	BHAKKAR	18.2	40	KOT ADDU	7.5
11	DEPALPUR	16.7	41	SADIQ ABAD	7.3
12	SHORKOT	16.7	42	RENALA KHURD	7.1
13	KALLOR KOT	16.7	43	18-HAZARI	6.9
14	LODHRAN	16.4	44	MIAN CHANNU	6.8
15	FORT ABBAS	14.9	45	DUYAPUR	6.8
16	A.P.EAST	14.5	46	KHANEWAL	6.7
17	DARYA KHAN	14.3	47	T.T.SINGH	6.1
18	MINCHAN ABAD	13.3	48	TANDLIANWALA	6.1
19	LAYYAH	13.3	49	BURE WALA	5.6
20	MIANWALI	13.3	50	MULTAN	4.7
21	PIPLAN	13.3	51	JAHANIAN	4.5
22	ISA KHEL	13.3	52	PAK PATTAN	4.3
23	HARROON ABAD	13.0	53	JATOI	4.3
24	ALI PUR	12.0	54	RAJAN PUR	3.3
25	LIAQUAT PUR	11.8	55	PIR MAHAL	3.3
26	KAROR L.E.	11.8	56	SHUJABAD	2.9
27	OKARA	11.6	57	GOJRA	2.9
28	JHANG	11.5	58	KABIR WALA	2.4
29	SAHIWAL	10.9	59	CHICHA WATNI	1.8
30	SUMUNDRI	10.5			

Tehsil wise percentage of hot spots of Thrips

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	TAUNSA	35.0	25	LODHRAN	11.0
2	KOT CHUTTA	32.1	26	CHISHTIAN	10.0
3	BAHAWAL PUR	31.0	27	LAYYAH	10.0
4	R.Y.KHAN	26.2	28	ROJHAN	9.1
5	YAZMAN	26.0	29	BHAKKAR	9.1
6	D.G.KHAN	25.9	30	RAJAN PUR	8.3
7	LIAQUAT PUR	25.5	31	JHANG	7.7
8	KHAN PUR	24.6	32	JALAL PUR P.W	7.5
9	A.P.EAST	22.6	33	JAM PUR	5.7
10	MANKERA	20.0	34	KALLOR KOT	5.6
11	FORT ABBAS	19.1	35	DUYAPUR	5.1
12	MULTAN	17.2	36	A.P SIAL	4.5
13	JATOI	17.0	37	MUZUFAR GARH	4.3
14	ALI PUR	16.0	38	SHORKOT	4.2
15	MINCHAN ABAD	13.3	39	CHOBARA	4.0
16	MIANWALI	13.3	40	KOT ADDU	3.8
17	PIPLAN	13.3	41	HASILPUR	3.4
18	ISA KHEL	13.3	42	KABIR WALA	2.4
19	HARROON ABAD	13.0	43	JAHANIAN	2.3
20	KEHROR PACCA	13.0	44	MIAN CHANNU	2.3
21	SADIQ ABAD	12.7	45	KHANEWAL	2.2
22	SHUJABAD	11.8	46	VEHARI	2.0
23	KAROR L.E.	11.8	47	BURE WALA	1.9
24	BAHAWAL NAGAR	11.5			

