

PEST SITUATION ON COTTON CROP IN PUNJAB DURING 3rd WEEK OF JULY, 2022

Whitefly: On overall Punjab basis 28.63 above ETL spots have been observed during current week as compared to 21.81% in last week and 12.18% during the same corresponding period of last year. And 70.24% below ETL spots have been observed during current week as compared to 77.07% in last week and 86.55% during the same corresponding period of last year.

Tehsil wise percentage of hot spots of whitefly

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	VEHARI	59.1	33	PAK PATTAN	25.0
2	MAILSI	50.0	34	YAZMAN	25.0
3	ROJHAN	50.0	35	CHISHTIAN	25.0
4	KOT CHUTTA	49.0	36	HAROON ABAD	24.4
5	MIAN CHANNU	48.8	37	JAM PUR	24.4
6	KABIR WALA	46.3	38	KEHROR PACCA	23.1
7	JALAL PUR P.W	45.5	39	OKARA	22.7
8	SHUJABAD	45.1	40	FAISALABAD	22.2
9	KHANEWAL	43.9	41	MANKERA	21.7
10	ALI PUR	42.0	42	18-HAZARI	20.0
11	JAHANIAN	41.9	43	LODHRAN	19.6
12	MUZUFAR GARH	40.5	44	LAYYAH	18.8
13	BAHAWAL PUR	39.1	45	RENALA KHURD	18.2
14	ARIF WALA	38.2	46	JHANG	17.9
15	KOT ADDU	37.5	47	CHOBARA	17.6
16	D.G.KHAN	36.4	48	KALLOR KOT	17.2
17	RAJAN PUR	36.4	49	BHAKKAR	15.8
18	MULTAN	36.1	50	SADIQ ABAD	15.2
19	FORT ABBAS	36.0	51	LIAQUAT PUR	14.9
20	DARYA KHAN	35.7	52	KAROR L.E.	14.6
21	PIR MAHAL	35.5	53	TANDLIANWALA	14.0
22	JATOI	34.1	54	R.Y.KHAN	14.0
23	CHICHA WATNI	32.5	55	A.P SIAL	13.8
24	MINCHAN ABAD	32.5	56	GOJRA	13.5
25	T.T.SINGH	32.5	57	SUMUNDRI	13.5
26	TAUNSA	31.7	58	DEPALPUR	13.3
27	BURE WALA	31.3	59	ISA KHEL	11.1
28	DUYAPUR	29.8	60	A.P.EAST	9.6
29	BAHAWAL NAGAR	29.8	61	SHORKOT	7.9
30	HASILPUR	28.6	62	PIPLAN	3.2
31	SAHIWAL	27.8	63	MIANWALI	2.7
32	KHAN PUR	26.8			

Jassid: On overall Punjab basis 18.12% above ETL spots has been observed as compared to 15.90% in last week and same week of last year 22.54%. And 80.23% below ETL spots have been observed during current week as compared to 81.93% in last week and 76.35% during the same corresponding period of last year.

Tehsil wise percentage of hot spots of Jassid

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	VEHARI	43.2	32	PIPLAN	19.4
2	DARYA KHAN	42.9	33	YAZMAN	18.2
3	KOT ADDU	42.5	34	LAYYAH	16.7
4	BHAKKAR	36.8	35	MIANWALI	16.2
5	MANKERA	34.8	36	18-HAZARI	16.0
6	T.T.SINGH	32.5	37	KAROR L.E.	14.6
7	BAHAWAL PUR	28.3	38	HASILPUR	14.3
8	BURE WALA	28.1	39	JAHANIAN	14.0
9	JALAL PUR P.W	27.3	40	KALLOR KOT	13.8
10	KEHROR PACCA	25.6	41	RENALA KHURD	13.6
11	RAJAN PUR	25.0	42	PIR MAHAL	12.9
12	TAUNSA	24.4	43	DUYAPUR	12.8
13	R.Y.KHAN	24.0	44	KHANEWAL	12.2
14	SHUJABAD	23.5	45	JATOI	11.4
15	ARIF WALA	23.5	46	FAISALABAD	11.1
16	MULTAN	23.0	47	ISA KHEL	11.1
17	MAILSI	22.7	48	JHANG	10.7
18	OKARA	22.7	49	CHICHA WATNI	10.0
19	FORT ABBAS	22.0	50	PAK PATTAN	10.0
20	D.G.KHAN	21.8	51	KABIR WALA	9.8
21	SADIQ ABAD	21.7	52	MUZUFAR GARH	9.5
22	GOJRA	21.6	53	HAROON ABAD	8.9
23	KOT CHUTTA	21.6	54	TANDLIANWALA	8.8
24	CHOBARA	21.6	55	SHORKOT	7.9
25	KHAN PUR	21.4	56	DEPALPUR	6.7
26	LIAQUAT PUR	21.3	57	BAHAWAL NAGAR	6.4
27	A.P.EAST	21.2	58	MINCHAN ABAD	5.0
28	CHISHTIAN	20.5	59	JAM PUR	4.9
29	ALI PUR	20.0	60	SUMUNDRI	3.8
30	LODHRAN	19.6	61	A.P SIAL	3.4
31	MIAN CHANNU	19.5			

