

## PEST SITUATION ON COTTON CROP IN PUNJAB DURING 4<sup>TH</sup> WEEK OF OCTOBER, 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	20.63	73.96	29.98	67.84	6.45	74.94	Decreasing
2	Jassid	2.65	63.41	4.97	72.31	1.91	65.38	Decreasing
3	Thrips	0.00	46.48	0.04	58.63	0.00	37.97	Low
4	Mealy Bug	10.16	-	14.09	-	9.24	-	Decreasing
5	Mites	0.00	0.31	0.00	0.15	0.00	0.00	Low
6	Dusky Cotton Bug	7.75	40.76	5.84	41.67	5.10	40.08	Increasing
7	Pink Bollworm	14.29	38.30	14.44	35.71	8.92	33.98	Sustaining
8	American Bollworm	0.00	0.00	0.00	0.11	0.00	0.00	Low
9	Spotted Bollworm	0.00	0.58	0.00	0.27	0.04	0.36	Low
10	Armyworm	3.04	-	4.70	-	1.16	-	Decreasing
11	CLCuV	12.96	-	16.58	-	6.89	-	Decreasing

### Tehsil wise percentage of hot spots of Whitefly

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	KOT CHUTTA	74.5	29	ALI PUR	16.0
2	D.G.KHAN	63.6	30	DUYAPUR	15.9
3	HAROON ABAD	47.7	31	KABIR WALA	15.2
4	HASILPUR	44.2	32	KOT ADDU	15.0
5	TAUNSA	43.6	33	KEHROR PACCA	14.8
6	MINCHAN ABAD	40.5	34	A.P SIAL	14.3
7	BAHAWAL NAGAR	38.0	35	CHOBARA	13.2
8	CHISHTIAN	38.0	36	MIAN CHANNU	13.2
9	JALAL PUR P.W	37.5	37	MANKERA	12.5
10	A.P.EAST	34.5	38	JATOI	11.8
11	MAILSI	30.0	39	LAYYAH	11.1
12	MULTAN	28.6	40	KAROR L.E.	10.9
13	SHUJABAD	28.6	41	SHORKOT	10.0
14	BAHAWAL PUR	26.8	42	OKARA	9.1
15	FORT ABBAS	26.7	43	RENALA KHURD	9.1
16	YAZMAN	25.0	44	PAK PATTAN	8.5
17	KHANEWAL	23.3	45	RAJAN PUR	8.0
18	DEPALPUR	23.1	46	ARIF WALA	7.7
19	SADIQ ABAD	22.2	47	JAM PUR	7.5
20	JAHANIAN	21.9	48	GOJRA	7.1
21	VEHARI	21.4	49	SAHIWAL	6.6
22	KHAN PUR	20.4	50	CHICHA WATNI	6.3
23	R.Y.KHAN	20.0	51	ISA KHEL	6.3
24	LIAQUAT PUR	20.0	52	DARYA KHAN	6.3
25	MUZUFAR GARH	18.0	53	ROJHAN	6.0
26	18-HAZARI	16.7	54	JHANG	4.5
27	BURE WALA	16.1	55	MIANWALI	3.3
28	LODHRAN	16.0	56	PIPLAN	3.3

**Table 2 Tehsil wise percentage of hot spots of Jassid**

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	DEPALPUR	23.1	16	FORT ABBAS	4.4
2	SAHIWAL	21.3	17	VEHARI	4.3
3	CHICHA WATNI	14.6	18	FAISALABAD	4.2
4	OKARA	9.1	19	ALI PUR	4.0
5	JATOI	7.8	20	LAYYAH	3.7
6	GOJRA	7.1	21	TAUNSA	3.6
7	MIANWALI	6.7	22	PIPLAN	3.3
8	SUMUNDRI	6.3	23	MINCHAN ABAD	2.4
9	RENALA KHURD	6.1	24	HAROON ABAD	2.3
10	ARIF WALA	5.8	25	PAK PATTAN	2.1
11	TANDLIANWALA	5.7	26	BAHAWAL NAGAR	2.0
12	CHOBARA	5.7	27	CHISHTIAN	2.0
13	KAROR L.E.	5.5	28	KEHROR PACCA	1.9
14	A.P SIAL	4.8	29	MAILSI	1.4
15	JHANG	4.5			

