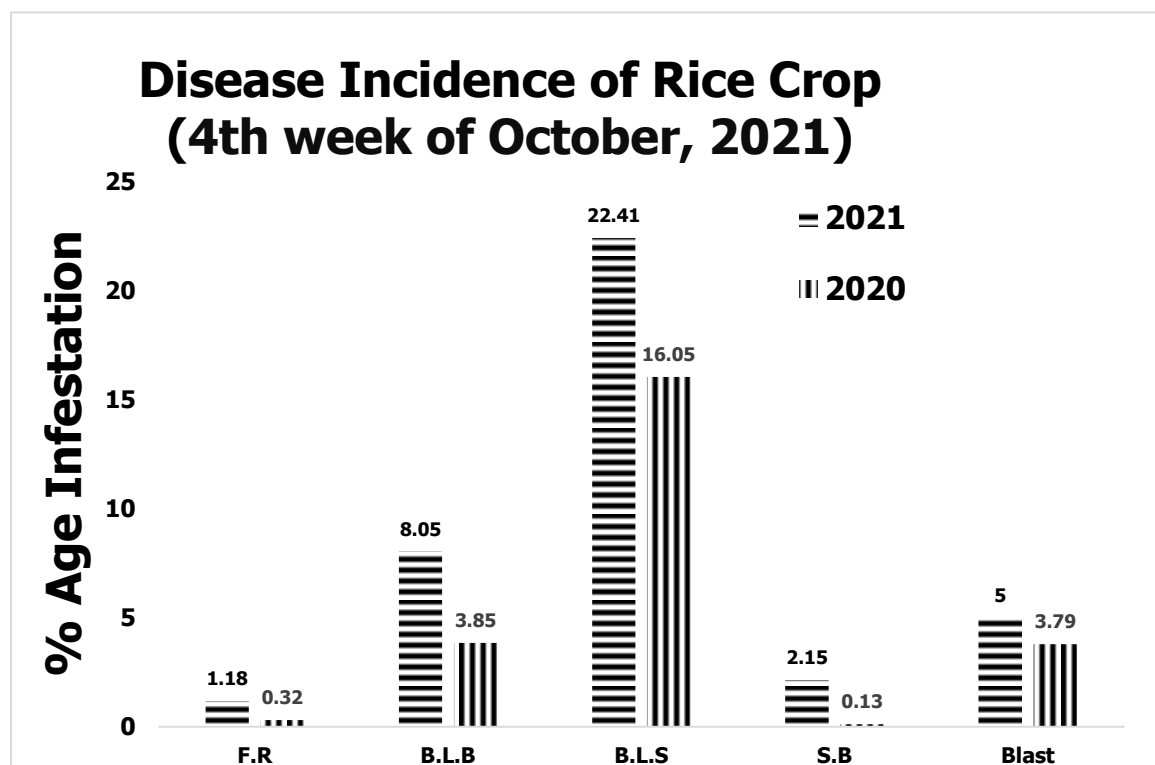
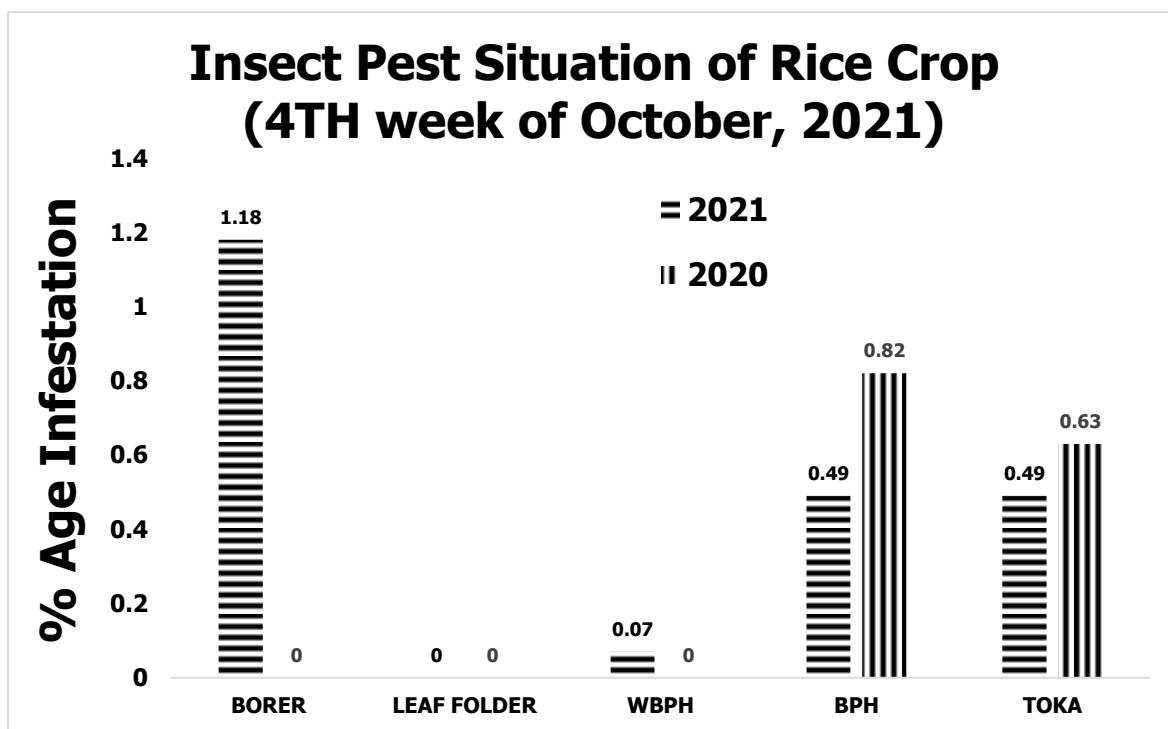


GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 4TH WEEK OF OCTOBER, 2021



PEST SITUATION ON RICE CROP IN PUNJAB DURING 4th WEEK OF OCTOBER, 2021

Pest Situation of Rice 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	RICE BORER	1.18	14.09	2.26	16.84	0.00	7.45	Increasing
2	LEAF FOLDER	0.00	3.4	0.34	10.34	0.00	4.9	-
3	WPBH	0.07	2.36	0.14	2.33	0.00	1.20	Sustaining
4	BPH	0.49	8.19	0.68	9.99	0.82	7.26	Decreasing
5	TOKA	0.49	20.26	0.68	21.42	0.63	18.07	Decreasing
6	FOOT ROT	1.18	-	1.16	-	0.32	-	Increasing
7	B.L.B	8.05	-	7.53	-	3.85	-	Increasing
8	B.L.S	22.41	-	23.34	-	16.05	-	Increasing
9	SHEAT H BLIGHT	2.15	-	2.05	-	0.13	-	Increasing
10	BLAST	5	-	6.3	-	3.79	-	Increasing
NO. OF TOTAL SPOTS VISITED		1,441						
TOTAL AREA VISITED (Acres)		8,516						

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Dunya Pur	40.00	6	Jahanain	20.00
2	Kehror Pacca	33.33	7	Lodhran	20.00
3	Mian Channu	28.57	8	Minchinabad	7.14
4	Kabirwala	25.00	9	18-Hazari	4.00
5	Khanewal	20.00			

Tehsil wise percentage of hot spots of Brown Plant Hopper

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Baddomalhi	7.41	3	Lahore	5.13
2	Minchinabad	7.14	4	Ferozwala	1.89

Tehsil wise percentage of hot spots of White-Backed Plant Hopper

Sr.	TEHSIL	%AGE
1	Minchinabad	3.57

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Noshehra Virkan	14.29	4	M.B.Din	3.70
2	Lahore	5.13	5	Ferozwala	1.89
3	Phalia	4.55			

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jatoi	37.04	4	Lodhran	20.00
2	Kehror Pacca	33.33	5	Dunya Pur	20.00
3	Muzaffargarh	30.00			

