

PEST SITUATION ON COTTON CROP IN PUNJAB DURING 1ST 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	41.26	55.72	39.87	59.04	21.73	72.37	High & Increasing
2	Jassid	5.99	83.46	7.57	84.55	4.74	80.33	High & Decreasing
3	Thrips	0.22	73.91	0.32	84.38	0.00	66.46	Low
4	Mealy Bug	19.38	-	22.55	-	17.71	-	High & Decreasing
5	Mites	0.00	0.25	0.00	1.09	0.00	0.07	Low
6	Dusky Cotton Bug	2.15	32.47	1.83	31.84	1.38	30.68	Increasing
7	Pink Bollworm	12.52	32.76	10.77	31.49	12.75	34.23	High & Increasing
8	American Bollworm	0.00	0.36	0.04	0.60	0.00	0.14	Low
9	Spotted Bollworm	0.00	0.75	0.00	0.46	0.00	0.58	Low
10	Armyworm	5.35	-	5.52	-	4.89	-	Sustaining
11	CLCuV	20.31	-	20.76	-	15.25	-	Sustaining

Tehsil wise percentage of hot spots of Whitefly

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	JAM PUR	94.0	31	HASILPUR	39.6
2	RAJAN PUR	87.7	32	BURE WALA	37.7
3	ROJHAN	82.4	33	TAUNSA	36.4
4	JALAL PUR P.W	72.5	34	HAROON ABAD	34.1
5	SHUJABAD	70.0	35	MINCHAN ABAD	34.0
6	KOT CHUTTA	69.1	36	KALLOR KOT	33.3
7	BAHAWAL PUR	67.2	37	JAHANIAN	32.6
8	MULTAN	66.0	38	MANKERA	30.0
9	A.P.EAST	64.3	39	SAHIWAL	28.1
10	D.G.KHAN	62.5	40	DARYA KHAN	26.7
11	LIAQUAT PUR	62.0	41	CHICHA WATNI	26.6
12	KHAN PUR	60.4	42	CHOBARA	25.5
13	R.Y.KHAN	60.0	43	KAROR L.E.	25.0
14	SADIQ ABAD	60.0	44	LAYYAH	21.8
15	KOT ADDU	60.0	45	PAK PATTAN	20.4
16	MUZUFAR GARH	58.0	46	BHAKKAR	20.0
17	DUYAPUR	54.7	47	ARIF WALA	16.3
18	MIAN CHANNU	50.0	48	18-HAZARI	15.4
19	LODHRAN	50.0	49	GOJRA	15.2
20	YAZMAN	50.0	50	PIR MAHAL	13.3
21	FORT ABBAS	48.9	51	OKARA	11.6
22	KHANEWAL	48.8	52	DEPALPUR	11.5
23	ALI PUR	48.0	53	MIANWALI	10.0
24	JATOI	47.9	54	PIPLAN	10.0
25	BAHAWAL NAGAR	46.0	55	ISA KHEL	10.0
26	CHISHTIAN	46.0	56	JHANG	8.3
27	KABIR WALA	45.0	57	A.P SIAL	6.7
28	MAILSI	44.0	58	SHORKOT	6.7
29	KEHROR PACCA	42.5	59	RENALA KHURD	5.9

30	VEHARI	40.0	60	T.T.SINGH	4.3
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Tehsil wise percentage of hot spots of Jassid

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	SAHIWAL	26.3	24	PIR MAHAL	6.7
2	CHICHA WATNI	20.3	25	MIANWALI	6.7
3	JARANWALA	16.7	26	PIPLAN	6.7
4	SUMUNDRI	15.8	27	DARYA KHAN	6.7
5	DEPALPUR	15.4	28	MINCHAN ABAD	6.4
6	T.T.SINGH	14.9	29	JATOI	6.3
7	PAK PATTAN	14.3	30	BAHAWAL NAGAR	6.0
8	ARIF WALA	14.3	31	ALI PUR	6.0
9	KALLOR KOT	13.3	32	KHAN PUR	5.7
10	CHOBARA	12.7	33	TANDLIANWALA	5.3
11	KAROR L.E.	12.5	34	R.Y.KHAN	5.0
12	HAROON ABAD	12.2	35	ISA KHEL	5.0
13	GOJRA	12.1	36	JHANG	4.2
14	OKARA	11.6	37	FAISALABAD	4.2
15	BURE WALA	11.3	38	LIAQUAT PUR	4.0
16	VEHARI	10.0	39	TAUNSA	3.6
17	CHISHTIAN	10.0	40	JALAL PUR P.W	2.5
18	SADIQ ABAD	10.0	41	KABIR WALA	2.5
19	LAYYAH	9.1	42	JAHANIAN	2.3
20	MAILSI	8.0	43	HASILPUR	2.1
21	RENALA KHURD	7.8	44	MULTAN	2.0
22	FORT ABBAS	6.7	45	KOT CHUTTA	1.8
23	A.P.SIAL	6.7		PIR MAHAL	6.7