Tehsil wise percentage of hot spots of Mealy bug

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	JATOI	72.3	28	VEHARI	16.0
2	YAZMAN	44.0	29	MAILSI	15.0
3	DUYAPUR	42.4	30	GOJRA	14.3
4	KABIR WALA	41.5	31	HARROON ABAD	13.0
5	HASILPUR	41.4	32	KOT CHUTTA	12.5
6	R.Y.KHAN	41.0	33	BAHAWAL NAGAR	11.5
7	SHUJABAD	36.8	34	CHICHA WATNI	10.5
8	LIAQUAT PUR	35.3	35	RENALA KHURD	9.5
9	KHAN PUR	34.4	36	BURE WALA	9.3
10	CHISHTIAN	34.0	37	DEPALPUR	8.3
11	MULTAN	32.8	38	TAUNSA	8.3
12	ALI PUR	32.0	39	DARYA KHAN	7.1
13	LODHRAN	31.5	40	OKARA	7.0
14	PIR MAHAL	30.0	41	RAJAN PUR	6.7
15	JAHANIAN	29.5	42	KALLOR KOT	5.6
16	SADIQ ABAD	29.1	43	SUMUNDRI	5.3
17	A.P.EAST	29.0	44	MINCHAN ABAD	4.4
18	BAHAWAL PUR	27.6	45	KAROR L.E.	4.4
19	MIAN CHANNU	27.3	46	PAK PATTAN	4.3
20	KHANEWAL	26.7	47	JHANG	3.8
21	KOT ADDU	26.4	48	18-HAZARI	3.4
22	JALAL PUR P.W	22.5	49	SAHIWAL	3.1
23	KEHROR PACCA	22.2	50	TANDLIANWALA	3.0
24	MUZUFAR GARH	21.3	51	ARIF WALA	2.4
25	D.G.KHAN	20.4	52	FORT ABBAS	2.1
26	JAM PUR	17.1	53	CHOBARA	2.0
27	T.T.SINGH	16.3			

No Hot Spots of Mites in any Tehsil

Tehsil wise percentage of hot spots of Dusky Cotton Bug

Sr#	TEHSIL	%AGE
1	HASILPUR	3.4

Tehsil wise percentage of hot spots of Army worm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	KHANEWAL	20.0	17	VEHARI	4.0
2	JHANG	7.7	18	CHISHTIAN	4.0
3	KEHROR PACCA	7.4	19	D.G.KHAN	3.7
4	LODHRAN	6.8	20	KOT CHUTTA	3.6
5	DUYAPUR	6.8	21	HASILPUR	3.4
6	PIPLAN	6.7	22	TAUNSA	3.3
7	ISA KHEL	6.7	23	MIANWALI	3.3
8	A.P.EAST	6.5	24	KALLOR KOT	2.6
9	JATOI	6.4	25	KABIR WALA	2.4
10	ALI PUR	6.0	26	OKARA	2.3
11	BAHAWAL PUR	5.2	27	MIAN CHANNU	2.3
12	JALAL PUR P.W	5.0	28	MUZUFAR GARH	2.1
13	R.Y.KHAN	4.9	29	LIAQUAT PUR	2.0
14	MULTAN	4.7	30	KOT ADDU	1.9
15	JAHANIAN	4.5	31	BURE WALA	1.9
16	KAROR L.E.	4.4	32	MAILSI	1.7

Tehsil wise percentage of hot spots of Pink Bollworm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	MIAN CHANNU	11.4	11	BURE WALA	3.7
2	ALI PUR	10.0	12	LODHRAN	2.7
3	PIR MAHAL	10.0	13	KABIR WALA	2.4
4	SAHIWAL	9.4	14	OKARA	2.3
5	DUYAPUR	8.5	15	JAHANIAN	2.3
6	KEHROR PACCA	7.4	16	KHANEWAL	2.2
7	CHICHA WATNI	5.3	17	YAZMAN	2.0
8	KAROR L.E.	4.4	18	BAHAWAL PUR	1.7
9	PAK PATTAN	4.3	19	HASILPUR	1.7
10	CHOBARA	4.0	20	SHUJABAD	1.5

No Hot Spots of American Bollworm in any Tehsil

Tehsil wise percentage of hot spots of Spotted Bollworm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	KHANPUR	1.6	2	JAMPUR	1.4