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Narang Mandi	72.73	15	Daska	13.64
2	Kharian	66.67	16	Ferozwala	13.21
3	Gujrat	52.00	17	Gujranwala	12.50
4	Sarai Alamgir	50.00	18	kamoke	12.50
5	Jalal Pur Jattan	44.44	19	Pasrur	10.00
6	Malikwal	38.46	20	D.G Khan	10.00
7	Baddomalhi	33.33	21	Shakargarh	7.69
8	Zafarwal	32.50	22	Khushab	7.69
9	Phalia	31.82	23	Shorkot	5.88
10	M.B.Din	25.93	24	Pindi Bhattian	5.26
11	Sialkot	23.08	25	Lahore	5.13
12	Narowal	19.05	26	18-Hazari	4.00
13	Sambrial	14.29	27	Kamalia	3.85
14	Pattoki	14.29			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jatoi	100.00	31	Muridke	23.53
2	Sahiwal	80.00	32	Pirmahal	22.22
3	Sarai Alamgir	75.00	33	Kot Addu	21.74
4	Narang Mandi	63.64	34	Shahpur	21.43
5	Pindi Bhattian	63.16	35	kamoke	20.83
6	Burewala	60.00	36	Ferozwala	20.75
7	Hafizabad	53.70	37	Bhakkar	20.00
8	Jalal Pur Jattan	44.44	38	Jahanain	20.00
9	Quaidabad	41.67	39	Vehari	20.00
10	Shorkot	41.18	40	Narowal	19.05
11	Lahore	41.03	41	Minchinabad	17.86
12	Khanewal	40.00	42	Sheikhupura	15.63
13	Malikwal	38.46	43	Kasur	13.04
14	Baddomalhi	37.04	44	Shahkot	12.50
15	M.B.Din	37.04	45	Pakpattan	12.50
16	Gujrat	36.00	46	Lalian	11.76
17	Noshehra Virkan	35.71	47	Sangla Hill	11.11
18	Pattoki	34.29	48	Safdarabad	10.34
19	Wazirabad	33.33	49	Bhowana	10.00
20	Kharian	33.33	50	Sambrial	9.52
21	Kot Momin	33.33	51	Nankana Sahib	9.09
22	Zafarwal	32.50	52	Chiniot	9.09
23	Gujranwala	31.25	53	Alipur	8.00
24	Khushab	30.77	54	Sialkot	7.69
25	Muzaffargarh	30.00	55	Sahiwal	6.67
26	Mian Channu	28.57	56	Chunian	4.00
27	Phalia	27.27	57	Kamalia	3.85
28	Shakargarh	26.92	58	Jaranwala	3.03
29	Kabirwala	25.00	59	Chak Jhumra	2.63
30	18-Hazari	24.00			

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Malikwal	23.08	7	Muridke	11.76
2	Sahiwal	20.00	8	Depalpure	11.76
3	Narang Mandi	18.18	9	Ferozwala	9.43
4	M.B.Din	14.81	10	Sahiwal	6.67
5	Phalia	13.64	11	Sheikhupura	6.25
6	Pakpattan	12.50			

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	50.00	16	Shorkot	11.76
2	Multan	44.44	17	D.G Khan	10.00
3	Mailsi	40.00	18	Kasur	8.70
4	Kot Momin	33.33	19	Pattoki	8.57
5	Shujabad	25.00	20	18-Hazari	8.00

6	Depalpure	23.53	21	Malikwal	7.69
7	Zafarwal	22.50	22	Bhakkar	6.67
8	Pirmahal	22.22	23	Wazirabad	5.56
9	Kot Radha Kishan	20.00	24	Pindi Bhattian	5.26
10	Vehari	20.00	25	Phalia	4.55
11	Burewala	20.00	26	Pakpattan	4.17
12	Taunsa	20.00	27	Shakargarh	3.85
13	Ferozwala	16.98	28	M.B.Din	3.70
14	Chunian	16.00	29	Hafizabad	1.85
15	Minchinabad	14.29			

