

PEST SITUATION ON COTTON CROP IN PUNJAB DURING 4th WEEK OF JULY, 2022

Whitefly: On overall Punjab basis 24.55 above ETL spots have been observed during current week as compared to 28.63% in last week and 18.32% during the same corresponding period of last year. And 74.28% below ETL spots have been observed during current week as compared to 70.24% in last week and 81.59% 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	MAILSI	53.6	33	LODHRAN	22.2
2	BURE WALA	52.5	34	SUMUNDRI	21.3
3	VEHARI	51.1	35	DUYAPUR	20.5
4	MIAN CHANNU	45.5	36	ALI PUR	20.0
5	MULTAN	44.8	37	BHAKKAR	20.0
6	PIR MAHAL	42.9	38	MANKERA	20.0
7	JALAL PUR P.W	42.2	39	SAHIWAL	18.4
8	JAHANIAN	40.0	40	KEHROR PACCA	17.8
9	FAISALABAD	40.0	41	T.T.SINGH	17.6
10	FORT ABBAS	38.0	42	OKARA	16.7
11	KHANEWAL	35.2	43	R.Y.KHAN	16.7
12	RENALA KHURD	35.0	44	TANDLIANWALA	16.7
13	RAJAN PUR	33.8	45	MUZUFAR GARH	16.0
14	KABIR WALA	33.8	46	SHORKOT	15.2
15	GOJRA	33.3	47	TAUNSA	15.1
16	CHISHTIAN	32.8	48	HASILPUR	14.6
17	PAK PATTAN	32.4	49	SADIQ ABAD	14.6
18	BAHAWAL NAGAR	29.7	50	ISA KHEL	14.3
19	MINCHAN ABAD	29.2	51	JHANG	12.5
20	BAHAWAL PUR	29.0	52	KOT ADDU	12.3
21	ARIF WALA	28.9	53	A.P SIAL	12.2
22	ROJHAN	28.6	54	18-HAZARI	12.0
23	D.G.KHAN	27.8	55	KALLOR KOT	12.0
24	CHICHA WATNI	27.5	56	A.P.EAST	11.1
25	SHUJABAD	26.8	57	JATOI	11.1
26	YAZMAN	25.6	58	KOT CHUTTA	10.3
27	HAROOON ABAD	25.5	59	MIANWALI	10.0
28	JARANWALA	25.0	60	LIAQUAT PUR	9.1
29	DARYA KHAN	25.0	61	CHOBARA	8.3
30	PIPLAN	24.1	62	DEPALPUR	7.7
31	KHAN PUR	22.9	63	LAYYAH	4.2
32	JAM PUR	22.9	64	KAROR L.E.	2.1

Jassid: On overall Punjab basis 19.69% above ETL spots has been observed as compared to 18.12% in last week and same week of last year 20.48%. And 77.79% below ETL spots have been observed during current week as compared to 80.23% in last week and 78.44% 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	DARYA KHAN	41.7	33	LODHRAN	20.0
2	VEHARI	37.8	34	18-HAZARI	20.0
3	BURE WALA	37.5	35	SADIQ ABAD	18.8
4	R.Y.KHAN	37.5	36	ARIF WALA	18.4
5	BHAKKAR	36.0	37	MUZUFAR GARH	18.0
6	JALAL PUR P.W	33.3	38	PIPLAN	17.2
7	CHISHTIAN	32.8	39	TANDLIANWALA	16.7
8	SHUJABAD	30.4	40	MIANWALI	16.7
9	FAISALABAD	30.0	41	BAHAWAL PUR	16.1
10	MANKERA	30.0	42	KALLOR KOT	16.0
11	PAK PATTAN	29.4	43	KOT ADDU	15.8
12	JATOI	28.9	44	DEPALPUR	15.4
13	MAILSI	28.6	45	CHICHA WATNI	15.0
14	MULTAN	28.4	46	KHANEWAL	14.8
15	MIAN CHANNU	27.3	47	CHOBARA	14.6
16	KHAN PUR	27.1	48	ROJHAN	14.3
17	SUMUNDRI	25.5	49	ISA KHEL	14.3
18	A.P.EAST	24.1	50	JARANWALA	12.5
19	ALI PUR	23.6	51	GOJRA	12.1
20	KOT CHUTTA	22.4	52	D.G.KHAN	11.1
21	KEHROR PACCA	22.2	53	HAROON ABAD	10.6
22	FORT ABBAS	22.0	54	KAROR L.E.	10.4
23	HASILPUR	22.0	55	JAHANIAN	10.0
24	LIAQUAT PUR	21.8	56	RAJAN PUR	7.7
25	YAZMAN	20.9	57	KABIR WALA	7.4
26	OKARA	20.8	58	MINCHAN ABAD	6.3
27	LAYYAH	20.8	59	JAM PUR	6.3
28	TAUNSA	20.8	60	A.P SIAL	6.1
29	T.T.SINGH	20.6	61	BAHAWAL NAGAR	5.4
30	DUYAPUR	20.5	62	SAHIWAL	5.3
31	PIR MAHAL	20.0	63	JHANG	4.2
32	RENALA KHURD	20.0	64	SHORKOT	3.0

