

PEST SITUATION ON COTTON CROP IN PUNJAB DURING 1ST WEEK OF SEPTEMBER, 2020

Pest Situation of Cotton Pests								
Sr. No.	Pest Name	%age of spots						Remarks
		Current Week		Previous week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	Whitefly	29.02	69.83	31.80	67.71	17.07	79.90	High & Sustaining
2	Jassid	11.62	84.97	10.66	84.88	7.57	85.41	High & Sustaining
3	Thrips	4.32	90.81	10.41	86.83	4.01	87.19	Decreasing
4	Mealy Bug	22.70	-	19.41	-	18.22	-	Increasing
5	Mites	0.00	1.25	0.00	3.40	0.01	0.59	Low
6	Dusky Cotton Bug	0.14	20.98	0.07	19.09	0.00	17.24	Low
7	Pink Bollworm	4.43	22.87	1.77	19.55	3.70	20.49	Increasing
8	American Bollworm	0.03	0.41	0.00	0.35	0.00	0.24	Low
9	Spotted Bollworm	0.03	0.57	0.07	0.42	0.03	0.63	Low
10	Armyworm	4.22	-	2.66	-	3.63	-	Increasing
11	CLCuV	15.17	-	13.46	-	18.88	-	High & sustaining

Tehsil wise percentage of hot spots of Whitefly

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	ALI PUR	62.0	32	KHAN PUR	26.0
2	JATOI	60.4	33	MUZUFAR GARH	26.0
3	JAM PUR	60.0	34	KABIR WALA	25.0
4	ROJHAN	60.0	35	KALLOR KOT	22.7
5	RAJAN PUR	55.8	36	FORT ABBAS	22.2
6	TAUNSA	52.0	37	OKARA	22.0
7	MANKERA	50.0	38	HAROON ABAD	20.5
8	HASILPUR	48.1	39	PIPLAN	20.0
9	KHANEWAL	46.6	40	BURE WALA	18.0
10	DUYAPUR	46.2	41	ARIF WALA	17.5
11	D.G.KHAN	45.0	42	MIANWALI	16.7
12	KOT CHUTTA	44.7	43	PAK PATTAN	15.6
13	A.P.EAST	41.2	44	ISA KHEL	13.3
14	LODHRAN	40.7	45	SAHIWAL	12.9
15	KEHROR PACCA	40.4	46	KOT ADDU	12.8
16	JALAL PUR P.W	40.0	47	CHOBARA	12.0
17	YAZMAN	39.7	48	JHANG	11.5
18	R.Y.KHAN	38.1	49	BAHAWAL NAGAR	10.0
19	BHAKKAR	36.4	50	MINCHAN ABAD	9.1
20	BAHAWAL PUR	34.3	51	KAROR L.E.	7.4
21	MAILSI	34.0	52	RENALA KHURD	7.3
22	SADIQ ABAD	33.9	53	18-HAZARI	6.9
23	MIAN CHANNU	33.3	54	PIR MAHAL	6.5
24	LIAQUAT PUR	30.3	55	TANDLIANWALA	5.9
25	MULTAN	30.0	56	SUMUNDRI	5.6
26	CHISHTIAN	30.0	57	LAYYAH	5.5
27	SHUJABAD	29.5	58	DEPALPUR	5.3
28	DARYA KHAN	28.6	59	GOJRA	3.1
29	VEHARI	28.0	60	SHORKOT	2.9
30	CHICHA WATNI	27.6	61	T.T.SINGH	2.3
31	JAHANIAN	27.5			