Thrips: On overall Punjab basis 4.07% above ETL spots has been observed as compared to 3.86% in last week and same week of last year i.e. 8.78%. And 92.47% below ETL spots have been observed during current week as compared to 92.49% in last week and 89.04% during the same corresponding period of last year.

Tehsil wise percentage of hot spots of Thrips

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	JATOI	25.0	17	HASILPUR	4.8
2	MUZUFAR GARH	23.8	18	MAILSI	4.5
3	RAJAN PUR	22.7	19	OKARA	4.5
4	BAHAWAL PUR	19.6	20	LAYYAH	4.2
5	MULTAN	13.1	21	FORT ABBAS	4.0
6	JAM PUR	12.2	22	SUMUNDRI	3.8
7	ROJHAN	10.7	23	KHAN PUR	3.6
8	ALI PUR	10.0	24	SHORKOT	2.6
9	BAHAWAL NAGAR	8.5	25	KHANEWAL	2.4
10	18-HAZARI	8.0	26	CHISHTIAN	2.3
11	VEHARI	6.8	27	YAZMAN	2.3
12	PIPLAN	6.5	28	DUYAPUR	2.1
13	BURE WALA	6.3	29	KAROR L.E.	2.1
14	MIANWALI	5.4	30	SHUJABAD	2.0
15	BHAKKAR	5.3	31	CHOBARA	2.0
16	KOT ADDU	5.0	32	D.G.KHAN	1.8

Mealy Bug: On overall Punjab basis 5.36% spots (all considered above ETL) of Mealy Bug have been observed as compared to 3.61% in last week and 7.36% spots during the same corresponding period of the last year.

Tehsil wise percentage of hot spots of Mealy bug

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	JALAL PUR P.W	25.0	22	KOT CHUTTA	5.9
2	SHUJABAD	23.5	23	KEHROR PACCA	5.1
3	JATOI	18.2	24	KOT ADDU	5.0
4	T.T.SINGH	12.5	25	CHICHA WATNI	5.0
5	FORT ABBAS	12.0	26	JAM PUR	4.9
6	CHISHTIAN	11.4	27	JAHANIAN	4.7
7	HAROON ABAD	11.1	28	RAJAN PUR	4.5
8	HASILPUR	9.5	29	OKARA	4.5
9	DUYAPUR	8.5	30	BAHAWAL PUR	4.3
10	KAROR L.E.	8.3	31	BAHAWAL NAGAR	4.3
11	MULTAN	8.2	32	LAYYAH	4.2
12	ALI PUR	8.0	33	18-HAZARI	4.0
13	R.Y.KHAN	8.0	34	D.G.KHAN	3.6
14	MIAN CHANNU	7.3	35	KHAN PUR	3.6
15	KABIR WALA	7.3	36	KALLOR KOT	3.4
16	MUZUFAR GARH	7.1	37	PIPLAN	3.2
17	ROJHAN	7.1	38	MIANWALI	2.7
18	MAILSI	6.8	39	GOJRA	2.7
19	LODHRAN	6.5	40	KHANEWAL	2.4
20	PIR MAHAL	6.5	41	TAUNSA	2.4
21	CHOBARA	5.9	42	LIAQUAT PUR	2.1

Mites: On overall Punjab basis 0.00% above ETL spots have been observed during current week as compared to 0.00% in last week and 0.00% during the same corresponding period of last year. And 1.01% below ETL spots have been observed during current week as compared to 0.88% in last week and 2.23% during the same corresponding period of last year.

Tehsil wise percentage of hot spots of Mites

No hot spot find yet.

Dusky Cotton Bug: On overall Punjab basis 0.40% above ETL spots have been observed during current week as compared to 0.08% in last week and 0.00% during the same corresponding period of last year. And 24.57% below ETL spots have been observed during current week as compared to 20.12% in last week and 9.14 % during the same corresponding period of last year.

