

## PEST SITUATION ON COTTON CROP IN PUNJAB DURING 1st WEEK OF OCTOBER, 2021

**Whitefly:** On overall Punjab basis 37.96% above ETL spots have been observed during current week as compared to 46.48% in last week and 41.26% during the same corresponding period of last year. And 61.47% below ETL spots have been observed during current week as compared to 53.13% in last week and 55.72% 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	MULTAN	84.3	31	JAHANIAN	32.1
2	JALAL PUR P.W	84.1	31	LAYYAH	32.1
3	ALI PUR	78.0	33	DUYAPUR	30.3
4	SHUJABAD	68.4	34	DARYA KHAN	25.0
5	BAHAWAL PUR	65.9	35	FORT ABBAS	20.3
6	A.P.EAST	63.4	36	SHORKOT	20.0
7	KOT CHUTTA	63.3	37	CHOBARA	19.2
8	JATOI	62.9	38	RENALA KHURD	18.8
9	TAUNSA	60.4	39	KAROR L.E.	17.9
10	HASILPUR	60.0	40	KALLOR KOT	17.6
11	KOT ADDU	58.1	41	CHISHTIAN	16.0
12	R.Y.KHAN	57.7	42	PAK PATTAN	15.4
13	KHAN PUR	54.0	43	HAROON ABAD	15.0
14	D.G.KHAN	53.8	44	PIPLAN	14.3
15	VEHARI	53.1	45	BAHAWAL NAGAR	14.0
16	JAM PUR	53.1	46	MIANWALI	13.8
17	LIAQUAT PUR	52.0	47	DEPALPUR	12.5
18	MAILSI	50.0	48	A.P SIAL	12.0
19	BURE WALA	50.0	49	TANDLIANWALA	12.0
20	RAJAN PUR	50.0	50	MINCHAN ABAD	11.9
21	SADIQ ABAD	48.1	51	OKARA	11.8
22	MUZUFAR GARH	45.7	52	ARIF WALA	10.0
23	BHAKKAR	42.9	53	18-HAZARI	10.0
24	ROJHAN	41.7	54	JHANG	9.5
25	KABIR WALA	40.6	55	ISA KHEL	9.1
26	MIAN CHANNU	40.0	56	SUMUNDRI	8.3
27	YAZMAN	39.6	57	CHICHA WATNI	5.0
28	KHANEWAL	36.7	58	SAHIWAL	4.2
29	KEHROR PACCA	35.3	59	PIR MAHAL	4.2
30	LODHRAN	33.3			

**Jassid:** On overall Punjab basis 5.01% above ETL spots has been observed as compared to 5.74% in last week and same week of last year 5.99%. And 82.70% below ETL spots have been observed during current week as compared to 88.29% in last week and 83.46% 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	FAISALABAD	57.1	20	KABIR WALA	6.3
2	CHICHA WATNI	27.5	21	VEHARI	6.3
3	SHORKOT	25.0	22	MAILSI	6.3
4	DARYA KHAN	25.0	23	CHISHTIAN	6.0
5	A.P SIAL	24.0	24	ALI PUR	6.0
6	TANDLIANWALA	24.0	25	KALLOR KOT	5.9
7	T.T.SINGH	22.2	26	18-HAZARI	5.0
8	RENALA KHURD	18.8	27	PIPLAN	4.8
9	SAHIWAL	16.7	28	PIR MAHAL	4.2
10	PAK PATTAN	15.4	29	KHAN PUR	4.0
11	ARIF WALA	15.0	30	CHOBARA	3.8
12	JHANG	14.3	31	KAROR L.E.	3.6
13	BHAKKAR	14.3	32	MIANWALI	3.4
14	DEPALPUR	12.5	33	KEHROR PACCA	2.9
15	SUMUNDRI	12.5	34	JATOI	2.9
16	OKARA	11.8	35	SHUJABAD	2.6
17	LAYYAH	10.7	36	MINCHAN ABAD	2.4
18	GOJRA	10.0	37	TAUNSA	2.1
19	BURE WALA	8.3			