**No percentage of hot spots of Thrips in any Tehsil**

**Tehsil wise percentage of hot spots of Mealy bug**

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	KOT CHUTTA	47.3	26	KHANEWAL	6.7
2	D.G.KHAN	36.4	27	SADIQ ABAD	6.7
3	TAUNSA	29.1	28	PIPLAN	6.7
4	BAHAWAL PUR	28.6	29	ISA KHEL	6.3
5	JAHANIAN	28.1	30	SHUJABAD	6.1
6	YAZMAN	21.2	31	RENALA KHURD	6.1
7	MIAN CHANNU	21.1	32	RAJAN PUR	6.0
8	FORT ABBAS	20.0	33	JATOI	5.9
9	HAROON ABAD	18.2	34	ARIF WALA	5.8
10	CHISHTIAN	18.0	35	CHOBARA	5.7
11	BURE WALA	17.7	36	LAYYAH	5.6
12	KHAN PUR	16.7	37	18-HAZARI	5.6
13	KABIR WALA	15.2	38	KAROR L.E.	5.5
14	MINCHAN ABAD	14.3	39	JAM PUR	5.0
15	BAHAWAL NAGAR	14.0	40	A.P SIAL	4.8
16	R.Y.KHAN	13.3	41	OKARA	4.5
17	MUZUFAR GARH	10.0	42	VEHARI	4.3
18	HASILPUR	9.3	43	JALAL PUR P.W	4.2
19	A.P.EAST	9.1	44	LODHRAN	4.0
20	JHANG	9.1	45	ROJHAN	4.0
21	LIAQUAT PUR	8.0	46	KEHROR PACCA	3.7
22	ALI PUR	8.0	47	MIANWALI	3.3
23	DEPALPUR	7.7	48	MAILSI	2.9
24	MULTAN	7.1	49	PAK PATTAN	2.1
25	DUYAPUR	6.8	50	CHICHA WATNI	2.1

**No percentage of hot spots of Mites in any Tehsil**

**Tehsil wise percentage of hot spots of Dusky Cotton Bug**

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	HASILPUR	51.2	13	KOT ADDU	15.0
2	MULTAN	31.0	14	BURE WALA	14.5
3	KHANEWAL	30.0	15	MAILSI	14.3
4	JALAL PUR P.W	29.2	16	YAZMAN	11.5

5	SHUJABAD	28.6	17	A.P.EAST	7.3
6	ALI PUR	26.0	18	JAHANIAN	6.3
7	VEHARI	24.3	19	MUZUFAR GARH	6.0
8	BAHAWAL PUR	23.2	20	MIAN CHANNU	5.3
9	LODHRAN	22.0	21	MINCHAN ABAD	4.8
10	KABIR WALA	21.2	22	BAHAWAL NAGAR	4.0
11	KEHROR PACCA	18.5	23	CHISHTIAN	4.0
12	DUYAPUR	15.9	24	HAROOON ABAD	2.3

### Tehsil wise percentage of hot spots of army worm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	MULTAN	16.7	14	SAHIWAL	4.9
2	JALAL PUR P.W	14.6	15	FORT ABBAS	4.4
3	JAHANIAN	12.5	16	TAUNSA	3.6
4	DUYAPUR	11.4	17	KAROR L.E.	3.6
5	KEHROR PACCA	11.1	18	KHANEWAL	3.3
6	MIAN CHANNU	10.5	19	MIANWALI	3.3
7	A.P.EAST	9.1	20	PIPLAN	3.3
8	D.G.KHAN	9.1	21	KABIR WALA	3.0
9	LODHRAN	8.0	22	VEHARI	2.9
10	KOT CHUTTA	7.3	23	HAROOON ABAD	2.3
11	SHUJABAD	6.1	24	BAHAWAL NAGAR	2.0
12	JATOI	5.9	25	MAILSI	1.4
13	BAHAWAL PUR	5.4			

