

## PEST SITUATION ON COTTON CROP IN PUNJAB DURING 4<sup>TH</sup> WEEK OF AUGUST, 2021

**Whitefly:** On overall Punjab basis 37.88 above ETL spots have been observed during current week as compared to 31.12% % in last week and 31.80% during the same corresponding period of last year. And 61.92% below ETL spots have been observed during current week as compared to 68.83% in last week and 67.71% 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	JAM PUR	77.5	31	A.P.EAST	31.7
2	RAJAN PUR	75.0	32	KEHROR PACCA	31.0
3	JALAL PUR P.W	70.0	33	MUZUFAR GARH	30.4
4	CHICHA WATNI	60.0	34	18-HAZARI	30.0
5	ROJHAN	58.0	35	LIAQUAT PUR	28.0
6	KOT CHUTTA	56.3	36	LODHRAN	27.1
7	ALI PUR	56.1	37	CHOBARA	27.1
8	D.G.KHAN	54.2	38	KAROR L.E.	26.9
9	JATOI	54.0	39	KABIR WALA	26.3
10	YAZMAN	52.7	40	RENALA KHURD	25.0
11	MULTAN	50.0	41	HAROOON ABAD	25.0
12	TAUNSA	50.0	42	KHAN PUR	24.0
13	BHAKKAR	50.0	43	DUYAPUR	23.5
14	BAHAWAL PUR	48.1	44	CHISHTIAN	22.0
15	SHUJABAD	46.7	45	JHANG	20.8
16	MIAN CHANNU	44.2	46	LAYYAH	20.0
17	DARYA KHAN	42.9	47	MIANWALI	19.2
18	KHANEWAL	42.2	48	PIPLAN	19.0
19	BURE WALA	40.0	49	BAHAWAL NAGAR	18.0
20	FORT ABBAS	40.0	50	KOT ADDU	17.6
21	VEHARI	38.9	51	SHORKOT	17.6
22	PAK PATTAN	37.9	52	OKARA	16.7
23	ARIF WALA	37.5	53	MINCHAN ABAD	16.7
24	MAILSI	36.8	54	A.P SIAL	14.3
25	SAHIWAL	36.4	55	DEPALPUR	12.5
26	R.Y.KHAN	36.0	56	T.T.SINGH	12.5
27	SADIQ ABAD	35.4	57	ISA KHEL	11.1
28	HASILPUR	34.8	58	GOJRA	8.0
29	JAHANIAN	34.1	59	PIR MAHAL	8.0
30	KALLOR KOT	33.3			

**Jassid:** On overall Punjab basis 7.80% above ETL spots has been observed as compared to 10.00% in last week and same week of last year 10.66%. And 91.65% below ETL spots have been observed during current week as compared to 89.33% in last week and 84.88% 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	42.9	28	CHOBARA	11.9
2	BHAKKAR	33.3	29	ISA KHEL	11.1
3	18-HAZARI	30.0	30	MANKERA	11.1
4	ALI PUR	29.8	31	TANDLIANWALA	10.3
5	SAHIWAL	27.3	32	A.P.EAST	10.0
6	KALLOR KOT	26.7	33	FORT ABBAS	10.0
7	FAISALABAD	25.0	34	LIAQUAT PUR	10.0
8	A.P SIAL	23.8	35	MINCHAN ABAD	9.5

9	PIPLAN	23.8	36	JATOI	8.0
10	PAK PATTAN	20.7	37	BAHAWAL PUR	7.4
11	MIANWALI	19.2	38	R.Y.KHAN	6.0
12	SHORKOT	17.6	39	CHICHA WATNI	5.0
13	T.T.SINGH	17.5	40	BURE WALA	4.0
14	OKARA	16.7	41	BAHAWAL NAGAR	4.0
15	JHANG	16.7	42	KOT ADDU	3.9
16	PIR MAHAL	16.0	43	JAM PUR	2.9
17	RENALA KHURD	15.0	44	KABIR WALA	2.6
18	HAROON ABAD	15.0	45	JALAL PUR P.W	2.5
19	SADIQ ABAD	14.6	46	MIAN CHANNU	2.3
20	CHISHTIAN	14.0	47	SHUJABAD	2.2
21	LAYYAH	14.0	48	KHANEWAL	2.2
22	KAROR L.E.	13.5	49	HASILPUR	2.2
23	SUMUNDRI	13.0	50	MUZUFAR GARH	2.2
24	ARIF WALA	12.5	51	D.G.KHAN	2.1
25	DEPALPUR	12.5	52	TAUNSA	2.1
26	KHAN PUR	12.0	53	MULTAN	1.5
27	GOJRA	12.0	54	KOT CHUTTA	0.8