**Thrips:** On overall Punjab basis 0.10% above ETL spots has been observed as compared to 0.22% in last week same and week of last year i.e.0.22%. And 69.21% below ETL spots have been observed during current week as compared to 78.98% in last week and 73.91% 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	18-HAZARI	5.0	2	JHANG	4.8

**Mealy Bug:** On overall Punjab basis 39.05% spots (all considered above ETL) of Mealy Bug have been observed as compared to 44.69% in last week and 19.38% 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	MULTAN	92.2	31	JAM PUR	34.4
2	JALAL PUR P.W	81.8	32	FORT ABBAS	32.2
3	ALI PUR	78.0	33	CHOBARA	30.8
4	VEHARI	75.0	34	A.P.EAST	29.3
5	BURE WALA	75.0	35	SADIQ ABAD	28.8
6	BAHAWAL PUR	63.6	36	LAYYAH	28.6
7	KHANEWAL	63.3	37	R.Y.KHAN	26.9
8	TAUNSA	58.3	38	CHICHA WATNI	25.0
9	KHAN PUR	58.0	39	ARIF WALA	25.0
10	HASILPUR	57.5	40	RENALA KHURD	25.0
11	MAILSI	56.3	41	DEPALPUR	25.0
12	SHUJABAD	55.3	42	KAROR L.E.	25.0
13	MIAN CHANNU	54.3	43	PAK PATTAN	23.1
14	ROJHAN	54.2	44	T.T.SINGH	22.2
15	JAHANIAN	53.6	45	MINCHAN ABAD	21.4
16	KABIR WALA	53.1	46	FAISALABAD	14.3
17	DUYAPUR	51.5	47	BHAKKAR	14.3
18	CHISHTIAN	50.0	48	MIANWALI	13.8

19	D.G.KHAN	46.2	49	KOT ADDU	12.9
20	LODHRAN	45.5	50	JATOI	11.4
21	SAHIWAL	41.7	51	SHORKOT	10.0
22	RAJAN PUR	41.7	52	GOJRA	10.0
23	OKARA	41.2	53	PIPLAN	9.5
24	YAZMAN	39.6	54	ISA KHEL	9.1
25	HAROOON ABAD	37.5	55	TANDLIANWALA	8.0
26	BAHAWAL NAGAR	37.2	56	KALLOR KOT	5.9
27	MUZUFAR GARH	37.1	57	JHANG	4.8
28	KOT CHUTTA	36.7	58	PIR MAHAL	4.2
29	LIAQUAT PUR	36.0	59	SUMUNDRI	4.2
30	KEHROR PACCA	35.3			

**Mites:** No prevalence of above ETL has been observed. However 2.38% below ETL spots have been observed during current week as compared to 2.31% in last week and 0.25% during the same corresponding period of last year.

**Dusky Cotton Bug:** On overall Punjab basis 7.18% above ETL spots have been observed during current week as compared to 3.96% in last week and 2.15% during the same corresponding period of last year. And 58.32% below ETL spots have been observed during current week as compared to 52.87% in last week and 32.47% during the same corresponding period of last year.

#### **Tehsil wise percentage of hot spots of Dusky cotton Bug**

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	BAHAWAL PUR	56.8	12	KOT ADDU	9.7
2	HASILPUR	45.0	13	JHANG	9.5
3	YAZMAN	33.3	14	MAILSI	9.4
4	MULTAN	21.6	15	LODHRAN	9.1
5	ALI PUR	20.0	16	BURE WALA	8.3
6	FORT ABBAS	18.6	17	T.T.SINGH	5.6
7	BAHAWAL NAGAR	18.6	18	SHUJABAD	5.3
8	VEHARI	12.5	19	MINCHAN ABAD	4.8
9	HAROOON ABAD	12.5	20	PIPLAN	4.8
10	KEHROR PACCA	11.8	21	MIANWALI	3.4
11	CHISHTIAN	10.0	22	DUYAPUR	3.0