Tehsil wise percentage of hot spots of Jassid

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	FORT ABBAS	33.3	30	DEPALPUR	10.5
2	BHAKKAR	27.3	31	CHICHA WATNI	10.5
3	SHORKOT	26.5	32	LIAQUAT PUR	10.1
4	CHISHTIAN	26.0	33	KABIR WALA	10.0
5	MINCHAN ABAD	25.0	34	TAUNSA	10.0
6	HASILPUR	24.7	35	ALI PUR	10.0
7	OKARA	24.4	36	MANKERA	10.0
8	D.G.KHAN	21.7	37	KOT CHUTTA	9.7
9	VEHARI	20.0	38	KHAN PUR	9.6
10	YAZMAN	19.0	39	T.T.SINGH	9.3
11	FAISALABAD	18.2	40	TANDLIANWALA	8.8
12	KEHROR PACCA	17.5	41	SHUJABAD	8.2
13	MIANWALI	16.7	42	MAILSI	8.0
14	PIPLAN	16.7	43	CHOBARA	8.0
15	LAYYAH	16.4	44	MIAN CHANNU	7.7
16	BURE WALA	16.0	45	DUYAPUR	7.7
17	BAHAWAL NAGAR	16.0	46	JAHANIAN	7.5
18	A.P.EAST	15.7	47	RENALA KHURD	7.3
19	JHANG	15.4	48	SADIQ ABAD	7.1
20	ARIF WALA	15.0	49	KHANEWAL	6.8
21	SAHIWAL	14.5	50	PAK PATTAN	6.7
22	DARYA KHAN	14.3	51	ISA KHEL	6.7
23	KALLOR KOT	13.6	52	JATOI	5.7
24	KAROR L.E.	13.2	53	MULTAN	5.0
25	PIR MAHAL	12.9	54	R.Y.KHAN	4.8
26	BAHAWAL PUR	11.9	55	18-HAZARI	3.4
27	LODHRAN	11.9	56	GOJRA	3.1
28	HAROON ABAD	11.4	57	MUZUFAR GARH	2.0
29	SUMUNDRI	11.1			

Tehsil wise percentage of hot spots of Thrips

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	TAUNSA	36.0	15	BAHAWAL PUR	7.5
2	YAZMAN	24.1	16	SADIQ ABAD	7.1
3	A.P.EAST	13.7	17	MIANWALI	6.7
4	D.G.KHAN	11.7	18	PIPLAN	6.7
5	ALI PUR	10.0	19	ISA KHEL	6.7
6	MANKERA	10.0	20	R.Y.KHAN	6.3
7	HAROON ABAD	9.1	21	CHISHTIAN	6.0
8	LAYYAH	9.1	22	KOT CHUTTA	5.8
9	KAROR L.E.	8.8	23	MINCHAN ABAD	4.5
10	KHAN PUR	8.2	24	FORT ABBAS	4.4
11	MAILSI	8.0	25	HASILPUR	2.5
12	BAHAWAL NAGAR	8.0	26	VEHARI	2.0
13	LIAQUAT PUR	7.9	27	CHOBARA	2.0
14	JATOI	7.5	28	RAJAN PUR	1.3

Tehsil wise percentage of hot spots of Mealy bug

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	ALI PUR	60.0	28	T.T.SINGH	18.6
2	JATOI	58.5	29	D.G.KHAN	18.3
3	A.P.EAST	51.0	30	HAROON ABAD	18.2
4	DUYAPUR	50.0	31	BAHAWAL NAGAR	18.0
5	HASILPUR	49.4	32	MUZUFAR GARH	16.0
6	R.Y.KHAN	44.4	33	GOJRA	15.6

7	CHISHTIAN	42.0	34	SAHIWAL	12.9
8	KOT CHUTTA	39.8	35	CHICHA WATNI	12.4
9	FORT ABBAS	37.8	36	DEPALPUR	10.5
10	SHUJABAD	36.1	37	PIPLAN	10.0
11	MAILSI	36.0	38	OKARA	9.8
12	BAHAWAL PUR	35.8	39	RAJAN PUR	9.1
13	KHAN PUR	35.6	40	BURE WALA	8.0
14	YAZMAN	34.5	41	TAUNSA	8.0
15	LODHRAN	33.9	42	JHANG	7.7
16	MIAN CHANNU	33.3	43	ARIF WALA	7.5
17	JAM PUR	32.0	44	MIANWALI	6.7
18	KHANEWAL	28.8	45	KAROR L.E.	5.9
19	LIAQUAT PUR	28.1	46	KALLOR KOT	4.5
20	JAHANIAN	27.5	47	KOT ADDU	4.3
21	SADIQ ABAD	26.8	48	VEHARI	4.0
22	PIR MAHAL	25.8	49	LAYYAH	3.6
23	MULTAN	25.0	50	18-HAZARI	3.4
24	JALAL PUR P.W	25.0	51	RENALA KHURD	2.4
25	KEHROR PACCA	24.6	52	CHOBARA	2.0
26	KABIR WALA	22.5	53	TANDLIANWALA	1.5
27	MINCHAN ABAD	20.5			