### Tehsil wise percentage of hot spots of Pink Bollworm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	SHUJABAD	32.7	29	KOT CHUTTA	12.7
2	DUYAPUR	31.8	30	JAHANIAN	12.5
3	VEHARI	31.4	31	DARYA KHAN	12.5
4	MULTAN	31.0	32	MINCHAN ABAD	11.9
5	BURE WALA	30.6	33	JATOI	11.8
6	LODHRAN	30.0	34	D.G.KHAN	10.9
7	SAHIWAL	29.5	35	KAROR L.E.	10.9
8	KEHROR PACCA	27.8	36	T.T.SINGH	10.9
9	MUZUFAR GARH	26.0	37	KALLOR KOT	10.5
10	MANKERA	25.0	38	MIANWALI	10.0
11	KOT ADDU	22.5	39	BAHAWAL PUR	8.9
12	PIR MAHAL	22.2	40	TANDLIANWALA	8.6
13	MAILSI	21.4	41	CHISHTIAN	8.0
14	GOJRA	21.4	42	ARIF WALA	7.7
15	KABIR WALA	21.2	43	HAROOON ABAD	6.8
16	MIAN CHANNU	21.1	44	FORT ABBAS	6.7
17	KHANEWAL	20.0	45	PIPLAN	6.7
18	CHOBARA	17.0	46	SUMUNDRI	6.3
19	KHAN PUR	16.7	47	ISA KHEL	6.3
20	LIAQUAT PUR	16.0	48	BAHAWAL NAGAR	6.0
21	ALI PUR	16.0	49	BHAKKAR	5.9
22	R.Y.KHAN	15.0	50	YAZMAN	5.8
23	LAYYAH	14.8	51	A.P.EAST	5.5
24	JALAL PUR P.W	14.6	52	A.P.SIAL	4.8
25	CHICHA WATNI	14.6	53	OKARA	4.5
26	HASILPUR	14.0	54	JHANG	4.5
27	SADIQ ABAD	13.3	55	TAUNSA	3.6
28	PAK PATTAN	12.8			

## No percentage of hot spots of American Bollworm in any Tehsil

## No percentage of hot spots of Spotted Bollworm in any Tehsil

## Tehsil wise percentage of hot spots of CLCuV

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	MAILSI	42.9	21	MANKERA	12.5
2	BURE WALA	41.9	22	LODHRAN	12.0
3	VEHARI	40.0	23	LIAQUAT PUR	12.0
4	ALI PUR	38.0	24	SADIQ ABAD	11.1
5	D.G.KHAN	34.5	25	BAHAWAL PUR	10.7
6	MULTAN	33.3	26	DUYAPUR	9.1
7	TAUNSA	32.7	27	CHICHA WATNI	6.3
8	SHUJABAD	30.6	28	DARYA KHAN	6.3
9	JALAL PUR P.W	25.0	29	KEHROR PACCA	5.6
10	JATOI	23.5	30	KHAN PUR	5.6
11	R.Y.KHAN	23.3	31	18-HAZARI	5.6
12	HASILPUR	23.3	32	MIAN CHANNU	5.3
13	A.P.EAST	21.8	33	MINCHAN ABAD	4.8
14	KOT CHUTTA	21.8	34	JHANG	4.5
15	KABIR WALA	18.2	35	PAK PATTAN	4.3
16	MUZUFAR GARH	18.0	36	BAHAWAL NAGAR	4.0
17	JAHANIAN	15.6	37	ARIF WALA	3.8
18	CHOBARA	15.1	38	KAROR L.E.	3.6
19	KOT ADDU	15.0	39	CHISHTIAN	2.0
20	KHANEWAL	13.3	40	SAHIWAL	1.6