**Armyworm:** On overall Punjab basis 1.96% spots (all considered above ETL) of Armyworm have been observed as compared to 2.26% in last week and 5.35% 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	20.5	12	PIPLAN	4.8
2	BHAKKAR	14.3	13	JALAL PUR P.W	4.5
3	JHANG	9.5	14	SUMUNDRI	4.2
4	SAHIWAL	8.3	15	CHOBARA	3.8
5	KHANEWAL	6.7	16	MIANWALI	3.4
6	KOT ADDU	6.5	17	KABIR WALA	3.1
7	MAILSI	6.3	18	KEHROR PACCA	2.9
8	MULTAN	5.9	19	JATOI	2.9
9	HASILPUR	5.0	20	T.T.SINGH	2.8
10	18-HAZARI	5.0	21	CHICHA WATNI	2.5
11	SHORKOT	5.0			

**Pink Boll Worm:** On overall Punjab basis 32.28% above ETL spots have been observed as compared to 28.15% in last week and 12.52% same corresponding period of the last year. And 43.70% below ETL spots have been observed as compared to 43.12% in last week and 32.76% during same corresponding period of last year.

#### **Tehsil wise percentage of hot spots of PBW**

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	MINCHAN ABAD	59.5	32	ARIF WALA	20.0
2	BAHAWAL PUR	59.1	33	KOT CHUTTA	20.0
3	HAROON ABAD	55.0	34	D.G.KHAN	19.2
4	DUYAPUR	51.5	35	JHANG	19.0
5	VEHARI	50.0	36	CHICHA WATNI	17.5
6	MAILSI	50.0	37	T.T.SINGH	16.7
7	HASILPUR	50.0	38	TANDLIANWALA	16.0
8	BAHAWAL NAGAR	48.8	39	PAK PATTAN	15.4
9	CHISHTIAN	48.0	40	SHORKOT	15.0
10	KHAN PUR	48.0	41	GOJRA	15.0
11	LIAQUAT PUR	46.0	42	TAUNSA	14.6
12	BURE WALA	45.8	43	BHAKKAR	14.3
13	R.Y.KHAN	44.2	44	MIANWALI	13.8
14	KEHROR PACCA	44.1	45	RENALA KHURD	12.5
15	FORT ABBAS	44.1	46	RAJAN PUR	12.5
16	KABIR WALA	43.8	47	DARYA KHAN	12.5
17	SADIQ ABAD	42.3	48	A.P SIAL	12.0
18	JALAL PUR P.W	40.9	49	MULTAN	11.8
19	MIAN CHANNU	40.0	50	KALLOR KOT	11.8
20	SHUJABAD	39.5	51	MANKERA	11.1
21	A.P.EAST	39.0	52	ISA KHEL	9.1
22	ALI PUR	38.0	53	MUZUFAR GARH	8.6
23	KHANEWAL	36.7	54	ROJHAN	8.3
24	LODHRAN	36.4	55	PIR MAHAL	8.3
25	JAHANIAN	35.7	56	SUMUNDRI	8.3
26	YAZMAN	31.3	57	JAM PUR	6.3
27	LAYYAH	28.6	58	OKARA	5.9
28	KAROR L.E.	28.6	59	18-HAZARI	5.0
29	CHOBARA	26.9	60	PIPLAN	4.8
30	KOT ADDU	25.8	61	JATOI	2.9
31	SAHIWAL	20.8			

**American Bollworm:** On overall Punjab basis 0.10% above ETL spots have been observed as compared to 0.09 in last week and 0.00% during same corresponding period of last year. And 0.67% below ETL spots have been observed as compared to 0.61% in last week and 0.36% during same corresponding period of last year.

#### **Tehsil wise percentage of hot spots of ABW**

S. NO.	TEHSIL	%AGE
1	KOT CHUTTA	6.7

**Spotted Bollworm:** On overall Punjab basis 0.31% above ETL spots have been observed as compared to 0.52% in last week and 0.00% during same corresponding period of last year & 1.29% below ETL spots have been observed as compared to 1.57% in last week and 0.75% 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	10.0	3	YAZMAN	2.1
2	D.G.KHAN	7.7			