**Thrips:** On overall Punjab basis 2.71% above ETL spots has been observed as compared to 7.44% in last week and same week of last year i.e.10.41%. And 95.18% below ETL spots have been observed during current week as compared to 90.76% in last week and 86.83% 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	FORT ABBAS	12.0	15	R.Y.KHAN	4.0
2	A.P.EAST	11.7	16	KOT ADDU	3.9
3	MIANWALI	11.5	17	MULTAN	3.0
4	SADIQ ABAD	10.4	18	VEHARI	2.8
5	KHAN PUR	10.0	19	MINCHAN ABAD	2.4
6	LIAQUAT PUR	10.0	20	SHUJABAD	2.2
7	LAYYAH	10.0	21	KHANEWAL	2.2
8	18-HAZARI	10.0	22	D.G.KHAN	2.1
9	PIPLAN	9.5	23	TAUNSA	2.1
10	KAROR L.E.	7.7	24	CHISHTIAN	2.0
11	HAROON ABAD	7.5	25	KEHROR PACCA	1.7
12	BAHAWAL PUR	5.6	26	LODHRAN	1.7
13	ALI PUR	5.3	27	CHOBARA	1.7
14	JHANG	4.2			

**Mealy Bug:** On overall Punjab basis 38.31% spots (all considered above ETL) of Mealy Bug have been observed as compared to 32.29% in last week and 19.41% 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	SHUJABAD	82.2	29	ROJHAN	32.0
2	JALAL PUR P.W	80.0	30	LIAQUAT PUR	30.0
3	MIAN CHANNU	76.7	31	CHICHA WATNI	27.5
4	MULTAN	74.2	32	KHAN PUR	26.0
5	KABIR WALA	73.7	33	LAYYAH	26.0
6	VEHARI	72.2	34	SAHIWAL	21.2
7	BURE WALA	72.0	35	BAHAWAL NAGAR	20.0
8	MAILSI	71.1	36	T.T.SINGH	20.0
9	YAZMAN	70.9	37	KAROR L.E.	19.2
10	JAHANIAN	65.9	38	KOT CHUTTA	18.5
11	KHANEWAL	64.4	39	PAK PATTAN	17.2
12	DUYAPUR	60.8	40	OKARA	16.7

13	RAJAN PUR	60.4	41	BHAKKAR	16.7
14	HASILPUR	58.7	42	GOJRA	16.0
15	JAM PUR	52.9	43	CHOBARA	15.3
16	BAHAWAL PUR	51.9	44	HAROON ABAD	15.0
17	KEHROR PACCA	48.3	45	ARIF WALA	12.5
18	A.P.EAST	45.0	46	DEPALPUR	12.5
19	FORT ABBAS	44.0	47	JHANG	12.5
20	D.G.KHAN	43.8	48	MIANWALI	11.5
21	LODHRAN	42.4	49	TANDLIANWALA	10.3
22	SADIQ ABAD	41.7	50	RENALA KHURD	10.0
23	CHISHTIAN	40.0	51	18-HAZARI	10.0
24	MUZUFAR GARH	39.1	52	PIPLAN	9.5
25	R.Y.KHAN	36.0	53	PIR MAHAL	8.0
26	TAUNSA	35.4	54	KOT ADDU	7.8
27	ALI PUR	33.3	55	MINCHAN ABAD	7.1
28	JATOI	32.0			

**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 2.39% below ETL spots have been observed during current week as compared to 4.13% in last week and 3.40% during the same corresponding period of last year.

**Dusky Cotton Bug:** On overall Punjab basis 0.20% above ETL spots have been observed during current week as compared to 0.04% in last week and 0.07% during the same corresponding period of last year. And 28.35% below ETL spots have been observed during current week as compared to 25.52% in last week and 19.09% 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	GOJRA	4.0	4	LODHRAN	1.7
2	SHUJABAD	2.2	5	MULTAN	1.5
3	KEHROR PACCA	1.7			