Tehsil wise percentage of hot spots of CLCuV

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	Sr#
1	JATOI	76.6	19	D.G.KHAN	16.7
2	VEHARI	64.0	20	BAHAWAL PUR	15.5
3	MAILSI	48.3	21	HASILPUR	13.8
4	SHUJABAD	41.2	22	KEHROR PACCA	9.3
5	SADIQ ABAD	36.4	23	KAROR L.E.	8.8
6	MULTAN	31.3	24	TAUNSA	8.3
7	ALI PUR	30.0	25	LODHRAN	6.8
8	MUZUFAR GARH	29.8	26	KABIR WALA	4.9
9	BURE WALA	29.6	27	ARIF WALA	4.9
10	R.Y.KHAN	29.5	28	JAHANIAN	4.5
11	KHAN PUR	29.5	29	KHANEWAL	4.4
12	LIAQUAT PUR	29.4	30	YAZMAN	4.0
13	JALAL PUR P.W	25.0	31	CHOBARA	4.0
14	KOT ADDU	20.8	32	JHANG	3.8
15	MANKERA	20.0	33	MIAN CHANNU	2.3
16	A.P.EAST	19.4	34	T.T.SINGH	2.0
17	KOT CHUTTA	17.9	35	CHICHA WATNI	1.8
18	DUYAPUR	16.9	36	LAYYAH	1.7

FORECAST FOR THE NEXT WEEK

Meteorological data of the current week 2019-2020

Districts	2020				2019			
	Temperature °C		R.H%	Rainfall (mm)	Temperature °C		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	34.71	29.57	82.07	6.20	36.33	27.83	69.30	25.00
Khanewal	36.29	27.43	68.00	2.00	38.29	27.71	64.29	0.00
Vehari	37.29	27.43	73.64	8.00	36.71	27.57	66.86	6.00
Lodhran	35.86	28.43	75.79	4.00	38.14	28.57	63.00	0.00
Sahiwal	36.00	27.00	72.00	23.00	37.00	28.00	68.00	0.00
Pakpattan	33.33	26.50	54.67	26.00	36.17	28.17	50.67	0.00
Okara	37.90	27.01	74.33	25.00	36.26	27.33	74.50	0.00
Bahawalpur	37.14	28.67	60.64	1.70	38.44	27.67	59.79	0.00
Bahawalnagar	36.83	25.42	68.42	3.90	38.33	26.83	55.67	0.00
R.Y.Khan	35.00	28.00	43.43	4.10	40.29	27.86	77.71	0.00
D.G. Khan	38.00	30.14	71.14	5.00	39.71	29.29	62.50	0.00
Muzaffar Garh	35.37	27.56	58.71	4.00	35.69	28.69	59.14	0.00
Rajapur	44.6	32.2	62.20	2.60	41.50	29.94	65.30	0.00
Layyah	35.57	26.71	42.00	9.00	37.14	26.42	53.14	9.00
TOT/AVG	36.71	28.00	64.79	124.50	37.86	27.99	63.56	40.00

Weather forecast for next 7 day in cotton zone

Division	Dated	28/8	29/8	30/8	31/8	1/9	2/9	3/9
Multan	Max.Temp.	33	37	38	38	33	40	32
	Min.Temp.	28	28	28	29	27	29	24
	Humidity %	56	44	40	41	55	39	42
Sahiwal	Max.Temp.	33	36	37	37	35	39	29
	Min.Temp.	27	26	28	28	28	29	21
	Humidity %	58	47	41	43	51	43	82
Bahawalpur	Max.Temp.	35	35	37	37	33	39	32
	Min.Temp.	28	28	28	29	28	29	25
	Humidity %	53	51	42	48	58	42	44
D.G. Khan	Max.Temp.	35	37	39	39	35	40	34
	Min.Temp.	28	29	29	28	28	30	23
	Humidity %	52	44	39	36	48	36	38
Average Cotton Region	Max.Temp.	35.86						
	Min.Temp.	27.50						
	Humidity %	46.89						

Source: timeanddate.com

Summary of weather forecast

Overall weather for seven days in cotton zone during next week will remain hot and humid.