**CLCuV:** On overall Punjab basis 27.89% spots (all considered above ETL)of CLCV have been observed as compared to 29.85% in last week and 20.31% 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	ALI PUR	94.0	29	KALLOR KOT	23.5
2	KOT ADDU	93.5	30	PAK PATTAN	23.1
3	KABIR WALA	75.0	31	R.Y.KHAN	21.2
4	MAILSI	75.0	32	MIANWALI	20.7
5	FAISALABAD	71.4	33	KEHROR PACCA	20.6
6	BURE WALA	70.8	34	CHICHA WATNI	17.5
7	MULTAN	68.6	35	ARIF WALA	15.0
8	MUZUFAR GARH	65.7	36	A.P.EAST	14.6
9	VEHARI	65.6	37	BHAKKAR	14.3
10	TAUNSA	60.4	38	PIR MAHAL	12.5
11	KOT CHUTTA	53.3	39	BAHAWAL NAGAR	11.6
12	D.G.KHAN	46.2	40	18-HAZARI	10.0
13	MIAN CHANNU	45.7	41	SHORKOT	10.0
14	JALAL PUR P.W	45.5	42	BAHAWAL PUR	9.1
15	GOJRA	45.0	43	ISA KHEL	9.1
16	MANKERA	44.4	44	SAHIWAL	8.3
17	T.T.SINGH	38.9	45	KHAN PUR	8.0
18	LAYYAH	35.7	46	A.P.SIAL	8.0
19	JATOI	34.3	47	SADIQ ABAD	7.7
20	SHUJABAD	34.2	48	HASILPUR	7.5
21	KHANEWAL	33.3	49	HAROON ABAD	7.5
22	PIPLAN	33.3	50	FORT ABBAS	6.8
23	JAHANIAN	32.1	51	DUYAPUR	6.1
24	KAROR L.E.	32.1	52	CHISHTIAN	6.0
25	JHANG	28.6	53	SUMUNDRI	4.2
26	LIAQUAT PUR	28.0	54	TANDLIANWALA	4.0
27	CHOBARA	26.9	55	LODHRAN	3.0
28	DARYA KHAN	25.0	56	KALLOR KOT	23.5

**Wilting:** On overall Punjab basis during the current week 3.87% spots (all considered above ETL) of wilting have been observed as compared to 5.87% spots in the last week.

**Tehsil wise percentage of hot spots Wilting**

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	JATOI	45.7	12	MIAN CHANNU	5.7
2	ALI PUR	28.0	13	SHUJABAD	5.3
3	MULTAN	19.6	14	ARIF WALA	5.0
4	KOT ADDU	19.4	15	PIPLAN	4.8
5	KABIR WALA	9.4	16	JALAL PUR P.W	4.5
6	ROJHAN	8.3	17	BURE WALA	4.2
7	PAK PATTAN	7.7	18	RAJAN PUR	4.2
8	CHICHA WATNI	7.5	19	D.G.KHAN	3.8
9	JAHANIAN	7.1	20	LAYYAH	3.6
10	MIANWALI	6.9	21	VEHARI	3.1
11	KHANEWAL	6.7	22	MAILSI	3.1

**FORECAST FOR THE NEXT WEEK****Meteorological data of the current week 2020-2021**

Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature °C		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
MULTAN	36.00	27.71	69.79	0.00	35.86	21.86	71.21	0.00
KHANEWAL	36.29	27.43	64.57	0.00	36.51	21.50	61.14	0.00
VEHARI	35.00	28.00	66.57	1.00	36.27	22.57	63.71	0.00
LODHRAN	34.5	26	73.75	3.00	34.56	22.29	70.22	0.00
Sahiwal	34.00	25.00	74.00	9.50	36.30	20.84	60.50	0.00
Pakpattan	35.00	26.00	72.00	12.20	35.00	24.13	53.63	0.00
Okara	34.00	24.00	73.00	8.60	36.61	23.87	76.52	0.00
Bahawalpur	36.93	26.11	70.29	23.50	37.11	21.70	52.71	0.00
Bahawalnagar	35.11	24.40	65.44	0.00	37.42	25.16	57.30	0.00
R.Y.Khan	35.88	25.75	66.66	0.00	38.50	24.88	47.38	0.00
D.G. Khan	35.14	23.42	54.85	0.00	37.85	23.86	56.57	0.00
Muzaffar Garh	34.80	25.20	58.25	3.00	36.55	22.20	48.75	2.00
Rajanpur	36.2	27.5	55.00	5.00	39.10	27.9	58.60	0.00
Layyah	41.80	23.20	65.85	0.00	35.70	21.30	50.40	0.00
<b>AVERAGE</b>	<b>35.76</b>	<b>25.69</b>	<b>66.43</b>	<b>65.80</b>	<b>36.67</b>	<b>23.15</b>	<b>59.19</b>	<b>2.00</b>