Meteorological data of the current week 2020-2021

METEOROLOGICAL DATA FOR THE 4TH WEEK OF OCTOBER, 2021								
Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	29.6	15.3	62.0	Teraces	31.1	16.12	70.52	0
Hafizbad	30.0	17.0	52.0	0.0	31.0	16.0	68.0	0.0
Stalkot	36.0	28.0	56.2	10.0	34.5	26.7	61.7	0.0
Narowal	27.3	14.4	80.6	116.0	29.0	14.1	68.0	0.0
Gujrat	27.7	17.0	42.0	30.0	33.13	21.16	67	0
M.B.Din	30.2	19.3	0.7	29.0	33.0	21.16	67	0.0
Lahore	21.3	17.7	54.0	2.2	27.9	20.9	57.7	1.3
Sheikhupura	30.5	18.2	46.0	NIL	31.4	17.5	45.0	NIL
Ferozwala	32.0	15.0	53.8	11.0	30.9	16.9	58.3	-
Nankana	28.6	17.9	45.5	0.0	31.5	16.0	31.0	0.0
Kasur	28.3	18.3	43.4	3.6	32.1	15.1	38.7	0.0
Faisalabad	33.0	19.0	74.1	4.2	34.6	16.2	66.7	
Jhang	21.8	9.5	76.0		22.87	6.5	68.5	
Toba Tek Singh	29.60	63.74	80.43		34.66	15.29	83.14	
Chiniot	35.0	19.0	34.0	0.0	32.0	20.0	46.0	0.0
Multan	29.6	17.4	66.9	0.0	30.4	16.0	73.7	0.0
Khanewal	30.0	17.6	69.6	0.0	31.0	16.8	71.6	0.0
Vehari	31.0	18.9	64.1	0.0	31.4	17.4	70.6	0.0
Lodhran	28.7	19.0	69.5	0.0	31.8	17.7	70.9	0.0
Sahiwal	29.5	16.0	65.0	0.0	33.0	16.0	73.0	0.0
Pakpattan	30.0	17.0	64.0	0.0	34.0	17.6	68.0	0.0
Okara	31.0	16.5	62.0	0.0	31.8	22.0	77.6	0.0
Bahawalpur	30.3	17.9	62.3	23.5	31.6	16.8	53.6	0.0
Bahawalnagar	32.9	18.1	60.2	0.0	33.2	19.0	58.7	0.0
R.Y.Khan	32.6	19.5	66.7	0.0	36.9	21.1	59.6	0.0
D.G. Khan	32.0	16.4	57.2	0.0	33.9	18.0	49.8	0.0
Muzaffar Garh	33.8	20.0	57.1	3.0	33.8	21.5	45.9	2.0
Rajanpur	34.2	18.1	46.9	0.0	34.3	18.7	56.7	0.0
Layyah	32.1	19.5	75.5	0.0	31.4	15.9	62.0	9.0
TOT/AVG	30.29	19.35	58.20	9.30	32.01	17.72	61.69	0.51

Summary of weather forecast

Weather forecast for next 7 day in rice zone

Division	Dated	01-Nov	02-Nov	03-Nov	04-Nov	05-Nov	06-Nov	07-Nov
Faisalabad	Max.Temp.	30	29	29	30	31	31	31
	Min.Temp.	14	15	16	17	17	21	21
	Humidity %	23	32	32	16	17	16	16
Gujranwala	Max.Temp.	28	28	27	28	29	29	29
	Min.Temp.	12	14	15	16	16	20	20
	Humidity %	31	28	36	22	23	22	21
Lahore	Max.Temp.	27	26	26	26	27	29	30
	Min.Temp.	14	16	16	17	18	21	21
	Humidity %	40	43	56	20	22	21	21
Sargodha	Max.Temp.	30	28	28	29	30	31	31
	Min.Temp.	12	18	14	16	16	19	19
	Humidity %	21	28	31	17	19	17	17
Multan	Max.Temp.	31	30	31	32	33	33	33
	Min.Temp.	16	14	15	16	17	20	19
	Humidity %	21	26	29	15	15	16	12
Average Region	Max.Temp.	29.4						
	Min.Temp.	16.8						
	Humidity %	24.1						

Overall weather for seven days in rice zone during next week will decrease the temperature and Relative Humidity.