Tehsil wise percentage of hot spots of Dusky bug

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	MULTAN	9.8	2	SHUJABAD	7.8

Armyworm: On overall Punjab basis 0.28% spots (all considered above ETL) of Armyworm have been observed as compared to 0.24% in last week and 0.56% spots during the same corresponding period of the last year.

Tehsil wise percentage of hot spots of Army worm

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	ISA KHEL	11.1	4	KABIR WALA	2.4
2	MULTAN	3.3	5	BAHAWAL PUR	2.2
3	PIPLAN	3.2	6	FORT ABBAS	2.0

Pink Boll Worm: On overall Punjab basis 0.16% above ETL spots have been observed as compared to 0.08% in last week and 1.27% same corresponding period of the last year. And 5.32% below ETL spots have been observed as compared to 4.23% in last week and 15.69% during same corresponding period of last year.

Tehsil wise percentage of hot spots of PBW

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	DUYAPUR	4.3	3	JAHANIAN	2.3
2	KHANEWAL	2.4			

American Bollworm: On overall Punjab basis 0.04% above ETL spots have been observed as compared to 0.04 in last week and 0.05% during same corresponding period of last year. And 0.52% below ETL spots have been observed as compared to 0.08% in last week and 0.86% during same corresponding period of last year.

Tehsil wise percentage of hot spots of ABW

S. NO.	TEHSIL	%AGE
1	BAHAWAL PUR	2.2

Spotted Bollworm: On overall Punjab basis 0.00% above ETL spots have been observed as compared to 0.04% in last week and 0.00% during same corresponding period of last year & 0.08% below ETL spots have been observed as compared to 0.04% in last week and 0.36% during same corresponding period of last year.

Tehsil wise percentage of hot spots of SBW

No hot spot find.

CLCuV: On overall Punjab basis 27.35% spots (all considered above ETL) of CLCV have been observed as compared to 19.88% in last week and 5.08% during the same corresponding period of the last year.

Tehsil wise percentage of hot spots CLCuV

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	MULTAN	91.8	28	MANKERA	26.1
2	JALAL PUR P.W	84.1	29	SADIQ ABAD	26.1
3	MUZUFAR GARH	76.2	30	MIAN CHANNU	24.4
4	VEHARI	72.7	31	HASILPUR	23.8
5	ROJHAN	67.9	32	LIAQUAT PUR	23.4
6	SHUJABAD	66.7	33	KAROR L.E.	22.9
7	RAJAN PUR	63.6	34	ISA KHEL	22.2
8	KABIR WALA	53.7	35	JAM PUR	22.0
9	KEHROR PACCA	46.2	36	KHAN PUR	17.9
10	JATOI	45.5	37	YAZMAN	15.9
11	ALI PUR	42.0	38	DUYAPUR	14.9
12	MAILSI	38.6	39	KALLOR KOT	13.8
13	TAUNSA	36.6	40	PIR MAHAL	9.7
14	KOT ADDU	35.0	41	BAHAWAL NAGAR	8.5
15	LODHRAN	34.8	42	JHANG	7.1
16	A.P.EAST	34.6	43	CHISHTIAN	6.8
17	BURE WALA	34.4	44	FORT ABBAS	6.0
18	CHOBARA	33.3	45	BHAKKAR	5.3
19	JAHANIAN	32.6	46	PAK PATTAN	5.0
20	KHANEWAL	31.7	47	MINCHAN ABAD	5.0
21	KOT CHUTTA	31.4	48	HAROON ABAD	4.4
22	LAYYAH	31.3	49	18-HAZARI	4.0
23	D.G.KHAN	30.9	50	A.P SIAL	3.4
24	BAHAWAL PUR	30.4	51	PIPLAN	3.2
25	T.T.SINGH	30.0	52	MIANWALI	2.7
26	R.Y.KHAN	28.0	53	SHORKOT	2.6
27	GOJRA	27.0	54	SUMUNDRI	1.9

