

PEST SITUATION ON COTTON CROP IN PUNJAB DURING 2nd WEEK OF SEPTEMBER, 2022

Whitefly: On overall Punjab basis 29.70 above ETL spots have been observed during current week as compared to 34.54% in last week and 43.81% during the same corresponding period of last year. And 69.57% below ETL spots have been observed during current week as compared to 64.70% in last week and 55.94% 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	KOT CHUTTA	84.1	31	ARIF WALA	26.9
2	JALAL PUR P.W	70.2	32	KEHROR PACCA	26.7
3	MULTAN	59.2	33	JATOI	26.4
4	BAHAWAL PUR	54.5	34	JAHANIAN	23.9
5	D.G.KHAN	54.2	35	KOT ADDU	23.2
6	SHUJABAD	51.0	36	LAYYAH	21.4
7	TAUNSA	49.0	37	KAROR L.E.	20.8
8	RAJAN PUR	45.5	38	BURE WALA	20.0
9	LIAQUAT PUR	45.3	39	CHOBARA	18.8
10	ROJHAN	45.0	40	MIANWALI	18.8
11	A.P.EAST	42.6	41	CHICHA WATNI	17.5
12	R.Y.KHAN	41.7	42	18-HAZARI	16.0
13	KHAN PUR	41.7	43	PIPLAN	15.6
14	JAM PUR	41.7	44	VEHARI	15.2
15	FORT ABBAS	41.5	45	RENALA KHURD	15.0
16	SADIQ ABAD	40.0	46	SHORKOT	13.5
17	ALI PUR	38.6	47	ISA KHEL	12.5
18	MUZUFAR GARH	38.3	48	PAK PATTAN	12.0
19	CHISHTIAN	37.7	49	A.P SIAL	11.8
20	MIAN CHANNU	34.9	50	DUYAPUR	10.9
21	BAHAWAL NAGAR	32.5	51	JHANG	9.5
22	KHANEWAL	31.9	52	DARYA KHAN	8.3
23	BHAKKAR	31.8	53	DEPALPUR	7.1
24	HASILPUR	31.4	54	MANKERA	6.1
25	YAZMAN	30.4	55	T.T.SINGH	6.0
26	HAROON ABAD	30.0	56	SAHIWAL	5.0
27	KABIR WALA	27.8	57	KALLOR KOT	4.0
28	LODHRAN	27.7	58	PIR MAHAL	3.4
29	MAILSI	27.5	59	SUMUNDRI	1.8
30	MINCHAN ABAD	27.5	60	TANDLIANWALA	1.8

Jassid: On overall Punjab basis 11.77% above ETL spots has been observed as compared to 15.62% in last week and same week of last year 5.96%. And 86.31% below ETL spots have been observed during current week as compared to 82.98% in last week and 93.59% 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	TAUNSA	31.4	29	DARYA KHAN	12.5
2	FORT ABBAS	29.3	30	SAHIWAL	12.5
3	BHAKKAR	27.3	31	LIAQUAT PUR	11.3
4	ALI PUR	26.3	32	JATOI	11.3
5	RAJAN PUR	25.0	33	SHORKOT	10.8
6	CHICHA WATNI	25.0	34	TANDLIANWALA	10.5
7	LAYYAH	23.2	35	KHAN PUR	10.4
8	ARIF WALA	23.1	36	RENALA KHURD	10.0
9	BAHAWAL NAGAR	22.5	37	MANKERA	9.1
10	KAROR L.E.	20.8	38	SUMUNDRI	9.1
11	CHISHTIAN	20.8	39	R.Y.KHAN	8.3
12	18-HAZARI	20.0	40	JAM PUR	8.3
13	PAK PATTAN	20.0	41	SHUJABAD	8.2
14	T.T.SINGH	20.0	42	GOJRA	8.1
15	OKARA	19.0	43	SADIQ ABAD	8.0
16	MAILSI	17.5	44	KALLOR KOT	8.0
17	MINCHAN ABAD	17.5	45	DEPALPUR	7.1
18	D.G.KHAN	16.7	46	MULTAN	7.0
19	KOT ADDU	16.1	47	A.P SIAL	5.9
20	PIPLAN	15.6	48	BAHAWAL PUR	5.5
21	VEHARI	15.2	49	ROJHAN	5.0
22	BURE WALA	15.0	50	JHANG	4.8
23	MUZUFAR GARH	14.9	51	HASILPUR	3.9
24	CHOBARA	14.6	52	PIR MAHAL	3.4
25	KEHROR PACCA	13.3	53	MIAN CHANNU	2.3
26	HAROON ABAD	12.5	54	JAHANIAN	2.2
27	MIANWALI	12.5	55	JALAL PUR P.W	2.1
28	ISA KHEL	12.5	56	KABIR WALA	1.9