Tehsil wise percentage of hot spots of Thrips

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	KAROR L.E.	8.9	2	TAUNSA	1.8

Tehsil wise percentage of hot spots of mealy bug

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	BAHAWAL PUR	49.2	27	KHANEWAL	17.1
2	R.Y.KHAN	46.7	28	KEHROR PACCA	16.1
3	YAZMAN	46.4	29	MIAN CHANNU	14.3
4	KOT CHUTTA	45.5	30	PIR MAHAL	13.3
5	RAJAN PUR	44.6	31	MIANWALI	13.3
6	SADIQ ABAD	44.0	32	PIPLAN	13.3
7	DUYAPUR	39.6	33	MINCHAN ABAD	12.8
8	KHAN PUR	37.7	34	JALAL PUR P.W	12.5
9	CHISHTIAN	36.0	35	KABIR WALA	12.5
10	ROJHAN	35.3	36	VEHARI	12.0
11	ALI PUR	34.0	37	KOT ADDU	12.0
12	D.G.KHAN	33.9	38	MUZUFAR GARH	10.0
13	MULTAN	32.0	39	ISA KHEL	10.0
14	JAM PUR	30.0	40	JAHANIAN	9.3
15	FORT ABBAS	28.9	41	CHOBARA	9.1
16	SHUJABAD	28.0	42	GOJRA	9.1
17	LIAQUAT PUR	28.0	43	KAROR L.E.	8.9
18	TAUNSA	25.5	44	18-HAZARI	7.7
19	BURE WALA	24.5	45	LAYYAH	7.3
20	BAHAWAL NAGAR	20.0	46	T.T.SINGH	6.4
21	A.P.EAST	19.6	47	ARIF WALA	6.1

22	HAROON ABAD	19.5	48	JHANG	4.2
23	HASILPUR	18.8	49	CHICHA WATNI	3.1
24	JATOI	18.8	50	OKARA	2.3
25	MAILSI	18.0	51	PAK PATTAN	2.0
26	LODHRAN	17.9	52	RENALA KHURD	2.0

No 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	25.0	10	MIAN CHANNU	4.8
2	BAHAWAL PUR	14.8	11	MAILSI	4.0
3	JALAL PUR P.W	12.5	12	ALI PUR	4.0
4	KABIR WALA	12.5	13	BURE WALA	3.8
5	KHANEWAL	7.3	14	MIANWALI	3.3
6	MULTAN	6.0	15	PIPLAN	3.3
7	SHUJABAD	6.0	16	KEHROR PACCA	2.3
8	VEHARI	6.0	17	DUYAPUR	1.9
9	CHISHTIAN	6.0	18	LODHRAN	1.8

Tehsil wise percentage of hot spots of Army Worm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	KEHROR PACCA	18.4	21	CHICHA WATNI	6.3
2	MULTAN	16.0	22	HASILPUR	6.3
3	SADIQ ABAD	16.0	23	KOT ADDU	6.0
4	JATOI	14.6	24	KAROR L.E.	5.4
5	LODHRAN	14.3	25	KHANEWAL	4.9
6	R.Y.KHAN	13.3	26	JHANG	4.2
7	DARYA KHAN	13.3	27	BAHAWAL NAGAR	4.0
8	BAHAWAL PUR	13.1	28	TAUNSA	3.6
9	KOT CHUTTA	12.7	29	MIANWALI	3.3
10	A.P.EAST	10.7	30	PIPLAN	3.3
11	YAZMAN	10.7	31	GOJRA	3.0
12	LIAQUAT PUR	10.0	32	KABIR WALA	2.5
13	ALI PUR	10.0	33	JAHANIAN	2.3
14	D.G.KHAN	8.9	34	T.T.SINGH	2.1
15	DUYAPUR	7.5	35	SHUJABAD	2.0
16	KHAN PUR	7.5	36	VEHARI	2.0
17	JALAL PUR P.W	7.5	37	MAILSI	2.0
18	MIAN CHANNU	7.1	38	CHISHTIAN	2.0
19	FORT ABBAS	6.7	39	BURE WALA	1.9
20	PIR MAHAL	6.7			