FORECAST FOR THE NEXT WEEK

Meteorological data of the current week 2021-2022

Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature °C		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	35.7	26.3	61.8	6.4	39.0	31.3	71.0	0.0
Khanewal	37.1	27.7	74.4	1.5	39.9	29.6	63.3	0.0
Vehari	34.4	27.6	72.1	4.7	38.6	30.0	60.9	0.0
Lodhran	33.0	21.3	79.8	7.0	40.6	29.6	71.1	0.0
Sahiwal	34.5	26.7	78.5	28.0	38.0	28.0	67.0	0.0
Pakpattan	36.2	27.5	75.6	11.0	39.0	29.0	62.0	0.0
Okara	37.2	28.2	71.2	5.0	40.0	30.0	61.0	0.0
Bahawalpur	36.0	25.9	73.9	43.3	29.2	29.4	58.2	0.0
Bahawalnagar	35.3	26.0	75.1	8.3	40.1	30.0	55.9	0.0
R.Y.Khan	36.9	27.4	70.8	17.3	38.5	29.0	52.6	0.0
D.G. Khan	40.50	29.50	40.00	12.00	39.71	28.85	59.14	0.00
Muzaffar Garh	34.40	21.40	70.00	30.00	42.25	31.25	32.25	0.00
Rajanpur	36.8	28.6	57.45	17.00	39.90	30.24	41.87	0.00
Layyah	48.00	23.00	72.00	14.28	39.14	27.57	41.00	1.00
AVERAGE	36.86	26.22	69.48	205.73	38.85	29.56	56.95	1.00

Weather forecast for next 7 day in cotton zone

Division	Dated	25/7	26/7	27/7	28/7	29/7	30/7	31/7
Multan	Max.Temp.	31	34	48	39	32	30	33
	Min.Temp.	27	27	30	32	25	25	26
	Humidity %	77	68	54	47	79	47	40
Sahiwal	Max.Temp.	33	33	36	37	29	31	31
	Min.Temp.	27	28	28	30	26	25	27
	Humidity %	69	69	59	51	78	53	47
Bahawalpur	Max.Temp.	32	35	38	37	34	31	34
	Min.Temp.	26	28	29	32	25	24	26
	Humidity %	74	61	54	49	60	47	38
D.G. Khan	Max.Temp.	29	33	38	40	34	30	32
	Min.Temp.	26	27	29	32	24	24	25
	Humidity %	82	68	56	46	61	49	43
Average Cotton Region	Max.Temp.	34.07						
	Min.Temp.	27.14						
	Humidity %	58.07						

Summary of weather forecast

Overall weather for seven days in cotton zone during next week will remain moderate, Sunny & Rainy also.

Forecast of Sucking Pests:

Whitefly: This pest flourishes best in hot dry climate with optimum temperature 35-42 °C with relative humidity below 50%. Maximum lethal temperature for this pest is 45-51 °C. The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%. Keeping in view above all, it is predicted that population of this pest can increase from this week due to rainfall during the coming week.

Jassid: This pest flourishes best in hot and humid climate with optimum temperature 35-40 °C with relative humidity above 70%. Maximum lethal temperature for this pest is 45-51 °C. The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp.

Max. 34.07 °C, Min. 27.14°C with humidity 58.07%. Keeping in view above all, it is predicted that population of this pest may increase during the coming week.

Thrips: This pest flourishes best in hot dry climate with optimum temperature 35-40 °C with relative humidity below 60%. Maximum lethal temperature for this pest is 45-51 °C. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%.Keeping in view above all, it is predicted that population of this pest will increase during the coming week.

Mealy Bug: This pest flourishes best in moderate climate with optimum temperature 35-40 °C with relative humidity above 60-80%. Maximum lethal temperature for this pest is 45-51 °C. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%.Keeping in view above all, it is predicted that population of this pest will increase on cotton crop.

Mites: This pest flourishes best in dry climate with optimum temperature 28-40 °C with relative humidity above 40-50. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%.Keeping in view above all, it is predicted that population of this pest will sustain during the coming week.

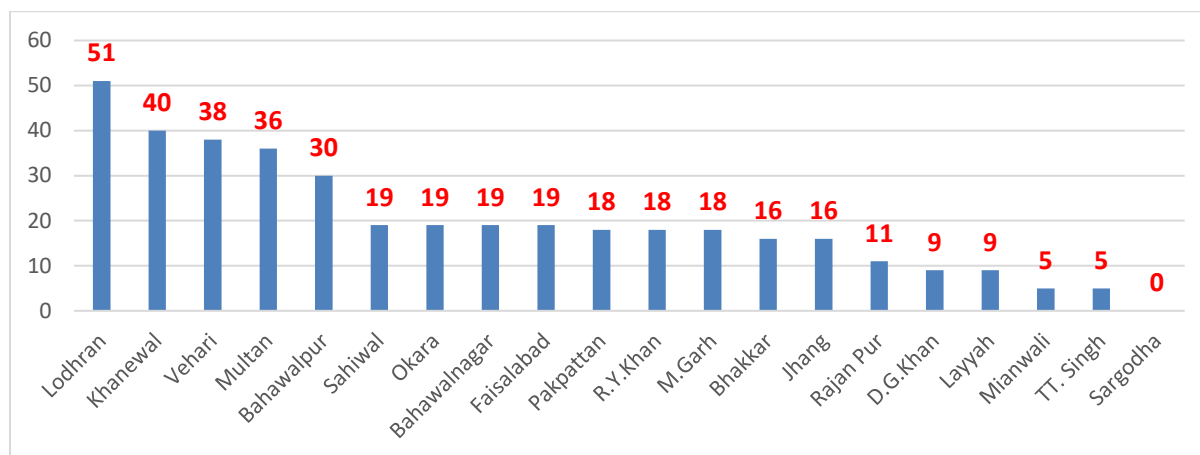
Dusky Cotton Bug: This pest flourishes best in moderate climate with optimum temperature 28-40 °C with relative humidity above 50-80%. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C