Thrips: On overall Punjab basis 0.19% above ETL spots has been observed as compared to 0.61% in last week and same week of last year i.e. 0.58%. And 85.28% below ETL spots have been observed during current week as compared to 82.94% in last week and 94.82% 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	7.5	2	SHUJABAD	2.0

Mealy Bug: On overall Punjab basis 12.69% spots (all considered above ETL) of Mealy Bug have been observed as compared to 11.82% in last week and 42.58% 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	BAHAWAL PUR	52.7	25	KHAN PUR	12.5
2	JALAL PUR P.W	46.8	26	ROJHAN	10.0
3	MULTAN	39.4	27	JATOI	9.4
4	SHUJABAD	38.8	28	PIPLAN	9.4
5	ALI PUR	36.8	29	KEHROR PACCA	8.9
6	FORT ABBAS	34.1	30	18-HAZARI	8.0
7	YAZMAN	26.8	31	PAK PATTAN	8.0

8	D.G.KHAN	25.0	32	ARIF WALA	7.7
9	A.P.EAST	21.3	33	MIAN CHANNU	7.0
10	CHISHTIAN	20.8	34	MIANWALI	6.3
11	HAROON ABAD	20.0	35	TAUNSA	5.9
12	LAYYAH	19.6	36	LIAQUAT PUR	5.7
13	T.T.SINGH	18.0	37	MAILSI	5.0
14	MINCHAN ABAD	17.5	38	RENALA KHURD	5.0
15	JAM PUR	16.7	39	MUZUFAR GARH	4.3
16	RAJAN PUR	15.9	40	LODHRAN	4.3
17	BAHAWAL NAGAR	15.0	41	CHOBARA	4.2
18	KOT CHUTTA	14.3	42	KALLOR KOT	4.0
19	SADIQ ABAD	14.0	43	GOJRA	2.7
20	PIR MAHAL	13.8	44	JAHANIAN	2.2
21	HASILPUR	13.7	45	KHANEWAL	2.1
22	DUYAPUR	13.0	46	R.Y.KHAN	2.1
23	KAROR L.E.	12.5	47	KABIR WALA	1.9
24	ISA KHEL	12.5			

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 2.18% below ETL spots have been observed during current week as compared to 1.82% in last week and 3.04% 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 3.44% above ETL spots have been observed during current week as compared to 2.36% in last week and 0.00% during the same corresponding period of last year. And 57.99% below ETL spots have been observed during current week as compared to 55.55% in last week and 38.35% 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	T.T.SINGH	28.0	11	JALAL PUR P.W	6.4
2	BAHAWAL PUR	27.3	12	KABIR WALA	5.6
3	MULTAN	22.5	13	MAILSI	5.0
4	GOJRA	13.5	14	A.P.EAST	4.9
5	PIR MAHAL	10.3	15	KEHROR PACCA	4.4
6	SHUJABAD	10.2	16	MUZUFAR GARH	4.3
7	VEHARI	8.7	17	HASILPUR	3.9
8	KHANEWAL	8.5	18	MIAN CHANNU	2.3
9	KALLOR KOT	8.0	19	DUYAPUR	2.2
10	JAHANIAN	6.5			