No Hot Spots of Mites in any Tehsil

Tehsil wise percentage of hot spots of Dusky Cotton Bug

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	HASILPUR	3.7	2	SHUJABAD	1.6

Tehsil wise percentage of hot spots of Army Worm

Sr#	TEHSIL	%AGE	Sr3	TEHSIL	%AGE
1	JATOI	15.1	19	MIAN CHANNU	5.1
2	ALI PUR	14.0	20	LODHRAN	5.1
3	KHANEWAL	13.7	21	JALAL PUR P.W	5.0
4	DUYAPUR	13.5	22	D.G.KHAN	5.0
5	PIR MAHAL	12.9	23	OKARA	4.9
6	BAHAWAL NAGAR	12.0	24	R.Y.KHAN	4.8
7	KEHROR PACCA	10.5	25	KAROR L.E.	4.4
8	JAHANIAN	10.0	26	MAILSI	4.0
9	A.P.EAST	9.8	27	CHISHTIAN	4.0
10	BAHAWAL PUR	9.0	28	TAUNSA	4.0
11	JHANG	7.7	29	CHICHA WATNI	3.8
12	MINCHAN ABAD	6.8	30	PIPLAN	3.3
13	KOT CHUTTA	6.8	31	KABIR WALA	2.5
14	MULTAN	6.7	32	HASILPUR	2.5
15	FORT ABBAS	6.7	33	VEHARI	2.0
16	MIANWALI	6.7	34	CHOBARA	2.0
17	SADIQ ABAD	5.4	35	LIAQUAT PUR	1.1
18	YAZMAN	5.2			

Tehsil wise percentage of hot spots of Pink Bollworm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	MIAN CHANNU	20.5	20	BURE WALA	4.0
2	SAHIWAL	19.4	21	CHOBARA	4.0
3	PIR MAHAL	19.4	22	JATOI	3.8
4	KEHROR PACCA	15.8	23	SADIQ ABAD	3.6
5	CHICHA WATNI	14.3	24	D.G.KHAN	3.3

6	BAHAWAL PUR	13.4	25	R.Y.KHAN	3.2
7	KABIR WALA	12.5	26	GOJRA	3.1
8	ALI PUR	10.0	27	JAHANIAN	2.5
9	HASILPUR	9.9	28	OKARA	2.4
10	DUYAPUR	9.6	29	LIAQUAT PUR	2.2
11	BHAKKAR	9.1	30	PAK PATTAN	2.2
12	LODHRAN	6.8	31	KOT ADDU	2.1
13	VEHARI	6.0	32	MAILSI	2.0
14	A.P.EAST	5.9	33	KOT CHUTTA	1.9
15	KHANEWAL	5.5	34	YAZMAN	1.7
16	ARIF WALA	5.0	35	SHUJABAD	1.6
17	T.T.SINGH	4.7	36	TANDLIANWALA	1.5
18	KALLOR KOT	4.5	37	KHAN PUR	1.4
19	KAROR L.E.	4.4			

Tehsil wise percentage of hot spots of American Bollworm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	MIANWALI	3.3			

Tehsil wise percentage of hot spots of Spotted Bollworm

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	R.Y. KHAN	1.6			

Tehsil wise percentage of hot spots of CLCuV

Sr#	TEHSIL	%AGE	Sr#	TEHSIL	%AGE
1	ALI PUR	78.0	21	DUYAPUR	17.3
2	JATOI	62.3	22	LODHRAN	13.6
3	KOT ADDU	51.1	23	KEHROR PACCA	12.3
4	SHUJABAD	44.3	24	TAUNSA	10.0
5	VEHARI	44.0	25	BAHAWAL PUR	9.0
6	SADIQ ABAD	41.1	26	PIR MAHAL	6.5
7	BURE WALA	36.0	27	BAHAWAL NAGAR	6.0
8	MUZUFAR GARH	36.0	28	CHICHA WATNI	5.7
9	KHAN PUR	34.2	29	KHANEWAL	5.5
10	R.Y.KHAN	33.3	30	KABIR WALA	5.0
11	JALAL PUR P.W	32.5	31	KALLOR KOT	4.5
12	MULTAN	31.7	32	CHOBARA	4.0
13	KOT CHUTTA	24.3	33	JHANG	3.8
14	A.P.EAST	23.5	34	LAYYAH	3.6
15	HASILPUR	21.0	35	GOJRA	3.1
16	JAHANIAN	20.0	36	KAROR L.E.	2.9
17	MAILSI	20.0	37	MIAN CHANNU	2.6
18	D.G.KHAN	20.0	38	ARIF WALA	2.5
19	MANKERA	20.0	39	T.T.SINGH	2.3
20	LIAQUAT PUR	18.0	40	PAK PATTAN	2.2