Tehsil wise percentage of hot spots of Pink Bollworm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	SAHIWAL	38.6	30	SADIQ ABAD	12.0
2	ALI PUR	30.0	31	A.P.EAST	10.7
3	MANKERA	30.0	32	TANDLIANWALA	10.5
4	KEHROR PACCA	28.7	33	MAILSI	10.0
5	BURE WALA	28.3	34	BAHAWAL NAGAR	10.0
6	LODHRAN	26.8	35	MIANWALI	10.0
7	DUYAPUR	26.4	36	LIAQUAT PUR	8.0
8	CHICHA WATNI	25.0	37	MUZUFAR GARH	8.0
9	MULTAN	24.0	38	KOT ADDU	8.0
10	MIAN CHANNU	21.4	39	KHANEWAL	7.3
11	BAHAWAL PUR	21.3	40	FORT ABBAS	6.7
12	SHUJABAD	20.0	41	PIPLAN	6.7

13	BHAKKAR	20.0	42	ARIF WALA	6.1
14	KALLOR KOT	20.0	43	KHAN PUR	5.7
15	DARYA KHAN	20.0	44	KOT CHUTTA	5.5
16	VEHARI	18.0	45	LAYYAH	5.5
17	PIR MAHAL	16.7	46	SUMUNDRI	5.3
18	JARANWALA	16.7	47	R.Y.KHAN	5.0
19	CHISHTIAN	16.0	48	ISA KHEL	5.0
20	GOJRA	15.2	49	JAHANIAN	4.7
21	HASILPUR	14.6	50	OKARA	4.7
22	PAK PATTAN	14.3	51	RAJAN PUR	4.6
23	YAZMAN	14.3	52	MINCHAN ABAD	4.3
24	T.T.SINGH	12.8	53	FAISALABAD	4.2
25	CHOBARA	12.7	54	RENALA KHURD	3.9
26	JALAL PUR P.W	12.5	55	DEPALPUR	3.8
27	KABIR WALA	12.5	56	D.G.KHAN	3.6
28	JATOI	12.5	57	TAUNSA	1.8
29	KAROR L.E.	12.5			

No Hot Spots of American Bollworm in any Tehsil

No Hot Spots of Spotted Bollworm in any Tehsil

Tehsil wise percentage of hot spots of CLCuV

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	JALAL PUR P.W	72.5	24	JAHANIAN	20.9
2	ALI PUR	66.0	25	KALLOR KOT	20.0
3	MUZUFAR GARH	64.0	26	DARYA KHAN	20.0
4	SHUJABAD	60.0	27	A.P.EAST	19.6
5	VEHARI	60.0	28	KHAN PUR	18.9
6	MULTAN	52.0	29	MIAN CHANNU	16.7
7	MAILSI	52.0	30	KAROR L.E.	16.1
8	BURE WALA	45.3	31	CHOBARA	14.5
9	SADIQ ABAD	44.0	32	PIPLAN	10.0
10	KOT ADDU	42.0	33	MANKERA	10.0
11	LIAQUAT PUR	38.0	34	ARIF WALA	8.2
12	HASILPUR	35.4	35	PIR MAHAL	6.7
13	JATOI	33.3	36	MIANWALI	6.7
14	R.Y.KHAN	31.7	37	CHICHA WATNI	6.3
15	KOT CHUTTA	30.9	38	BAHAWAL NAGAR	6.0
16	D.G.KHAN	30.4	39	MINCHAN ABAD	4.3
17	LODHRAN	28.6	40	YAZMAN	3.6
18	TAUNSA	27.3	41	GOJRA	3.0
19	KABIR WALA	25.0	42	T.T.SINGH	2.1
20	BAHAWAL PUR	24.6	43	PAK PATTAN	2.0
21	DUYAPUR	24.5	44	CHISHTIAN	2.0
22	KHANEWAL	24.4	45	SAHIWAL	1.8
23	KEHROR PACCA	24.1			