Pest Forecast for Next 15 days

Avg. Temperature for next 15 days = 29.05°C

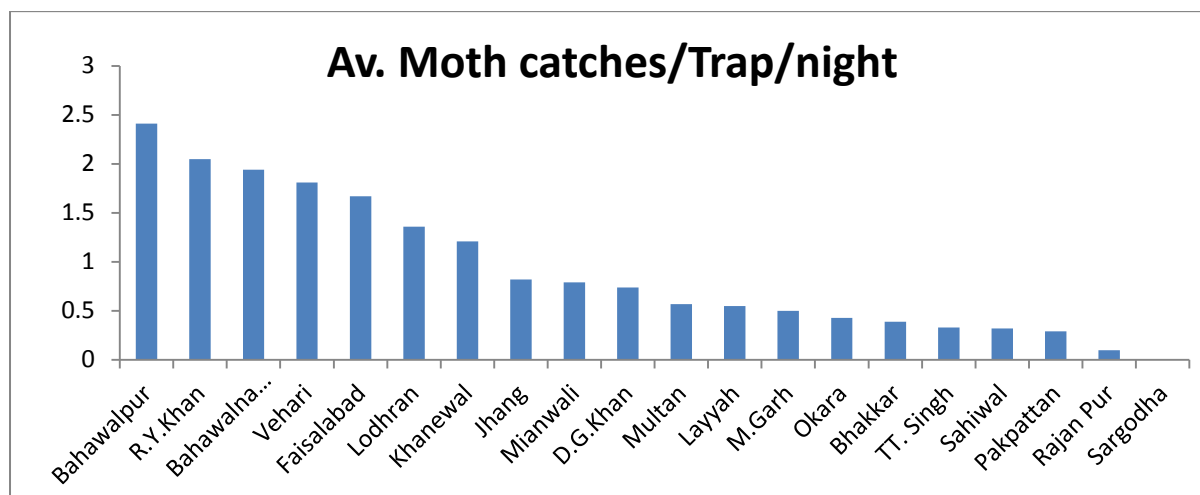
Avg. Relative Humidity for next 15 days= 40.2%

Sr. No.	Pest Name	Opt. Temperature	Relative Humidity	Pest Prediction
1	Whitefly	35-42 °C	<50%	May Sustain
2	Jassid	35-40 °C	>70%	May Sustain
3	Thrips	35-40 °C	<60%	May Sustain
4	Mealy Bug	35-40 °C	<60-80%	May Increase
5	Mites	28-40 °C	<40-50%	Low
6	Dusky Cotton Bug	28-40 °C	<50-80%	Low
7	Pink Bollworm	32-40 °C	<60-80%	May sustain
8	American Bollworm	32-40 °C	<50-70%	Low
9	Spotted Bollworm	30-40 °C	<60-100%	Low
10	Armyworm	30-40 °C	>70-100%	May Sustain
11	CLCuV	-	-	May Increase

Forecast of Sucking Pests:

Moth Catches in Pheromone Traps during 4th Week of August, 2020

Moth Catches in Pheromone Traps During 4 th Week of August, 2020			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	24	0.57
Khanewal	8	68	1.21
Vehari	6	76	1.81
Lodhran	6	57	1.36
Sahiwal	4	9	0.32
Pakpattan	4	8	0.29
Okara	4	12	0.43
Bahawalpur	8	135	2.41
Bahawalnagar	10	136	1.94
R.Y.Khan	8	115	2.05
D.G.Khan	4	31	0.74
M.Garh	8	28	0.50
Rajan Pur	6	4	0.10
Layyah	6	23	0.55
Sargodha	2	0	0.00
Mianwali	4	22	0.79
Bhakkar	8	22	0.39
Faisalabad	6	70	1.67
TT. Singh	6	14	0.33
Jhang	4	46	0.82
<i>Note. 3 moth catches on 3 consecutive nights in a trap is considered as ETL</i>			