FORECAST FOR THE NEXT WEEK

Meteorological data of the current week 2019-2020

Districts	2020				2019			
	Temperature °C		R.H%	Rainfall (mm)	Temperature °C		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	34.00	29.10	84.85	69.00	37.00	30.17	70.60	22.30
Khanewal	32.00	26.00	84.29	109.00	38.26	29.29	66.57	3.00
Vehari	34.78	27.67	76.44	36.00	37.11	29.44	69.72	21.00
Lodhran	32.43	27.29	83.50	55.30	38.14	30.14	62.00	0.00
Sahiwal	33.24	25.52	83.40	27.00	36.86	26.96	71.80	0.00
Pakpattan	32.70	26.70	66.60	63.00	36.10	28.40	52.60	0.00
Okara	33.00	28.30	80.00	34.00	34.10	25.30	89.00	14.00
Bahawalpur	34.03	25.91	74.55	7.60	38.53	28.55	69.15	1.40
Bahawalnagar	34.83	22.42	69.12	8.90	37.63	27.31	61.13	0.00
R.Y.Khan	32.13	25.38	44.63	21.71	40.29	27.86	77.71	3.00
D.G. Khan	35.71	27.14	76.21	135.00	39.29	29.14	69.00	0.00
Muzaffar Garh	34.80	26.20	48.29	9.29	37.44	29.70	46.57	0.00
Rajanpur	42.4	30.2	62.40	8.00	40.30	25.4	64.40	0.00
Layyah	31.71	23.43	78.00	94.00	37.42	25.28	53.14	14.00
TOT/AVG	34.13	26.52	72.31	677.80	37.75	28.07	65.96	78.70

Weather forecast for next 7 day in cotton zone

Division	Dated	7/9	8/9	9/9	10/9	11/9	12/9	13/9
Multan	Max.Temp.	39	41	41	42	42	41	38
	Min.Temp.	27	29	30	30	29	27	29
	Humidity %	33	25	25	20	20	26	19
Sahiwal	Max.Temp.	36	38	38	40	40	39	35
	Min.Temp.	26	27	27	26	27	26	29
	Humidity %	47	39	35	30	30	32	25
Bahawalpur	Max.Temp.	39	41	41	41	41	40	37
	Min.Temp.	29	28	28	29	28	27	28
	Humidity %	33	28	26	25	24	28	25
D.G. Khan	Max.Temp.	41	42	42	43	43	42	39
	Min.Temp.	26	29	30	30	28	27	29
	Humidity %	28	20	22	18	18	19	16
Average Cotton Region	Max.Temp.	40.07						
	Min.Temp.	28.04						
	Humidity %	26.29						