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	35.86	21.86	71.21	0.00	34.00	26.00	81.00	28.30
KHANEWAL	36.51	21.50	61.14	0.00	35.29	26.00	77.71	2.00
VEHARI	34.56	22.29	70.22	0.00	32.50	25.25	71.13	18.00
LODHRAN	36.27	22.57	63.71	0.00	33.71	25.29	73.00	17.00
SAHIWAL	36.30	20.84	60.50	0.00	37.80	23.90	58.40	0.00
PAKPATTAN	35.00	24.13	53.63	0.00	36.50	24.60	53.75	0.00
OKARA	36.61	23.87	76.52	0.00	35.74	25.38	75.65	0.00
BAHAWALPUR	37.00	22.17	54.17	0.00	33.08	22.98	69.72	4.98
BAHAWALNAGAR	37.89	21.89	55.67	0.00	40.13	28.81	56.38	0.00
R.Y.KHAN	39.67	27.28	47.30	0.00	37.15	23.55	79.60	0.00
D.G. KHAN	37.86	23.86	51.43	0.00	33.57	24.14	63.07	27.00
MUZAFFARGARH	36.86	22.16	50.70	0.00	32.00	24.00	33.64	16.30
RAJANPUR	40.4	22.3	62.10	0.00	36.40	20.4	65.30	0.00
LAYYAH	35.00	20.71	46.14	0.00	30.85	20.14	79.28	52.00
TOT/AVG	36.84	22.67	58.89	0.00	34.91	24.32	66.97	165.58

Weather forecast for next 7 day in cotton zone

Division	Dated	7/10	8/10	9/10	10/10	11/10	12/10	13/10
Multan	Max.Temp.	38	38	38	38	36	36	35
	Min.Temp.	23	22	23	23	22	21	22
	Humidity %	18	17	17	17	17	11	7
Sahiwal	Max.Temp.	37	37	38	38	36	38	35
	Min.Temp.	20	20	19	20	18	19	23
	Humidity %	21	21	20	20	21	15	9
Bahawalpur	Max.Temp.	38	38	38	38	37	38	36
	Min.Temp.	22	23	23	23	22	19	19
	Humidity %	20	19	19	17	17	13	9
D.G. Khan	Max.Temp.	39	39	39	39	39	37	34
	Min.Temp.	22	21	22	22	21	20	22
	Humidity %	15	15	15	13	13	9	8
Average Cotton Region	Max.Temp.	37.39						
	Min.Temp.	21.29						
	Humidity %	15.46						