## 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	30.43	16.00	73.71	0.00	29.90	18.70	77.00	0.00
KHANEWAL	31.00	16.75	71.63	0.00	30.38	18.25	68.00	0.00
VEHARI	31.84	17.71	70.86	0.00	31.56	19.33	66.83	0.00
LODHRAN	31.43	17.43	70.64	0.00	31.57	19.14	67.36	0.00
Sahiwal	33.00	16.00	73.00	0.00	33.40	18.00	71.00	0.00
Pakpattan	34.00	17.60	68.00	0.00	35.00	18.60	69.00	0.00
Okara	31.82	21.97	77.57	0.00	32.80	24.01	74.95	0.00
Bahawalpur	32.11	17.11	52.50	0.00	32.85	18.29	49.88	0.00
Bahawalnagar	34.71	17.36	54.29	0.00	34.07	18.29	52.29	0.00
R.Y. Khan	32.50	16.71	41.71	0.00	36.79	20.57	79.00	0.00
D.G. Khan	33.86	16.29	72.36	0.00	34.29	21.29	49.86	0.00
Muzaffar Garh	34.00	21.33	48.00	0.00	33.37	20.30	46.25	0.00
Rajanpur	38.6	16.3	63.30	0.00	35.80	19.5	56.20	0.00
Layyah	31.00	15.71	71.00	0.00	32.85	17.71	61.42	3.00
<b>TOT/AVG</b>	<b>32.88</b>	<b>17.45</b>	<b>64.90</b>	<b>0.00</b>	<b>33.19</b>	<b>19.43</b>	<b>63.50</b>	<b>3.00</b>

## Weather forecast for next 7 day in cotton zone

Division	Dated	28/10	29/10	30/10	31/10	1/11	2/11	3/11
Multan	Max.Temp.	32	32	32	32	30	31	29
	Min.Temp.	18	17	17	16	18	17	17
	Humidity %	22	21	20	18	7	6	3
Sahiwal	Max.Temp.	32	32	31	31	29	29	29
	Min.Temp.	15	15	15	14	18	18	19
	Humidity %	20	23	23	19	7	6	8
Bahawalpur	Max.Temp.	32	32	32	32	30	31	31
	Min.Temp.	18	17	16	16	15	15	13
	Humidity %	23	25	23	22	6	5	5
D.G. Khan	Max.Temp.	33	33	33	33	30	30	29
	Min.Temp.	15	17	16	14	18	17	16
	Humidity %	18	18	18	16	6	5	4
Average Cotton Region	Max.Temp.	31.14						
	Min.Temp.	16.32						
	Humidity %	14.18						

Source: [timeanddate.com](http://timeanddate.com)

### Summary of weather forecast

Overall weather for seven days in cotton zone during next week will remain mild.