Armyworm: On overall Punjab basis 6.50% spots (all considered above ETL) of Armyworm have been observed as compared to 9.31% in last week and 2.88% 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	BAHAWAL PUR	34.5	21	LIAQUAT PUR	7.5
2	MULTAN	25.4	22	ALI PUR	7.0
3	FORT ABBAS	22.0	23	JALAL PUR P.W	6.4
4	D.G.KHAN	16.7	24	KAROR L.E.	6.3
5	KHAN PUR	16.7	25	PIPLAN	6.3
6	KEHROR PACCA	13.3	26	MIANWALI	6.3
7	LODHRAN	12.8	27	R.Y.KHAN	6.3
8	ISA KHEL	12.5	28	JATOI	5.7
9	SADIQ ABAD	12.0	29	BHAKKAR	4.5
10	A.P.EAST	11.5	30	CHOBARA	4.2
11	KABIR WALA	11.1	31	YAZMAN	3.6
12	LAYYAH	10.7	32	SHORKOT	2.7
13	MUZUFAR GARH	10.6	33	RAJAN PUR	2.3
14	JAM PUR	10.4	34	JAHANIAN	2.2
15	MINCHAN ABAD	10.0	35	DUYAPUR	2.2
16	SHUJABAD	8.2	36	KHANEWAL	2.1
17	18-HAZARI	8.0	37	CHISHTIAN	1.9
18	KOT CHUTTA	7.9	38	KOT ADDU	1.8
19	HASILPUR	7.8	39	KALLOR KOT	1.2
20	TAUNSA	7.8			

Pink Boll Worm: On overall Punjab basis 14.03% above ETL spots have been observed as compared to 10.79% in last week and 13.81% same corresponding period of the last year. And 32.95% below ETL spots have been observed as compared to 25.87% in last week and 40.28% 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	50.0	26	MIANWALI	12.5
2	BAHAWAL PUR	36.4	27	CHOBARA	12.5
3	ROJHAN	35.0	28	MANKERA	12.1
4	HASILPUR	33.3	29	KALLOR KOT	12.0
5	MULTAN	31.0	30	JAM PUR	10.4
6	R.Y.KHAN	29.2	31	MAILSI	10.0
7	SHUJABAD	28.6	32	CHISHTIAN	9.4
8	KHANEWAL	27.7	33	RAJAN PUR	9.1
9	ALI PUR	26.3	34	MUZUFAR GARH	8.5
10	LODHRAN	25.5	35	TAUNSA	7.8
11	JALAL PUR P.W	25.5	36	BAHAWAL NAGAR	7.5
12	KEHROR PACCA	24.4	37	FORT ABBAS	7.3
13	SADIQ ABAD	24.0	38	KOT ADDU	7.1
14	KHAN PUR	22.9	39	MIAN CHANNU	7.0
15	LIAQUAT PUR	22.6	40	VEHARI	6.5
16	JAHANIAN	21.7	41	KOT CHUTTA	6.3
17	YAZMAN	21.4	42	KAROR L.E.	6.3
18	D.G.KHAN	20.8	43	HAROOON ABAD	5.0
19	BHAKKAR	18.2	44	SAHIWAL	5.0

20	JATOI	17.0	45	T.T.SINGH	4.0
21	KABIR WALA	16.7	46	ARIF WALA	3.8
22	LAYYAH	16.1	47	PIR MAHAL	3.4
23	A.P.EAST	13.1	48	MINCHAN ABAD	2.5
24	ISA KHEL	12.5	49	BURE WALA	2.5
25	PIPLAN	12.5			

American Bollworm: On overall Punjab basis 0.08% above ETL spots have been observed as compared to 0.11 in last week and 0.08% during same corresponding period of last year. And 1.64% below ETL spots have been observed as compared to 1.44% in last week and 0.58% during same corresponding period of last year.