Source: timeanddate.com

Summary of weather forecast

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

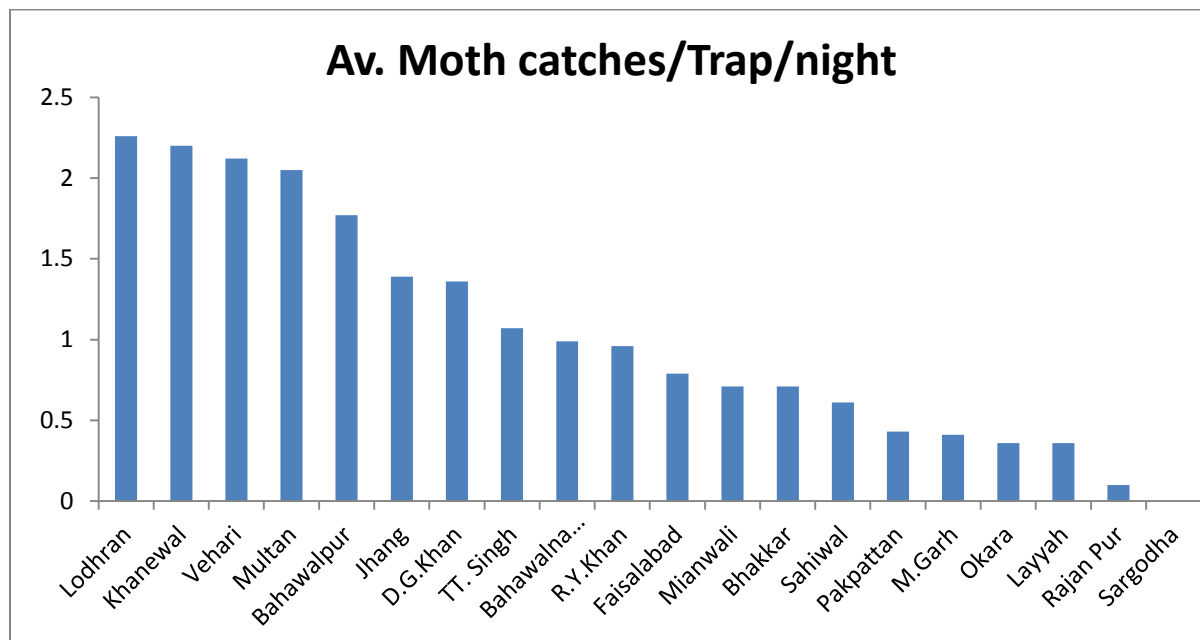
Pest Forecast for Next 15 days				
Avg. Temperature for next 15 days = 28.37°C				
Avg. Relative Humidity for next 15 days= 15.54%				
Sr. No.	Pest Name	Opt. Temperature	Relative Humidity	Pest Prediction
1	Whitefly	35-42 °C	<50%	May Increase
2	Jassid	35-40 °C	>70%	May Decrease
3	Thrips	35-40 °C	<60%	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 Increase
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%	Sustain
11	CLCuV	-	-	Sustain

Forecast of Sucking Pests:

Moth Catches in Pheromone Traps during 1st Week of October, 2020

Moth Catches in Pheromone Traps During 1st Week of October, 2020			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	86	2.05
Khanewal	8	123	2.20
Vehari	6	89	2.12
Lodhran	6	95	2.26
Sahiwal	4	17	0.61
Pakpattan	4	12	0.43
Okara	4	10	0.36
Bahawalpur	8	99	1.77
Bahawalnagar	10	69	0.99
R.Y.Khan	8	54	0.96
D.G.Khan	4	38	1.36
M.Garh	8	23	0.41
Rajan Pur	6	4	0.10
Layyah	6	15	0.36
Sargodha	2	0	0.00
Mianwali	4	20	0.71
Bhakkar	8	40	0.71
Faisalabad	6	33	0.79
TT. Singh	6	45	1.07
Jhang	4	39	1.39

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



Moth catches on light traps during 1st Week of October, 2020

Moth Catches on Light Traps/Trap/week During 1 st Week of October, 2020				
District	Traps Installed	A.B.W	S.B.W	Armyworm
Multan	3	1	0	3
Khanewal	4	2	0	39
Vehari	3	0	0	11
Lodhran	3	3	0	32
Sahiwal	2	2	0	5
Pakpattan	2	3	0	6
Okara	3	3	0	4
Bahawalpur	4	3	2	13
Bahawalnagar	5	5	4	15
R.Y.Khan	4	2	2	9
D.G.Khan	3	4	5	6
M.Garh	4	7	7	6
Rajan Pur	3	2	0	0
Layyah	3	5	0	4

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.

- Control weeds in and outside the field especially near water channels and fallow lands.
- 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	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

- Eradicate weeds.
- Conduct Pest Scouting at least twice a week.
- Use *Chrysoperla* Cards @ 80-90 cards per acre having 20-25 eggs/card
- 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

- Conduct Pest Scouting regularly at least twice a week.
- Avoid intercropping of cotton crop with vegetables.

- Control weeds in and outside the field.
- 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

- Visit the fields daily to detect the infestation for effective management of mealy bug well in time.
- Keep field and water courses etc. free from weeds especially Itsit & Hazaardani.
- 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.
- Uproot and keep the infested plants gently in plastic bags and bury in the soil outside the field.
- Avoid water stress to the plants.
- 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:

- Use Sex Pheromone Traps for monitoring of PBW
- Eradicate rosette flowers.
- 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)
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 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