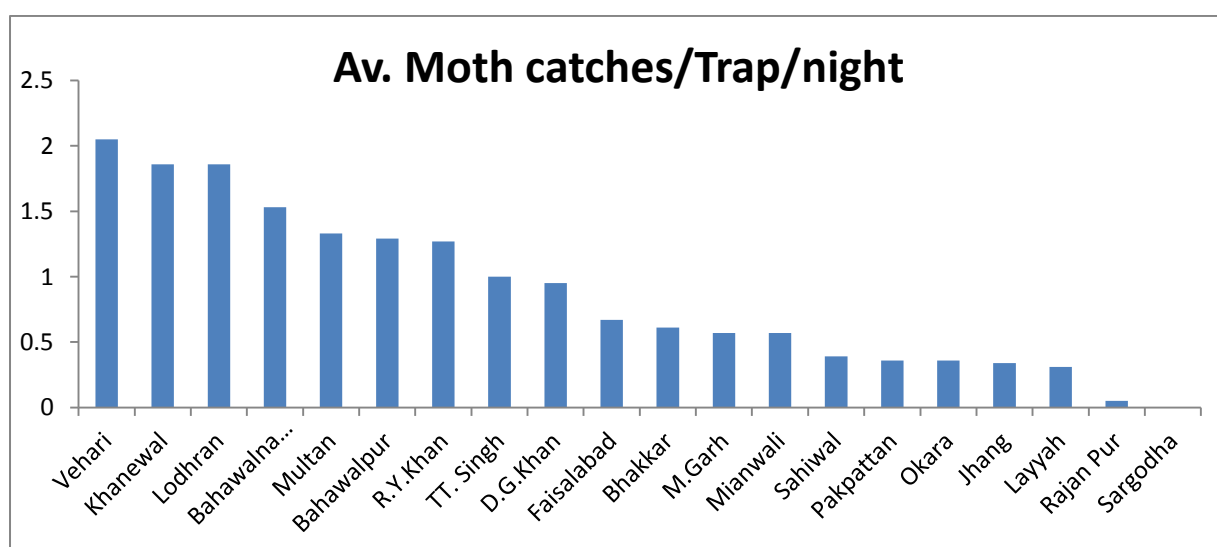
Pest Forecast for Next 15 days				
Avg. Temperature for next 15 days = 29.56°C				
Avg. Relative Humidity for next 15 days= 18.71%				
Sr. No.	Pest Name	Opt. Temperature	Relative Humidity	Pest Prediction
1	Whitefly	35-42 °C	<50%	May Decrease
2	Jassid	35-40 °C	>70%	May Decrease
3	Thrips	35-40 °C	<60%	May be Low
4	Mealy Bug	35-40 °C	<60-80%	May Decrease
5	Mites	28-40 °C	<40-50%	May be Low
6	Dusky Cotton Bug	28-40 °C	<50-80%	May Increase
7	Pink Bollworm	32-40 °C	<60-80%	May Sustain
8	American Bollworm	32-40 °C	<50-70%	May be Low
9	Spotted Bollworm	30-40 °C	<60-100%	May be Low
10	Armyworm	30-40 °C	>70-100%	May Decrease
11	CLCuV	-	-	May Decrease

## Forecast of Sucking Pests:

### Moth Catches in Pheromone Traps during 4<sup>th</sup> Week of October, 2020

Moth Catches in Pheromone Traps During 4 <sup>th</sup> Week of October, 2020			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	56	1.33
Khanewal	8	104	1.86
Vehari	6	86	2.05
Lodhran	6	78	1.86
Sahiwal	4	11	0.39
Pakpattan	4	10	0.36
Okara	4	10	0.36
Bahawalpur	8	72	1.29
Bahawalnagar	10	107	1.53
R.Y.Khan	8	71	1.27
D.G.Khan	6	40	0.95
M.Garh	8	32	0.57
Rajan Pur	6	2	0.05
Layyah	6	13	0.31
Sargodha	2	0	0.00
Mianwali	4	16	0.57
Bhakkar	8	34	0.61
Faisalabad	6	28	0.67
TT. Singh	6	42	1.00
Jhang	8	19	0.34

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



## Moth catches on light traps during 4<sup>th</sup> Week of October, 2020

Moth Catches on Light Traps/Trap/week During 4 <sup>th</sup> Week of October, 2020				
District	Traps Installed	A.B.W	S.B.W	Armyworm
Multan	3	0	0	1
Khanewal	4	0	0	27
Vehari	3	0	0	7
Lodhran	3	1	0	28
Sahiwal	2	3	0	7
Pakpattan	2	2	0	3
Okara	3	3	0	4
Bahawalpur	4	2	1	10
Bahawalnagar	5	1	0	13
R.Y.Khan	4	3	3	6
D.G.Khan	3	2	4	4
M.Garh	4	3	2	2
Rajan Pur	3	0	0	0
Layyah	3	4	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#	CHEMICAL NAME	DOSE (Per Acre)
1	Spirotetramate	125 ml
2	Pyriproxifen 10.8 EC	500 ml
3	Buprofezin	600 gm
4	Flonicamid 50 WG	60-80 gm
5	Diafenturon	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#	CHEMICAL NAME	DOSE (Per Acre)
1	Flonicamid 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#	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#	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#	CHEMICAL NAME	DOSE (Per Acre)
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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#	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 <sup>nd</sup> 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