Source: timeanddate.com

Summary of weather forecast

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

Pest Forecast for Next 15 days

Avg. Temperature for next 15 days = 31.5°C

Avg. Relative Humidity for next 15 days= 28.34%

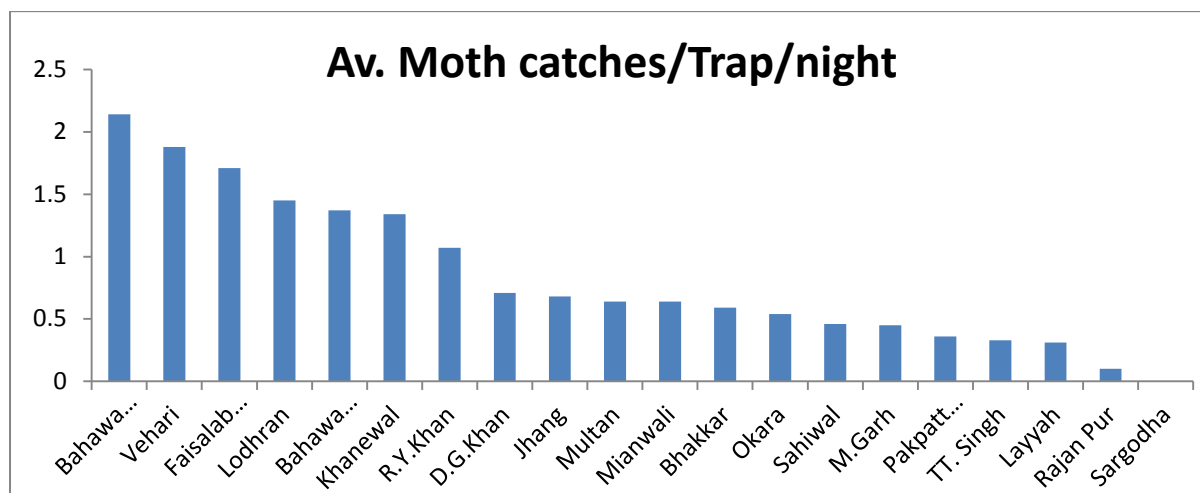
Sr. No.	Pest Name	Opt. Temperature	Relative Humidity	Pest Prediction
1	Whitefly	35-42 °C	<50%	May Sustain
2	Jassid	35-40 °C	>70%	May Sustain
3	Thrips	35-40 °C	<60%	May Sustain
4	Mealy Bug	35-40 °C	<60-80%	May Sustain
5	Mites	28-40 °C	<40-50%	May Sustain
6	Dusky Cotton Bug	28-40 °C	<50-80%	May Sustain
7	Pink Bollworm	32-40 °C	<60-80%	May Sustain
8	American Bollworm	32-40 °C	<50-70%	May Sustain
9	Spotted Bollworm	30-40 °C	<60-100%	May Sustain
10	Armyworm	30-40 °C	>70-100%	May Sustain
11	CLCuV	-	-	May Sustain

Forecast of Sucking Pests:

Moth Catches in Pheromone Traps during 1ST Week of September, 2020

Moth Catches in Pheromone Traps During 1 st Week of September, 2020			
District	Traps Installed	Moth catches/Trap/week	Av. Moth catches/Trap/night
Multan	6	27	0.64
Khanewal	8	75	1.34
Vehari	6	79	1.88
Lodhran	6	61	1.45
Sahiwal	4	13	0.46
Pakpattan	4	10	0.36
Okara	4	15	0.54
Bahawalpur	8	120	2.14
Bahawalnagar	10	96	1.37
R.Y.Khan	8	60	1.07
D.G.Khan	4	30	0.71
M.Garh	8	25	0.45
Rajan Pur	6	4	0.10
Layyah	6	13	0.31
Sargodha	2	0	0.00
Mianwali	4	18	0.64
Bhakkar	8	33	0.59
Faisalabad	6	72	1.71
TT. Singh	6	14	0.33
Jhang	4	38	0.68

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



Moth catches on light traps during 1st Week of September, 2020

Moth Catches on Light Traps/Trap/week During 1 st Week of September, 2020				
District	Traps Installed	A.B.W	S.B.W	Armyworm
Multan	3	1	0	8
Khanewal	4	3	0	47
Vehari	3	0	0	21
Lodhran	3	3	0	29
Sahiwal	2	3	0	10
Pakpattan	2	3	0	10
Okara	3	4	0	6
Bahawalpur	4	2	1	3
Bahawalnagar	5	7	5	8
R.Y.Khan	4	5	2	5
D.G.Khan	3	8	9	7
M.Garh	4	7	6	8
Rajan Pur	3	0	0	0
Layyah	3	8	0	3

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

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.

- 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

- Eradicate weeds.
- Conduct Pest Scouting at least twice a week.
- Use *Chrysoperla* Cards @ 80-90 cards per acre having 20-25 eggs/card
- Apply among the following recommended insecticide at ETL and repeat the spray with alternate insecticides if required;

Sr#	CHEMICAL NAME	DOSE (Per Acre)
1	Flonicamid 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

- Conduct Pest Scouting regularly at least twice a week.
- Avoid intercropping of cotton crop with vegetables.
- 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
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 5% SC	480 ml
2	Acetamaprid	125 gm
3	Chlorpyrifos	800-1000ml

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.
5. 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

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