**Armyworm:** On overall Punjab basis 1.96% spots (all considered above ETL) of Armyworm have been observed as compared to 1.84% in last week and 2.66% 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	KOT ADDU	11.8	13	KAROR L.E.	3.8
2	18-HAZARI	10.0	14	MIANWALI	3.8
3	BAHAWAL PUR	9.3	15	A.P.EAST	3.3
4	MULTAN	9.1	16	VEHARI	2.8
5	JATOI	8.0	17	KABIR WALA	2.6
6	MIAN CHANNU	7.0	18	JALAL PUR P.W	2.5
7	ALI PUR	5.3	19	JAHANIAN	2.3
8	PIPLAN	4.8	20	KHANEWAL	2.2
9	SHUJABAD	4.4	21	HASILPUR	2.2
10	BURE WALA	4.0	22	R.Y.KHAN	2.0
11	KHAN PUR	4.0	23	KEHROR PACCA	1.7
12	DUYAPUR	3.9	24	LODHRAN	1.7

**Pink Boll Worm:** On overall Punjab basis 8.71% above ETL spots have been observed as compared to 6.68% in last week and 1.77% same corresponding period of the last year. And 32.75% below ETL spots have been observed as compared to 29.91% in last week and 19.55% during same corresponding period of last year.

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

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	SAHIWAL	24.2	25	SADIQ ABAD	8.3
2	KABIR WALA	23.7	26	FORT ABBAS	8.0
3	KHANEWAL	22.2	27	PIR MAHAL	8.0
4	ALI PUR	21.1	28	JALAL PUR P.W	7.5
5	DUYAPUR	19.6	29	RAJAN PUR	7.3
6	KEHROR PACCA	19.0	30	PAK PATTAN	6.9
7	MIAN CHANNU	18.6	31	KHAN PUR	6.0
8	CHISHTIAN	18.0	32	JATOI	6.0
9	LODHRAN	16.9	33	YAZMAN	5.5
10	VEHARI	16.7	34	T.T.SINGH	5.0
11	OKARA	16.7	35	HASILPUR	4.3
12	BURE WALA	16.0	36	MUZUFAR GARH	4.3
13	JAHANIAN	15.9	37	ARIF WALA	4.2
14	SHUJABAD	15.6	38	GOJRA	4.0
15	CHICHA WATNI	15.0	39	TANDLIANWALA	3.4
16	BAHAWAL PUR	14.8	40	KOT CHUTTA	2.5
17	R.Y.KHAN	14.0	41	MINCHAN ABAD	2.4
18	MAILSI	13.2	42	LAYYAH	2.0
19	BAHAWAL NAGAR	12.0	43	ROJHAN	2.0
20	MULTAN	10.6	44	KOT ADDU	2.0
21	RENALA KHURD	10.0	45	JAM PUR	2.0
22	A.P.EAST	10.0	46	KAROR L.E.	1.9
23	HAROON ABAD	10.0	47	CHOBARA	1.7
24	LIAQUAT PUR	10.0			

**American Bollworm:** On overall Punjab basis 0.08% 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 0.20% below ETL spots have been observed as compared to 0.18% in last week and 0.35% 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	JATOI	2.0

**Spotted Bollworm:** On overall Punjab basis 0.71% above ETL spots have been observed as compared to 0.27% in last week and 0.07% during same corresponding period of last year & 1.53% below ETL spots have been observed as compared to 0.81% in last week and 0.42% during same corresponding period of last year.

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

S. NO.	TEHSIL	%AGE	S.NO.	TEHSIL	%AGE
1	JAM PUR	6.9	3	R.Y.KHAN	4.0
2	KOT CHUTTA	6.7	4	D.G.KHAN	2.1

**CLCuV:** On overall Punjab basis 26.59% spots (all considered above ETL) of CLCV have been observed as compared to 24.62% in last week and 13.46% 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	BURE WALA	100.0	28	HASILPUR	21.7
2	KOT ADDU	100.0	29	A.P.EAST	21.7
3	VEHARI	69.4	30	JALAL PUR P.W	20.0
4	MUZUFAR GARH	67.4	31	18-HAZARI	20.0
5	KABIR WALA	57.9	32	JAM PUR	19.6
6	JATOI	56.0	33	MIANWALI	19.2
7	MAILSI	52.6	34	PAK PATTAN	17.2
8	CHICHA WATNI	52.5	35	LODHRAN	16.9
9	ALI PUR	50.9	36	BHAKKAR	16.7
10	KEHROR PACCA	48.3	37	PIPLAN	14.3
11	TAUNSA	47.9	38	DUYAPUR	13.7
12	JAHANIAN	47.7	39	JHANG	12.5
13	SHUJABAD	46.7	40	KHAN PUR	12.0
14	MIAN CHANNU	46.5	41	LIAQUAT PUR	10.0
15	LAYYAH	42.0	42	ARIF WALA	8.3
16	D.G.KHAN	41.7	43	BAHAWAL NAGAR	8.0
17	MULTAN	40.9	44	SADIQ ABAD	6.3
18	KHANEWAL	35.6	45	SAHIWAL	6.1
19	CHOBARA	33.9	46	CHISHTIAN	6.0
20	T.T.SINGH	32.5	47	ROJHAN	6.0
21	GOJRA	32.0	48	SHORKOT	5.9
22	DARYA KHAN	28.6	49	HAROON ABAD	5.0
23	KAROR L.E.	26.9	50	SUMUNDRI	4.3
24	R.Y.KHAN	26.0	51	BAHAWAL PUR	3.7
25	PIR MAHAL	24.0	52	MINCHAN ABAD	2.4
26	KOT CHUTTA	23.5	53	FORT ABBAS	2.0
27	MANKERA	22.2			