Moth catches on light traps during 4th Week of August, 2020

Moth Catches on Light Traps/Trap/week During 4 th Week of August, 2020				
District	Traps Installed	A.B.W	S.B.W	Armyworm
Multan	3	0	0	9
Khanewal	4	0	0	35
Vehari	3	0	0	18
Lodhran	3	1	0	22
Sahiwal	2	3	0	9
Pakpattan	2	3	0	10
Okara	3	5	0	8
Bahawalpur	4	5	2	7
Bahawalnagar	5	7	5	10
R.Y.Khan	4	5	4	7
D.G.Khan	3	7	5	6
M.Garh	4	4	4	7
Rajan Pur	3	6	0	0
Layyah	3	10	0	3

Note. 3 moth catches of a pest on 3 consecutive nights in a trap is considered as ETL

RECOMMENDATIONS

WHITEFLY MANAGEMENT

1. Conduct regular pest scouting of Whitefly.
2. Control the pest without delay when population reaches ETL i.e. nymphs or adults or both 5 per leaf.
3. Control weeds in and outside the field especially near water channels and fallow lands.
4. Apply among the following recommended insecticide at ETL and repeat the spray with alternate insecticides if required;

Sr.No.	CHEMICAL NAME	DOSE (Per Acre)
1	Spirotetramate	125 ml
2	Pyriproxifen 10.8 EC	500 ml
3	Buprofezin	600 gm
4	Flunicamid 50 WG	60-80 gm
5	Diafenthuron	200 ml

Alternate host plants of whitefly

Crops	Vegetables	Orchards	Weeds/ Ornamentals	Trees
Sunflower	Okra	Citrus	Gardenia	Shisham
Tobacco	Brinjal	Litchi	Mako	Shareen
	Cucurbits	Pomegranate	Maina	
	Tomato	Ber (<i>Zizyphus</i>)	Karund	
	Cabbage	Guava	Lehli	
	Cauliflower	Mulberry		
	Peas	Papaya		
	Potato			
	Onion			
	Spinach			

JASSID MANAGEMENT

1. Eradicate weeds.
2. Conduct Pest Scouting at least twice a week.
3. Use *Chrysoperla* Cards @ 80-90 cards per acre having 20-25 eggs/card
4. Apply among the following recommended insecticide at ETL and repeat the spray with alternate insecticides if required;

Sr.No.	CHEMICAL NAME	DOSE (Per Acre)
1	Flunicamid 50 WG	60 gm
2	Fipronil+Imidacloprid	60 gm
3	Nitenpiram 10 AS	200 ml
4	Dinotefuron 20 SG	100 gm
5	Dimethoate 40 EC	330-400 ml
6	Thiacloprid 480 SC	200 ml

THRIPS MANAGEMENT

1. Conduct Pest Scouting regularly at least twice a week.
2. Avoid intercropping of cotton crop with vegetables.
3. Control weeds in and outside the field.
4. Apply among the following recommended insecticide at ETL and repeat the spray with alternate insecticides if required;

Sr.No.	CHEMICAL NAME	DOSE (Per Acre)
1	Fipronil+Imidacloprid	60 gm
2	Chlorfenpyr	125 ml
3	Acephate 97% DF	250-300 gm

MEALY BUG MANAGEMENT

1. Visit the fields daily to detect the infestation for effective management of mealy bug well in time.
2. Keep field and water courses etc. free from weeds especially Itsit & Hazaardani.
3. To avoid its shifting from one place to another, keep the horticultural nurseries free from its infestation. Spray such infested nurseries before shifting the plants.
4. Uproot and keep the infested plants gently in plastic bags and bury in the soil outside the field.
5. Avoid water stress to the plants.
6. Avoid repeated visits of workers from infested fields to healthy fields.