Tehsil wise percentage of hot spots of ABW

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	D.G.KHAN	2.1	2	KOT CHUTTA	1.6

Spotted Bollworm: On overall Punjab basis 0.15% above ETL spots have been observed as compared to 0.30% in last week and 0.19% during same corresponding period of last year & 0.88% below ETL spots have been observed as compared to 0.84% in last week and 1.93% during same corresponding period of last year.

Tehsil wise percentage of hot spots of SBW

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	KOT CHUTTA	3.2	3	R.Y.KHAN	2.1
2	D.G.KHAN	2.1			

CLCuV: On overall Punjab basis 40.29% spots (all considered above ETL) of CLCuV have been observed as compared to 40.27% in last week and 28.07% 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	100.0	31	KHANEWAL	36.2
2	KOT CHUTTA	98.4	32	LIAQUAT PUR	35.8
3	JALAL PUR P.W	93.6	33	CHISHTIAN	35.8
4	HASILPUR	76.5	34	LAYYAH	33.9
5	VEHARI	73.9	35	DUYAPUR	32.6
6	TAUNSA	72.5	36	JATOI	32.1
7	SHUJABAD	71.4	37	KEHROR PACCA	31.1
8	D.G.KHAN	68.8	38	MIANWALI	28.1
9	KABIR WALA	68.5	39	JAM PUR	27.1
10	BHAKKAR	68.2	40	ISA KHEL	25.0
11	MAILSI	57.5	41	PIPLAN	25.0
12	FORT ABBAS	53.7	42	HAROON ABAD	25.0
13	BAHAWAL PUR	50.9	43	PIR MAHAL	24.1
14	CHOBARA	50.0	44	JAHANIAN	23.9
15	KAROR L.E.	47.9	45	BAHAWAL NAGAR	22.5
16	T.T.SINGH	46.0	46	CHICHA WATNI	22.5
17	MANKERA	45.5	47	MINCHAN ABAD	20.0
18	RAJAN PUR	45.5	48	PAK PATTAN	20.0

19	BURE WALA	45.0	49	KOT ADDU	17.9
20	LODHRAN	44.7	50	YAZMAN	16.1
21	MUZUFAR GARH	44.7	51	ARIF WALA	15.4
22	KHAN PUR	43.8	52	OKARA	14.3
23	ROJHAN	40.0	53	GOJRA	13.5
24	SADIQ ABAD	40.0	54	SAHIWAL	12.5
25	KALLOR KOT	40.0	55	18-HAZARI	12.0
26	A.P.EAST	39.3	56	A.P SIAL	11.8
27	ALI PUR	38.6	57	RENALA KHURD	10.0
28	R.Y.KHAN	37.5	58	SUMUNDRI	3.6
29	DARYA KHAN	37.5	59	TANDLIANWALA	3.5
30	MIAN CHANNU	37.2	60	SHORKOT	2.7

FORECAST FOR THE NEXT WEEK

Meteorological data of the current week 2021-2022

Districts	2022				2021			
	Temperature °C		R.H%	Rainfall (mm)	Temperature °C		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	38.9	25.9	69.2	0.6	35.7	28.9	65.0	0.0
Khanewal	36.6	27.4	72.4	0.8	36.6	26.9	69.8	5.0
Vehari	38.7	26.0	66.4	0.0	37.3	28.7	71.8	0.0
Lodhran	37.4	24.5	77.4	0.0	31.5	21.5	78.5	15.0
Sahiwal	35.9	25.5	74.3	44.0	35.0	25.0	77.0	13.0
Pakpattan	35.4	26.2	72.6	6.0	36.0	26.0	74.0	5.0
Okara	35.6	27.1	73.2	20.2	35.0	26.0	78.0	15.0
Bahawalpur	37.2	25.9	71.5	29.0	38.1	27.1	68.2	0.0
Bahawalnagar	38.3	26.5	72.3	8.0	37.0	26.3	62.6	4.0
R.Y.Khan	38.0	25.7	60.0	0.0	39.7	28.6	47.3	0.0
D.G. Khan	37.1	28.3	62.8	0.0	37.9	26.4	50.6	30.0
Muzaffar Garh	34.2	25.4	72.0	2.0	33.7	25.8	57.5	3.0
Rajapur	35.4	22.6	71.6	0.0	39.6	27.6	50.1	0.0
Layyah	32.0	25.0	80.0	2.0	33.4	25.4	51.8	0.0
AVERAGE	36.48	25.85	71.12	112.60	36.18	26.45	64.45	90.00