Thrips: On overall Punjab basis 2.48% above ETL spots has been observed as compared to 4.07% in last week and same week of last year i.e. 13.43%. And 93.52% below ETL spots have been observed during current week as compared to 92.47% in last week and 84.41% 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	MULTAN	28.4	13	PIR MAHAL	2.9
2	JATOI	17.8	14	BAHAWAL NAGAR	2.7
3	R.Y.KHAN	14.6	15	HASILPUR	2.4
4	ROJHAN	14.3	16	KAROR L.E.	2.1
5	SHUJABAD	8.9	17	JAM PUR	2.1
6	BAHAWAL PUR	6.5	18	FORT ABBAS	2.0
7	KOT ADDU	5.3	19	MUZUFAR GARH	2.0
8	BURE WALA	5.0	20	ALI PUR	1.8
9	VEHARI	4.4	21	MAILSI	1.8
10	18-HAZARI	4.0	22	CHISHTIAN	1.6
11	PIPLAN	3.4	23	RAJAN PUR	1.5
12	MIANWALI	3.3			

Mealy Bug: On overall Punjab basis 5.61% spots (all considered above ETL) of Mealy Bug have been observed as compared to 5.36% in last week and 12.96% 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	31.1	21	18-HAZARI	4.0
2	CHISHTIAN	21.9	22	D.G.KHAN	3.7
3	SHUJABAD	21.4	23	PIPLAN	3.4
4	HAROON ABAD	21.3	24	MIANWALI	3.3
5	DUYAPUR	18.2	25	RAJAN PUR	3.1
6	CHICHA WATNI	17.5	26	GOJRA	3.0
7	MULTAN	16.4	27	PAK PATTAN	2.9
8	BAHAWAL PUR	16.1	28	KABIR WALA	2.9
9	LAYYAH	12.5	29	PIR MAHAL	2.9
10	FORT ABBAS	12.0	30	BAHAWAL NAGAR	2.7
11	R.Y.KHAN	10.4	31	SAHIWAL	2.6
12	KHAN PUR	10.4	32	BURE WALA	2.5
13	VEHARI	6.7	33	JAHANIAN	2.5
14	LODHRAN	6.7	34	YAZMAN	2.3
15	MAILSI	5.4	35	MUZUFAR GARH	2.0
16	HASILPUR	4.9	36	A.P.EAST	1.9
17	MIAN CHANNU	4.5	37	KHANEWAL	1.9
18	KAROR L.E.	4.2	38	ALI PUR	1.8
19	OKARA	4.2	39	LIAQUAT PUR	1.8
20	CHOBARA	4.2	40	KOT CHUTTA	1.7

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 0.87% below ETL spots have been observed during current week as compared to 1.01% in last week and 2.87% during the same corresponding period of last year.

Tehsil wise percentage of hot spots of Mites

No hot spot found in this week.

Dusky Cotton Bug: On overall Punjab basis 0.49% above ETL spots have been observed during current week as compared to 0.40% in last week and 0.00% during the same corresponding period of last year. And 26.77% below ETL spots have been observed during current week as compared to 24.57% in last week and 11.27% 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	9.0	3	RENALA KHURD	5.0
2	SHUJABAD	8.9	4	BAHAWAL PUR	1.6

Armyworm: On overall Punjab basis 0.60% spots (all considered above ETL) of Armyworm have been observed as compared to 0.28% in last week and 0.47% 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	BHAKKAR	8.0	5	BAHAWAL PUR	3.2
2	MULTAN	7.5	6	JAHANIAN	2.5
3	R.Y.KHAN	4.2	7	KAROR L.E.	2.1
4	FORT ABBAS	4.0	8	SHUJABAD	1.8

Pink Boll Worm: On overall Punjab basis 0.11% above ETL spots have been observed as compared to 0.16% in last week and 1.08% same corresponding period of the last year. And 5.46% below ETL spots have been observed as compared to 5.32% in last week and 15.88% 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	2.3	3	BAHAWAL PUR	1.6
2	KEHROR PACCA	2.2			

American 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. And 0.26% below ETL spots have been observed as compared to 0.52% in last week and 0.28% during same corresponding period of last year.

Tehsil wise percentage of hot spots of ABW

No hot spot found in this week.

Spotted Bollworm: On overall Punjab basis 0.04% above ETL spots have been observed as compared to 0.00% in last week and 0.19% during same corresponding period of last year & 0.15% below ETL spots have been observed as compared to 0.08% in last week and 0.28% during same corresponding period of last year.