Alternate host plants of cotton mealy bug

Crops	Vegetables	Ornamentals	Weeds	Orchards
Sunflower	Okra	China Rose	Hazar Dani	Citrus
Tobacco	Brinjal	Huddle	Amarantus	Mulbery
Jantar	Tomato	Cotton Rose	Bhakra	Ficus
Sesame	Chillies	Gulchain	Mako	Ber
	Pumpkin	Lantana	Sueda	
		Din Ka Raja	Itsit	
		Rat Ki Rani	Karund	
		Anthorium	Aksen	
		Gul-e-Daudi	Bathu	
		Gainda	Puth Kanda	
			Kanghi	

Management Of Pink Bollworm:

1. Use Sex Pheromone Traps for monitoring of PBW
2. Eradicate rosette flowers.
3. Apply among the following recommended insecticide at ETL and repeat the spray with alternate insecticides if required;

Sr.No.	CHEMICAL NAME	DOSE (Per Acre)
1	Spintoram 120 SC	80 ml
2	Chlorantraniliprole	50ml
3	Triazophos	1000ml
4	Bifenthrin	250ml
5	Gammacyhalothrin	100ml
6	Lambdacyhalothrin	333ml

MANAGEMENT OF DUSKY COTTON BUG

1. Eradicate weeds.
2. Conduct Pest Scouting at least twice a week.
3. Remove alternate host plants
4. Apply among the following recommended insecticide at ETL and repeat the spray with alternate insecticides if required;

Sr.No.	CHEMICAL NAME	DOSE (Per Acre)
1	Fipronil 5% SC	480 ml
2	Acetamaprid	125 gm
3	Chlorpyrifos	800-1000ml

MANAGEMENT OF ARMY WORM

1. Keep the fields clean from weeds especially Its it which is a preferred host of armyworm.
2. Avoid sowing of Jantar near cotton fields.
3. Regular pest scouting at least twice a week.
4. Hand picking and destruction of egg masses at initial stage as initially its attack starts in patches and is clearly visible.
5. Apply among the following recommended insecticide at ETL and repeat the spray with alternate insecticides if required;

Sr.No.	CHEMICAL NAME	DOSE (Per Acre)
1	Leufenuron	200ml
2	Flubendamide	50ml

CLCuV MANAGEMENT

1. Keep Cotton fields free from all kinds of weeds.
2. Eradicate other alternate host plants of CLCuV and dispose them off carefully.
3. Thinning out and destruction of Virus affected plants.
4. Remove CLCuV effected plants in less than 60 DAS (Days after sowing) crop.
5. Hoeing after each irrigation or rain at wattar condition till canopies permit.
6. Apply post emergence Glyphosate for both broad and narrow leaved weeds and Glyphosate for grassy weeds with shield and use Flat Fan Nozzle, if needed.
7. Irrigate the fields when needed keeping in view weather conditions e.g. temperature, rainfall, soil water holding capacity and plant need.
8. Balanced use of Fertilizer i.e. N.P.K.
9. Keep transmission vector (whitefly) at the low ebb

Alternate host plants of CLCuV

Crops	Vegetables	Ornamentals	Weeds
Sunflower	Okra	Gurhal	Leh
Melon	Brinjal	Chambeli	Lehli
Tobacco	Chillies		Mako
	Tomato		Maina
	Potato		Karund/Bathu
	Cucumber		Gardenia
			Hazardani
			Rattanjot
			Sun Kukra

Economic threshold levels of cotton pests

Insect pests	Economic threshold levels
Jassid	1 Adult or Nymph per leaf
Whitefly	5 Adults or Nymphs or both per Leaf
Thrips	8-10 Adults or Nymphs per Leaf
Mealy bug	on appearance
Mites	On damage appearance
Spotted Boll worm	3 Larvae/ 25 plants.
Pink Boll worm	5 Larvae /100 bolls.
American boll worm	5 brown eggs or 3 small larvae or both 5 per 25 plants on non Bt varieties. 2 larvae of 2 nd instar per 25 plants on Bt varieties.
Army worm	On appearance
Aphid	Spray on visible damage on top terminals.
Dusky Cotton bug	10 per leaf/bud