Weather forecast for next 7 day in cotton zone

Division	Dated	14/9	15/9	16/9	17/9	18/9	19/9	20/9
Multan	Max.Temp.	38	38	38	39	39	39	36
	Min.Temp.	27	27	28	26	26	26	26
	Humidity %	40	38	34	33	36	32	45
Sahiwal	Max.Temp.	35	36	37	38	38	37	34
	Min.Temp.	25	26	26	26	25	25	24
	Humidity %	52	46	42	44	40	38	52
Bahawalpur	Max.Temp.	36	38	38	38	38	38	36
	Min.Temp.	25	25	25	26	26	26	24
	Humidity %	52	46	42	44	40	38	52
D.G. Khan	Max.Temp.	36	38	38	38	38	38	36
	Min.Temp.	27	27	27	28	25	26	26
	Humidity %	49	42	36	35	39	33	47
Average Cotton Region	Max.Temp.	37.36						
	Min.Temp.	25.93						
	Humidity %	41.68						

Source: timeanddate.com

Summary of weather forecast

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

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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68%. Keeping in view above all, it is predicted that population of this pest will sustain from this 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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68%. Keeping in view above all, it is predicted that population of this pest may sustain 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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68% for the next week temp. Max. 38.18 °C, Min. 27.05°C with humidity 38.89%. Keeping in view above all, it is predicted that population of this pest will 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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68%. Keeping in view above all, it is predicted that population of this pest will sustain 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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68%. Keeping in view above all, it is predicted that population of this pest will sustain during the coming week.

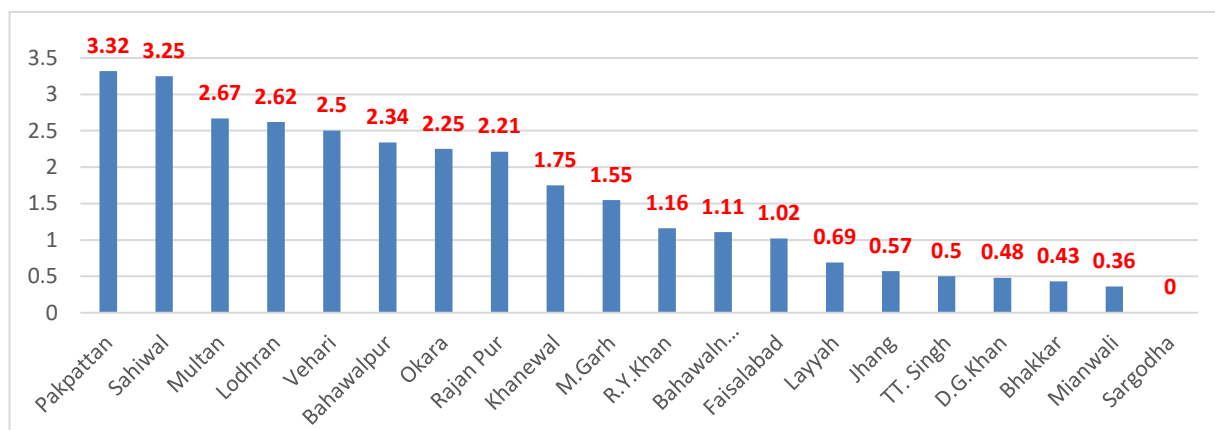
Dusky Cotton Bug: This pest flourishes best in moderate climate with optimum temperature 28-40 °C with relative humidity above 50-80%. The current weather conditions on overall Punjab basis (temp. Max. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68%. Keeping in view above all, it is predicted that population of this pest can increase 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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68%. It is predicted that population of this pest will increase on cotton crop.