Tehsil wise percentage of hot spots of SBW

S. NO.	TEHSIL	%AGE
1	R.Y.KHAN	2.1

CLCuV: On overall Punjab basis 31.66% spots (all considered above ETL) of CLCuV have been observed as compared to 27.35% in last week and 9.82% 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	JALAL PUR P.W	88.9	29	KOT CHUTTA	31.0
2	MULTAN	83.6	30	MANKERA	30.0
3	VEHARI	82.2	31	D.G.KHAN	29.6
4	SHUJABAD	73.2	32	KHANEWAL	29.6
5	JATOI	66.7	33	KEHROR PACCA	28.9
6	BURE WALA	55.0	34	ISA KHEL	28.6
7	LAYYAH	50.0	35	JAHANIAN	27.5
8	MUZUFAR GARH	50.0	36	A.P.EAST	25.9
9	ROJHAN	50.0	37	MIAN CHANNU	25.0
10	SADIQ ABAD	47.9	38	PAK PATTAN	23.5
11	ALI PUR	47.3	39	BHAKKAR	20.0
12	RAJAN PUR	46.2	40	FORT ABBAS	20.0
13	DUYAPUR	43.2	41	PIR MAHAL	20.0
14	MAILSI	42.9	42	KOT ADDU	19.3
15	GOJRA	42.4	43	HAROON ABAD	17.0
16	R.Y.KHAN	41.7	44	MIANWALI	16.7
17	T.T.SINGH	41.2	45	BAHAWAL NAGAR	13.5
18	BAHAWAL PUR	40.3	46	JAM PUR	12.5
19	LIAQUAT PUR	40.0	47	PIPLAN	10.3
20	LODHRAN	37.8	48	KALLOR KOT	8.0
21	YAZMAN	37.2	49	MINCHAN ABAD	6.3
22	KABIR WALA	36.8	50	ARIF WALA	5.3
23	KHAN PUR	35.4	51	RENALA KHURD	5.0
24	CHOBARA	35.4	52	FAISALABAD	5.0
25	TAUNSA	34.0	53	18-HAZARI	4.0
26	HASILPUR	31.7	54	SHORKOT	3.0
27	KAROR L.E.	31.3	55	A.P SIAL	2.0
28	CHISHTIAN	31.3			

FORECAST FOR THE NEXT WEEK

Meteorological data of the current week 2021-2022

Districts	2021				2020			
	Temperature °C		R.H%	Rainfall (mm)	Temperature °C		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	34.9	26.4	77.4	8.8	39.5	31.0	70.1	0.0
Khanewal	31.9	26.9	78.5	3.4	39.3	29.9	61.9	0.0
Vehari	33.4	26.9	83.1	8.1	38.0	30.6	62.7	0.0
Lodhran	31.7	24.4	80.4	13.4	40.4	29.7	70.1	0.0
Sahiwal	35.0	25.0	88.0	46.8	36.0	29.0	73.0	0.0
Pakpattan	34.6	26.2	86.0	35.5	37.0	30.0	71.0	0.0
Okara	36.2	26.4	85.5	35.3	35.0	28.0	71.0	0.0
Bahawalpur	34.8	25.8	86.6	135.3	39.7	29.3	58.8	Traces
Bahawalnagar	35.3	28.5	69.4	53.0	40.6	29.4	57.2	0.0
R.Y.Khan	32.0	26.0	75.7	39.6	39.6	29.7	50.3	0.0
D.G. Khan	34.0	27.4	74.5	28.1	41.4	30.2	59.6	0.0
Muzaffar Garh	34.4	21.4	70.0	30.0	42.2	31.2	32.2	0.0
Rajanpur	33	27.6	61.8	30.0	40.6	30.2	53.4	0.0
Layyah	44.00	20.00	89.0	81.3	45.7	30.8	57.1	24.0
TOT/AVG	34.66	25.64	78.99	548.64	39.64	29.95	60.61	24.00

Weather forecast for next 7 day in cotton zone

Division	Dated	1/8	2/8	3/8	4/8	5/8	6/8	7/8
Multan	Max.Temp.	33	36	36	37	37	41	40
	Min.Temp.	28	29	29	29	30	30	33
	Humidity %	66	54	53	47	50	40	40
Sahiwal	Max.Temp.	32	34	35	36	34	39	39
	Min.Temp.	26	28	28	27	28	28	29
	Humidity %	67	60	55	58	59	45	47
Bahawalpur	Max.Temp.	34	37	37	36	38	40	39
	Min.Temp.	28	29	30	29	29	30	32
	Humidity %	60	49	52	55	44	41	43
D.G. Khan	Max.Temp.	34	37	36	37	38	42	40
	Min.Temp.	27	29	30	29	29	30	33
	Humidity %	57	48	56	50	44	39	40
Average Cotton Region	Max.Temp.	36.93						
	Min.Temp.	29.14						
	Humidity %	50.68						

Summary of weather forecast

Overall weather for seven days in cotton zone during next week will remain moderate, Cloudy & 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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. Keeping in view above all, it is predicted that population of this pest can decrease 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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp.

Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. 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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. Keeping in view above all, it is predicted that population of this pest can decrease 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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. 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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. Keeping in view above all, it is predicted that population of this pest will sustain during the coming week.

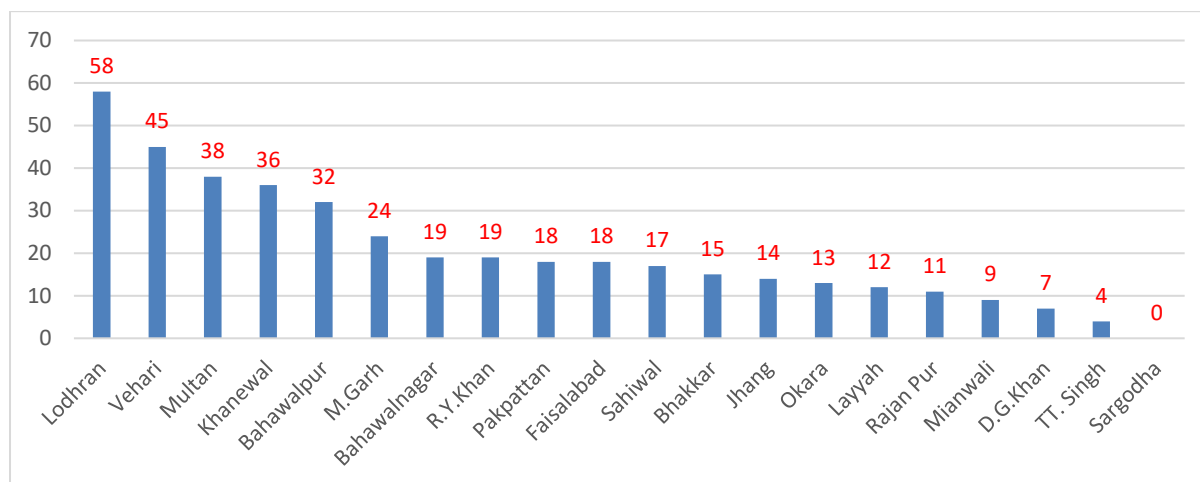
Dusky Cotton Bug: This pest flourishes best in moderate climate with optimum temperature 28-40 °C with relative humidity above 50-80%. The current weather conditions on overall Punjab basis (temp. Max. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C

with humidity 50.68%. 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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. It is predicted that population of this pest will sustain on cotton crop.

Moth Catches in Pheromone Traps during 4rth Week of July, 2022

Moth Catches in Pheromone Traps During 4rth Week of July 2022			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	38	0.90
Khanewal	8	36	0.64
Vehari	6	45	1.07
Lodhran	6	58	1.38
Sahiwal	4	17	0.61
Pakpattan	4	18	0.64
Okara	4	13	0.46
Bahawalpur	8	32	0.57
Bahawalnagar	10	19	0.27
R.Y.Khan	8	19	0.34
D.G.Khan	6	7	0.17
M.Garh	8	24	0.43
Rajan Pur	6	11	0.26
Layyah	6	12	0.29
Sargodha	0	0	0.00
Mianwali	4	9	0.32
Bhakkar	8	15	0.27
Faisalabad	6	18	0.43
TT. Singh	6	4	0.10
Jhang	4	14	0.50
<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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%.It is predicted that population of this pest will sustain on cotton crop during the coming week

Moth catches on light traps during 4rth week of July, 2022

Moth Catches on Light Traps/Trap/week During 4rth Week of July, 2022				
District	Traps Installed	A.B.W	S.B.W	Armyworm
Multan	3	2.0	0.0	1.4
Khanewal	4	1.7	0.0	5.0
Vehari	3	0.1	0.0	1.6
Lodhran	3	3.4	0.0	4.1
Sahiwal	2	1.1	0.0	1.1
Pakpattan	2	0.9	0.0	0.9
Okara	3	1.0	0.0	1.0
Bahawalpur	4	1.2	1.0	2.1
Bahawalnagar	5	1.2	1.2	2.7
R.Y.Khan	4	0.3	0.3	0.6
D.G.Khan	3	0.1	0.6	0.6
M.Garh	4	0.3	0.3	0.4
Rajan Pur	3	2.3	1.4	4.1
Layyah	3	0.0	0.0	0.0

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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. 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. 34.66 °C, Min. 25.64 °C with R. humidity 78.99%) & forecast for the next week temp. Max. 36.93 °C, Min. 29.14°C with humidity 50.68%. 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