Forecast of Rice Pests:

Borer: This pest flourishes best in warm humid climate with optimum temperature 17-30 °C with relative humidity between 45-80%.The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this pest.**

Leaf Folder: This pest flourishes best in warm humid climate with optimum temperature 25-30°C. The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this pest.**

White-backed plant hopper: This pest flourishes best in warm humid climate with optimum temperature 25-29°C with relative humidity between 80-90%.The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. (Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this pest.**

Brown plant hopper: This pest flourishes best in warm humid climate with optimum temperature 28-30°C with relative humidity below 80-90%.The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this pest.**

Toka: This pest flourishes best in warm humid climate with optimum temperature 24-40°C with relative humidity between 30-80%.The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this pest.**

Foot rot: High humidity and cloudy weather during heading stage are favorable for the development of foot rot of rice. The fungus have a wide range of temperature for optimum growth which is between 30-35 °C. The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may decrease during the coming week as the temperature remains not favorable for the development of this disease.**

Bacterial Leaf Blight: Heavy rain, heavy dew, flooding, deep irrigation water are favorable factors for the development of disease. Temperature for optimum growth is between 25-34 °C with relative humidity above 70%. The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this disease.**

Brown Leaf spots: Non-flooded and nutrient deficient soils or soils with accumulation of toxic substances are favorable for the development of disease. Temperature for optimum growth is between 16-36 °C with relative humidity from 86-100%. The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this disease.**

Sheath Blight: Crop plants during rainy season are more vulnerable to the disease. Temperature for optimum growth is between 28-32 °C with relative humidity from 85-100%. The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may decrease during the coming week as the temperature remains not favorable for the development of this.**

Blast: Intermittent drizzles, cloudy weather, more of rainy days, Low night temperature and longer duration of dew are favorable factors for the development of disease. Temperature for optimum growth is between 25-30 °C with relative humidity between 93-99%. The current weather conditions on overall Punjab basis (temp. Max. 30.29 °C, Min. 19.35 °C with R. humidity 58.20%) & forecast for the next week temp. Max. 29.4°C, Min. 16.8°C with humidity 24.1%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may increase during the coming week as the temperature remain favorable for the development of this disease.**

RECOMMENDATION

RICE BORER MANAGEMENT

- Handpick and destroy egg masses.
- Install light traps up to September to monitor moth population of stem borers.
- Use balanced Fertilizers (NPK) within 45 days after transplanting of nursery.
- Complete application of nitrogen up to 31st August because due to late application of nitrogenous fertilizer, the plant becomes succulent and dark-green which attracts the insects, and helps in their rapid multiplication along with increasing disease incidence.

BOWN LEAF SPOT MANAGEMENT

- Avoid water stress before maturity.
- Control the disease with one of the following pesticides.

S#	Common Name	Brand Name	Dose / Acre
1	Propineb 70 WP	Gift, Cover, Protest	800 gm
2	Mancozeb 80 WP	Shelter, Dithane-M	800 gm
3	Propiconazole 25 EC	Tilt	80 ml

FOOT ROT MANAGEMENT

- Uproot the diseased plants and destroy them.
- Use Potash 1 Bag within 14 days of transplanting.
- Flooding of Copper Sulphate 1.5-2 Kg/Acre.

BACTERIAL LEAF BLIGHT MANAGEMENT

- Use disease free seeds for next crop.
- Spray copper based fungicides without delay when disease incidence is observed.

PADDY BLAST MANAGEMENT

- For leaf blast, re-flood if field has been drained. Maintain water level at 3-4 inches to ensure that soil is covered.
- Avoid late use of nitrogenous fertilizers.
- Control the disease with one of the following fungicides;

S#	Common Name	Brand Name	Dose / Acre
1	Kasugamycin 6% WP	Fork	250 gm
2	Trifloxystrobin+Tebuconazole 75%WP	Nativo	65 gm
3	Azoxystrobin 25 % SC	Primacy	200 ml
4	Difenoconazole 250 EC	Score	125 ml

ECONOMIC THRESHOLD LEVELS OF RICE PESTS

INSECT PESTS	ECONOMIC THRESHOLD LEVELS
Borers (White, Yellow & Pink)	0.5% attack on rice nursery while 8-10 Moth/Trap/Night & 5% dead heart on rice crop.
Toka	3 per net on rice nursery & 5 on rice crop.
Leaf Folder	2 rolled leaves per plant in July-August & 3 rolled leaves per plant in September-October.
Brown Plant Hopper	15 Nymphs or Adults per plant in July-August & 20 Nymphs or Adults per plant in September-October. Or 7-10 Nymphs or Adults per net
White Backed Plant Hopper	15 Nymphs or Adults per plant in July-August & 20 Nymphs or Adults per plant in September-October. Or 7-10 Nymphs or Adults per net
Hispa	1 per plant
Diseases	On appearance