**Weather forecast for next 7 day in cotton zone**

<b>Division</b>	<b>Dated</b>	6/10	7/10	8/10	9/10	10/10	11/10	12/10
<b>Multan</b>	Max.Temp.	36	39	38	38	38	34	35
	Min.Temp.	25	26	26	23	24	22	23
	Humidity %	38	28	25	24	16	30	21
<b>Sahiwal</b>	Max.Temp.	36	38	39	39	38	37	35
	Min.Temp.	23	23	24	22	22	20	21
	Humidity %	39	30	24	23	22	30	21
<b>Bahawalpur</b>	Max.Temp.	36	38	39	39	38	36	36
	Min.Temp.	25	25	25	25	24	24	22
	Humidity %	42	31	28	20	19	25	20
<b>D.G. Khan</b>	Max.Temp.	37	40	40	40	38	35	35
	Min.Temp.	26	26	24	24	22	20	22
	Humidity %	35	23	20	17	11	24	20
<b>Average</b>	<b>Max.Temp.</b>	<b>37.39</b>						
<b>Cotton</b>	<b>Min.Temp.</b>	<b>23.5</b>						
<b>Region</b>	<b>Humidity %</b>	<b>25.21</b>						

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

**Summary of weather forecast**

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

**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. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. Keeping in view, **it is predicted that population of this pest will increase 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%. The current weather conditions on overall Punjab basis (temp. Max. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. Keeping in view, **it is predicted that population of this pest will decrease 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. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. Keeping in view, **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. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. Keeping in view, **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. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. Keeping in view, **it is predicted that population of this pest will sustain during the coming week.**

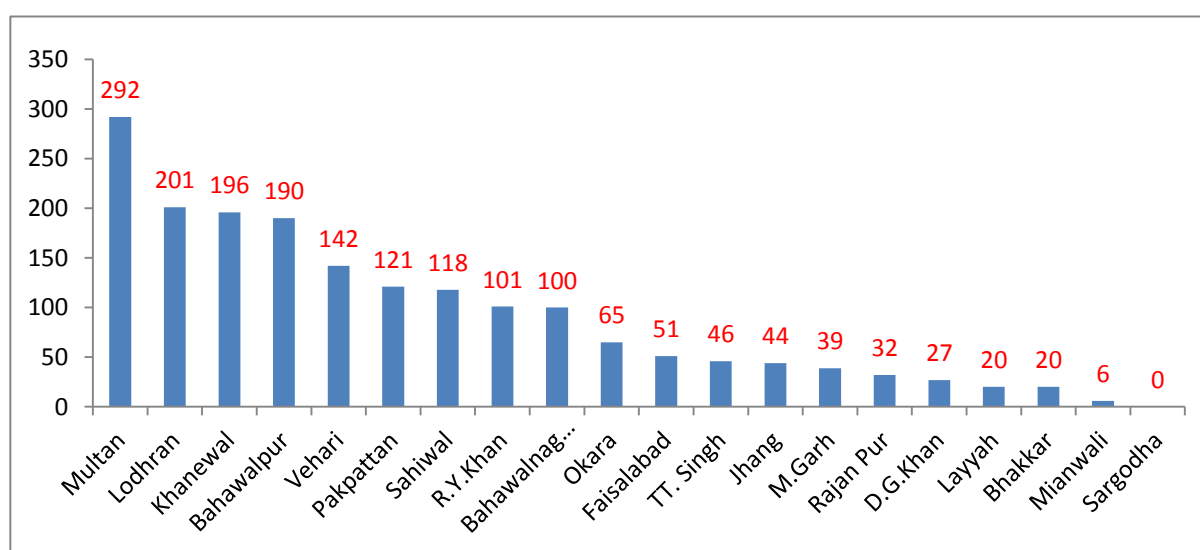
**Dusky Cotton Bug::** This pest flourishes best in moderate climate with optimum temperature 28-40°C with relative humidity above 50-80%. The current weather conditions on overall Punjab basis (temp. Max. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. Keeping in view, **it is predicted that population of this pest may 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. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. **It is predicted that population of this pest will increase rapidly on cotton during the coming week.**