with humidity 58.07%. Keeping in view above all, it is predicted that population of this pest may sustain during coming week.

Pink Bollworm: This pest flourishes best at moderate climate with optimum temperature 32-40 °C with relative humidity above 60-80%. Maximum lethal temperature for this pest is 45-53 °C. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%. It is predicted that population of this pest will sustain on cotton crop.

Moth Catches in Pheromone Traps during 3rd Week of July, 2022

Moth Catches in Pheromone Traps During 3rd Week of July 2022			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	36	0.86
Khanewal	8	40	0.71
Vehari	6	38	0.90
Lodhran	6	51	1.21
Sahiwal	4	19	0.68
Pakpattan	4	18	0.64
Okara	4	19	0.68
Bahawalpur	8	30	0.54
Bahawalnagar	10	19	0.27
R.Y.Khan	8	18	0.32
D.G.Khan	6	9	0.21
M.Garh	8	18	0.32
Rajan Pur	6	11	0.26
Layyah	6	9	0.21
Sargodha	0	0	0.00
Mianwali	4	5	0.18
Bhakkar	8	16	0.29
Faisalabad	6	19	0.45
TT. Singh	6	5	0.12
Jhang	4	16	0.57
<i>Note. 3 moth catches on 3 consecutive nights in a trap is considered as ETL</i>			



American Bollworm: This pest flourishes best at dry & moderate climate with optimum temperature 32-40 °C with relative humidity above 50-70%. Maximum lethal temperature for this pest is 45-53 °C. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%.It is predicted that population of this pest will sustain on cotton crop during the coming week.

Moth catches on light traps during 3rd week of July, 2022

Moth Catches on Light Traps/Trap/week During 3rd Week of July, 2022				
District	Traps Installed	A.B.W	S.B.W	Armyworm
Multan	3	2.1	0.0	1.9
Khanewal	4	2.3	0.0	5.3
Vehari	3	0.6	0.1	1.1
Lodhran	3	2.4	0.0	2.6
Sahiwal	2	1.0	0.0	1.0
Pakpattan	2	0.7	0.0	0.7
Okara	3	0.9	0.0	0.9
Bahawalpur	4	1.6	0.7	1.7
Bahawalnagar	5	1.6	1.1	2.3
R.Y.Khan	4	0.3	0.4	0.4
D.G.Khan	3	0.0	0.1	0.4
M.Garh	4	0.6	0.6	0.6
Rajan Pur	3	1.3	0.7	3.3
Layyah	3	0.1	0	0.1
Note. 3 moth catches of a pest on 3 consecutive nights in a trap is considered as ETL				

Spotted Bollworm: This pest flourishes best at mild & humid climate with optimum temperature 30-40 °C with relative humidity above 60-100%. Maximum lethal temperature for this pest is 45-53 °C. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%.Due to cultivation of more BT varieties, it is predicted that population of this pest will remain as such on cotton crop in the coming week.

Armyworm: This pest flourishes best in mild & humid climate with optimum temperature 30-40 °C with relative humidity below 70-100%. . The current weather conditions on overall Punjab basis (temp. Max. 36.86 °C, Min. 26.22 °C with R. humidity 69.48%) & forecast for the next week temp. Max. 34.07 °C, Min. 27.14°C with humidity 58.07%.Keeping in view above all, it is predicted that population of this pest will sustain during the coming week.

CLCuV: The incidence of this disease is expected to increase on cotton crop to the next week.

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.

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 on each card which are available at AARI Faisalabad, Sahiwal, Okara and Vehari.
(Repeat this process after every two weeks).

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.

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	Mulberry
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 DUSKY COTTON BUG

1. Eradicate weeds.
2. Conduct Pest Scouting at least twice a week.
3. Remove alternate host plants

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.

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	0 (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	0 (On appearance)
Aphid	Spray on visible damage on top terminals.
Dusky Cotton bug	10 per leaf/bud