Moth Catches in Pheromone Traps during 2nd Week of September, 2022

Moth Catches in Pheromone Traps During 2nd Week of September 2022			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	112	2.67
Khanelwal	8	98	1.75
Vehari	6	105	2.50
Lodhran	6	110	2.62
Sahiwal	4	91	3.25
Pakpattan	4	93	3.32
Okara	4	63	2.25
Bahawalpur	8	131	2.34
Bahawalnagar	10	78	1.11
R.Y.Khan	8	65	1.16
D.G.Khan	6	20	0.48
M.Garh	8	87	1.55
Rajan Pur	6	93	2.21
Layyah	6	29	0.69
Sargodha	0	0	0.00
Mianwali	4	10	0.36
Bhakkar	8	24	0.43
Faisalabad	6	43	1.02
TT. Singh	6	21	0.50
Jhang	4	16	0.57

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



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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C with humidity 41.68%. the next week temp. Max. 38.18 °C, Min. 27.05°C with humidity 38.89%. It is

predicted that population of this pest will sustain on cotton crop during the coming week.

Moth catches on light traps during 2nd week of September, 2022

Moth Catches on Light Traps/Trap/week During 2nd Week of September, 2022				
District	Traps Installed	A.B.W	S.B.W	Armyworm
Multan	3	1.7	0.0	3.3
Khanewal	4	1.2	0.0	8.7
Vehari	3	0.0	0.0	0.7
Lodhran	3	3.7	0.0	5.6
Sahiwal	2	2.0	0.0	2.1
Pakpattan	2	1.7	0.0	1.9
Okara	3	1.9	0.0	2.1
Bahawalpur	4	1.3	1.0	4.4
Bahawalnagar	5	1.1	0.7	1.7
R.Y.Khan	4	0.6	0.6	0.9
D.G.Khan	3	1.6	1.9	4.3
M.Garh	4	0.6	0.7	0.9
Rajan Pur	3	1.0	0.7	0.9
Layyah	3	0.0	0.0	1.3
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. 35.43 °C, Min. 25.85 °C with R. humidity 71.68%) & forecast for the next week temp. Max. 38.18 °C, Min. 27.05°C with humidity 38.89%. 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. 36.48 °C, Min. 25.85 °C with R. humidity 71.12%) & forecast for the next week temp. Max. 37.36 °C, Min. 25.93°C

with humidity 41.68%. Keeping in view above all, it is predicted that population of this pest will increase 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

Pesticides recommended for mealy bug

S#	Common Name	Brand Name	Dose/Acre
1	Dimethoate 40% + Diver (Mineral oil) 97%	Denadim, Progress, Casper	200 ml + 1000 ml
2	Profenofos50%+ Diver (Mineral oil) 97%	Curacron, Blast	200ml + 1000 ml
3	Chlorpyrifos 40 EC+ Diver (Mineral oil) 97%	Lorsban, Larvae	200ml+ 1000 ml
4	Profenofos 50EC		800 ml
5	Chlorpyrifos 40 EC		1000 ml
6	Carbosulfan 20EC	Advantage	500 ml
7	Methidathion 40 EC	Supracide	400 ml
8	Methomyl 42SP	Lannate	300 gm
9	Profenofos + Lambda 61.5 EC	Border	500 ml

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.

Pesticides recommended for army worm

S#	Common Name	Brand Name	Dose/Acre
1	Lufenuron 5 EC	Match, Drone, Catch, Rozol, Snatch, Track, Ardent	200 ml
2	Emamectin Benzoate 1.9%EC	Proclaim, Timer, Victory, Smash, Tycon, Wel Star, Wright, Rider	250 ml
3	Tebufenazide 20%WP	Falcon, Top Gun	350 gm
4	Flubendamide 480 SC	Belt	25-50 ml
5	Methoxyfenozide 240 SC	Runner	200 ml
6	Chlorantraniliprole 20 SC	Coragen	50 ml
7	Spintoram 120 SC	Radiant	100 ml

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
			Rattan jot
			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