**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	36.57	28.86	66.50	0.00	38.14	32.00	67.26	2.40
Khanewal	39.33	28.47	57.40	0.00	39.71	30.71	58.14	0.00
Vehari	39.50	26.50	61.95	0.00	38.51	28.29	72.29	7.00
Lodhran	37.86	29.43	59.29	0.00	39.71	31.00	69.00	0.00
Sahiwal	38.00	27.00	64.00	0.00	36.00	27.00	72.00	23.00
Pakpattan	39.00	29.00	52.00	0.00	33.33	26.50	54.67	26.00
Okara	38.00	27.00	62.00	0.00	37.90	27.01	74.33	25.00
Bahawalpur	39.43	27.41	58.43	0.00	37.37	28.16	61.43	1.16
Bahawalnagar	38.92	27.50	58.33	0.00	36.83	25.42	59.00	0.00
R.Y.Khan	39.14	26.57	54.14	0.00	35.29	27.43	73.00	0.00
D.G. Khan	41.43	28.57	52.79	0.00	38.00	30.14	71.14	5.00
Muzaffar Garh	38.83	28.00	43.75	3.00	37.50	29.70	67.00	2.00
Rajanpur	41.7	28.5	47.50	0.00	42.40	30.7	52.70	7.00
Layyah	40.71	29.29	54.21	0.00	37.00	26.71	62.12	0.00
<b>TOT/AVG</b>	<b>39.17</b>	<b>28.01</b>	<b>56.59</b>	<b>3.00</b>	<b>37.69</b>	<b>28.63</b>	<b>65.29</b>	<b>98.56</b>

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

Division	Dated	31/8	1/9	2/9	3/9	4/9	5/9	6/9
Multan	Max.Temp.	37	36	39	36	40	41	44
	Min.Temp.	26	27	27	28	29	30	33
	Humidity %	48	47	35	42	33	29	21
Sahiwal	Max.Temp.	35	36	38	38	39	40	44
	Min.Temp.	26	26	27	27	27	28	30
	Humidity %	44	43	37	41	40	31	19
Bahawalpur	Max.Temp.	38	37	39	35	39	40	41
	Min.Temp.	27	27	28	28	27	30	32
	Humidity %	47	42	37	47	37	35	24
D.G. Khan	Max.Temp.	38	37	39	38	40	42	44
	Min.Temp.	28	27	28	28	29	30	33
	Humidity %	39	41	38	40	31	28	21
Average Cotton Region	Max.Temp.	38.93						
	Min.Temp.	28.32						
	Humidity %	36.32						

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

**Summary of weather forecast**

Overall weather for seven days in cotton zone during next week will remain hot, dry & shiny 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. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. Keeping in view the climatic conditions, **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%. Maximum lethal The current weather conditions on overall Punjab basis (temp. Max. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. Keeping in view the prevailing conditions, **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. Max. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. Keeping in view the climatic conditions, **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. Max. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next

week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. 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. Max. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. 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. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. Keeping in view, **it is predicted that population of this pest may increase during coming week.**