### Moth Catches in Pheromone Traps during 1st Week of October, 2021

Moth Catches in Pheromone Traps During 1st Week of October 2021			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	292	6.95
Khanewal	8	196	3.50
Vehari	6	142	3.38
Lodhran	6	201	4.79
Sahiwal	4	118	4.21
Pakpattan	4	121	4.32
Okara	4	65	2.32
Bahawalpur	8	190	3.39
Bahawalnagar	10	100	1.43
R.Y.Khan	8	101	1.80
D.G.Khan	6	27	0.64
M.Garh	8	39	0.70
Rajan Pur	6	32	0.76
Layyah	6	20	0.48
Sargodha	0	0	0.00
Mianwali	4	6	0.21
Bhakkar	8	20	0.36
Faisalabad	6	51	1.21
TT. Singh	6	46	1.10
Jhang	4	44	1.57

*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%.humidity above 60-80%. Maximum lethal temperature for this pest is 45-53 °C The current weather conditions on overall Punjab basis (temp. Max. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. **It is predicted that population of this pest will sustain on cotton crop during the coming week.**

### **Moth catches on light traps during 1st week of October, 2021**

<b>Moth Catches on Light Traps/Trap/week During 1st Week of October, 2021</b>				
<b>District</b>	<b>Traps Installed</b>	<b>A.B.W</b>	<b>S.B.W</b>	<b>Armyworm</b>
Multan	3	9	3	9
Khanewal	4	10	0	56
Vehari	3	0	0	10
Lodhran	3	5	0	24
Sahiwal	2	1	0	3
Pakpattan	2	1	0	1
Okara	3	2	0	4
Bahawalpur	4	4	2	12
Bahawalnagar	5	5	5	9
R.Y.Khan	4	2	2	2
D.G.Khan	3	3	4	3
M.Garh	4	3	4	5
Rajan Pur	3	0	1	0
Layyah	3	0	0	2
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.Maximum lethal temperature for this pest is 45-53 °C.%.humidity above 60-80%. Maximum lethal temperature for this pest is 45-53 °C. The current weather conditions on overall Punjab basis (temp. Max. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max.

37.39 °C, Min. 23.5°C with humidity 25.21%. 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%. Maximum lethal temperature for this pest is 45-53 °C. It is % humidity above 60-80%. Maximum lethal temperature for this pest is 45-53 °C. The current weather conditions on overall Punjab basis (temp. Max. 35.76 °C, Min. 25.69°C with R. humidity 66.43%) & forecast for the next week temp. Max. 37.39 °C, Min. 23.5°C with humidity 25.21%. 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 sustain on cotton crop to the next week.**

**Wilting: The incidence of this disease sustain 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.
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	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

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	Flunicamid 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

- 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

- Keep the fields clean from weeds especially Its it which is a preferred host of armyworm.
- Avoid sowing of Jantar near cotton fields.
- Regular pest scouting at least twice a week.
- Hand picking and destruction of egg masses at initial stage as initially its attack starts in patches and is clearly visible.
- 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

- Keep Cotton fields free from all kinds of weeds.
- Eradicate other alternate host plants of CLCuV and dispose them off carefully.
- Thinning out and destruction of Virus affected plants.
- Remove CLCuV effected plants in less than 60 DAS (Days after sowing) crop.
- Hoeing after each irrigation or rain at wattar condition till canopies permit.
- 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.
- Irrigate the fields when needed keeping in view weather conditions e.g. temperature, rainfall, soil water holding capacity and plant need.
- Balanced use of Fertilizer i.e. N.P.K.
- 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 and 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 Bt and Non Bt varieties.
Army worm	(On appearance)
Aphid	On visible damage on top terminals.
Dusky Cotton bug	10 per leaf/bud