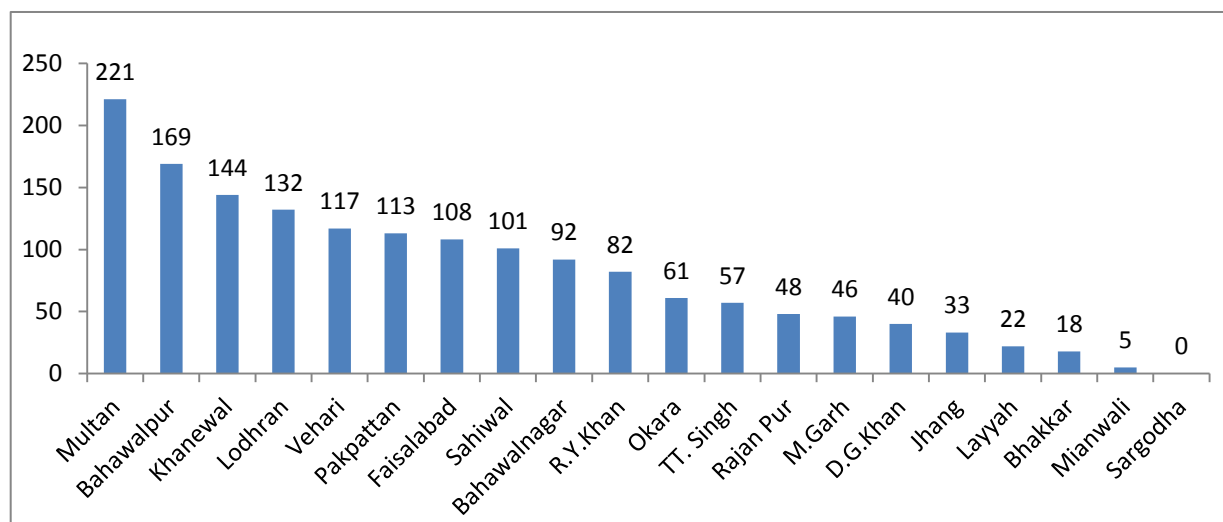
**Pink Bollworm:** This pest flourishes best at moderate climate with optimum temperature 32-40 °C with relative humidity above 60-80%. Maximum lethal temperature for this pest is 45-53 °C. The current weather conditions on overall Punjab basis (temp. Max. Max. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. **It is predicted that population of this pest will increase rapidly on cotton during the coming week .**



**Moth Catches in Pheromone Traps during 4<sup>th</sup> Week of August, 2021**

<b>Moth Catches in Pheromone Traps During 4<sup>th</sup> Week of August 2021</b>			
<b>District</b>	<b>Traps Installed</b>	<b>Moth catches/Trap/week</b>	<b>Av. Moth catches/Trap/night</b>
<b>Multan</b>	6	221	5.26
<b>Khanewal</b>	8	144	2.57
<b>Vehari</b>	6	117	2.79
<b>Lodhran</b>	6	132	3.14
<b>Sahiwal</b>	4	101	3.61
<b>Pakpattan</b>	4	113	4.04
<b>Okara</b>	4	61	2.18
<b>Bahawalpur</b>	8	169	3.02
<b>Bahawalnagar</b>	10	92	1.31
<b>R.Y.Khan</b>	8	82	1.46
<b>D.G.Khan</b>	6	40	0.95
<b>M.Garh</b>	8	46	0.82
<b>Rajan Pur</b>	6	48	1.14
<b>Layyah</b>	6	22	0.52
<b>Sargodha</b>	0	0	0
<b>Mianwali</b>	4	5	0.18
<b>Bhakkar</b>	8	18	0.32
<b>Faisalabad</b>	6	108	2.57
<b>TT. Singh</b>	6	57	1.36
<b>Jhang</b>	4	33	1.18

*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. Max. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. **It is predicted that population of this pest will sustain on cotton crop during the coming week.**

### **Moth catches on light traps during 4<sup>th</sup> week of August, 2021**

<b>Moth Catches on Light Traps/Trap/week During 4<sup>th</sup> Week of August, 2021</b>				
<b>District</b>	<b>Traps Installed</b>	<b>A.B.W</b>	<b>S.B.W</b>	<b>Armyworm</b>
Multan	3	1.0	0.0	2.1
Khanewal	4	2.3	0.0	7.3
Vehari	3	0.0	0.4	1.7
Lodhran	3	0.9	0.0	2.7
Sahiwal	2	0.1	0.0	0.1
Pakpattan	2	0.1	0.0	0.1
Okara	3	0.3	0.0	0.3
Bahawalpur	4	0.7	0.1	2.1
Bahawalnagar	5	1.0	0.7	2.0
R.Y.Khan	4	1.1	1.0	1.0
D.G.Khan	3	0.7	0.9	0.4
M.Garh	4	1.3	1.4	1.7
Rajan Pur	3	0.0	0.0	0.0
Layyah	3	0.0	0	0.4
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. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. 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. 39.17 °C, Min. 28.01 °C with R. humidity 56.59%) & forecast for the next week temp. Max. 38.93 °C, Min. 28.32°C with humidity 36.32%. Keeping in view, **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
			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 <sup>nd</sup> 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