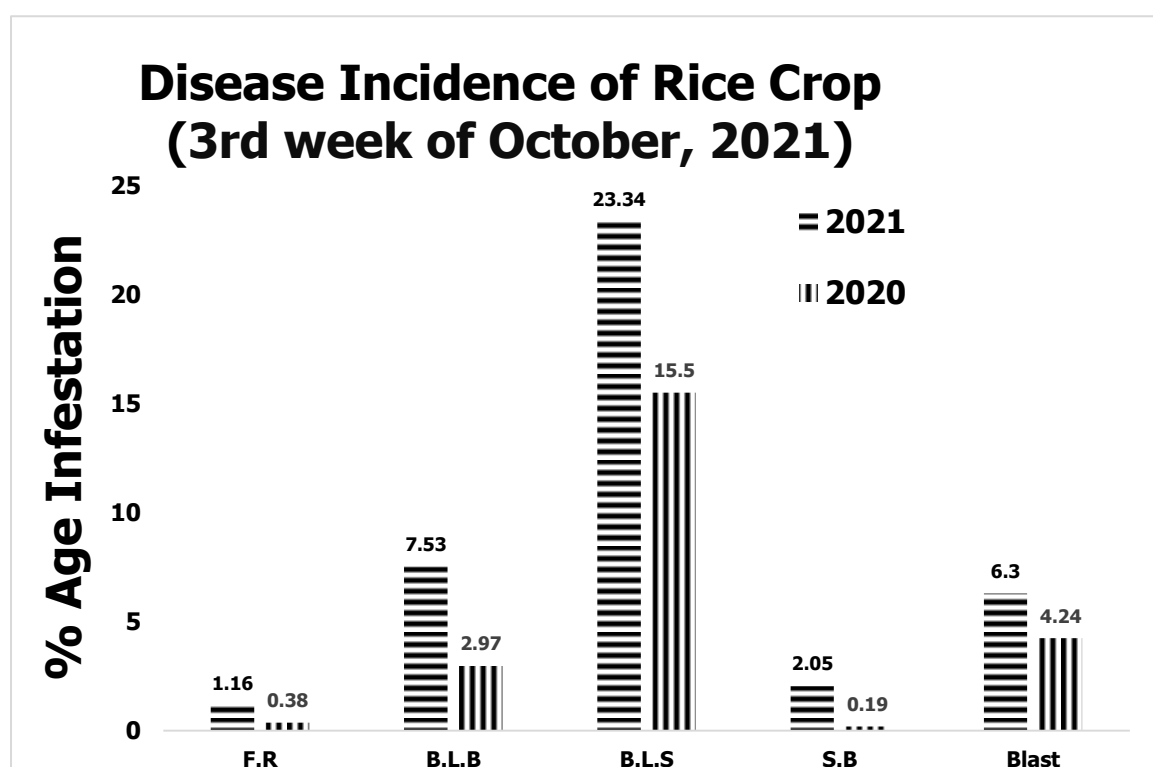
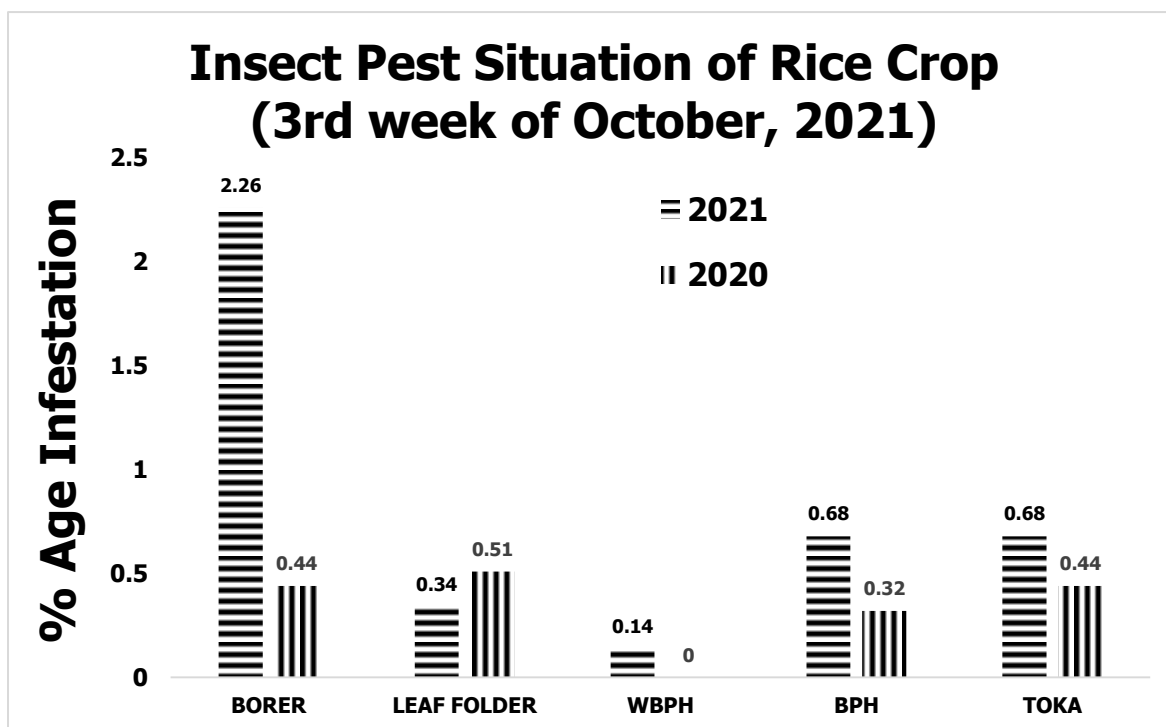


## GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 3RD WEEK OF OCTOBER, 2021



## PEST SITUATION ON RICE CROP IN PUNJAB DURING 3<sup>rd</sup> 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	2.26	16.84	1.66	15.13	0.44	7.71	Increasing
2	LEAF FOLDER	0.34	10.34	0.83	13.41	0.51	7.97	Sustaining
3	WPBH	0.14	2.33	0.00	0.77	0.00	1.71	Sustaining
4	BPH	0.68	9.99	0.51	7.92	0.32	4.05	Sustaining
5	TOKA	0.68	21.42	0.32	22.67	0.44	17.33	Sustaining
6	FOOT ROT	1.16	-	1.72	-	0.38	-	Increasing
7	B.L.B	7.53	-	6.90	-	2.97	-	Increasing
8	B.L.S	23.34	-	23.31	-	15.5	-	Increasing
9	SHEAT H BLIGHT	2.05	-	3.32	-	0.19	-	Increasing
10	BLAST	6.3	-	6	-	4.24	-	Increasing
NO. OF TOTAL SPOTS VISITED			1,461					
TOTAL AREA VISITED (Acres)			9,053					

### Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kehror Pacca	60.00	7	Lodhran	33.33
2	Jahanain	50.00	8	Minchinabad	17.86
3	Kabirwala	50.00	9	Shujabad	16.67
4	Khanewal	42.86	10	Shorkot	10.00
5	Mian Channu	40.00	11	18-Hazari	8.00
6	Dunya Pur	40.00	12	Depalpure	6.67

### Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Multan	7.69	4	M.B.Din	2.50
2	Malikwal	6.67	5	Lahore	1.92
3	Phalia	5.88	6		

### Tehsil wise percentage of hot spots of Brown Plant Hopper

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Lahore	13.46	3	Shakargarh	4.55
2	Minchinabad	7.14			

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

Sr.	TEHSIL	%AGE
1	Minchinabad	7.14

### Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Noshehra Virkan	12.50	4	Phalia	5.88
2	M.B.Din	7.50	5	Lahore	5.77
3	Wazirabad	5.88			

### Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kehror Pacca	40.00	4	Lodhran	16.67
2	Jatoi	40.00	5	Muzaffargarh	15.00
3	Dunya Pur	20.00			

### Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Baddomalhi	45.45	14	Pasrur	11.11
2	Gujranwala	37.50	15	Kabirwala	11.11
3	Zafarwal	34.88	16	Kharian	10.00
4	Narowal	33.33	17	Kot Radha Kishan	10.00
5	Kharian	33.33	18	18-Hazari	9.52
6	Sialkot	31.03	19	Gujrat	9.09
7	Malikwal	26.67	20	Shahpur	8.33
8	M.B.Din	25.00	21	Ferozwala	8.00
9	Phalia	23.53	22	Sambrial	7.69
10	Pasrur	22.22	23	Sahiwal	4.17
11	Jalal Pur Jattan	20.00	24	Wazirabad	4.00
12	Ferozwala	17.65	25	kamoke	3.45
13	Daska	16.67	26	Muridke	2.70

### Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jatoi	100.00	29	Gujranwala	25.00
2	Sahiwal	90.91	30	Sangla Hill	25.00
3	Hafizabad	66.67	31	Shahkot	25.00
4	Vehari	60.00	32	Bhowana	25.00
5	Baddomalhi	59.09	33	Muridke	22.22
6	Pindi Bhattian	56.52	34	Khushab	21.43
7	Jalal Pur Jattan	50.00	35	Bhakkar	20.00
8	Sarai Alamgir	50.00	36	Kabirwala	20.00
9	Ferozwala	50.00	37	Mailsi	20.00
10	Quaidabad	42.86	38	Depalpure	20.00
11	Phalia	41.18	39	Chak Jhumra	18.42
12	Gujrat	40.00	40	Chiniot	17.65
13	Burewala	40.00	41	Lahore	17.31
14	Pattoki	38.89	42	Shorkot	15.00
15	M.B.Din	37.50	43	Sambrial	14.81
16	Shakargarh	36.36	44	Nankana Sahib	14.71
17	Wazirabad	35.29	45	Khanewal	14.29
18	Zafarwal	34.88	46	Daska	12.50

19	Kharian	33.33	47	Kot Momin	12.50
20	Malikwal	33.33	48	Alipur	12.00
21	Pirmahal	33.33	49	Safdarabad	9.38
22	Noshehra Virkan	31.25	50	Jaranwala	9.38
23	Mian Channu	30.00	51	Kamalia	8.33
24	Sheikhupura	29.03	52	Kamonke	6.90
25	Narowal	28.57	53	Sialkot	6.90
26	Minchinabad	28.57	54	Pasrur	5.56
27	18-Hazari	28.00	55	Chunian	5.41
28	Lalian	27.27	56	Kasur	3.85

### Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Malikwal	20.00	7	Phalia	11.76
2	Depalpure	20.00	8	Muridke	11.11
3	Sahiwal	18.18	9	Sheikhupura	6.45
4	Sharqpur	16.67	10	Ferozwala	5.88
5	M.B.Din	12.50	11	Sialkot	3.45
6	Pakpattan	12.50			

### Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Pirmahal	44.44	16	Kasur	15.38
2	Vehari	40.00	17	Kot Momin	12.50
3	Multan	38.46	18	D.G Khan	12.50
4	Sahiwal	36.36	19	Bhera	11.11
5	Depalpure	33.33	20	Chunian	10.81
6	Ferozwala	29.41	21	Sargodha	8.33
7	Jalal Pur	25.00	22	Shahpur	7.69
8	Kot Radha Kishan	22.22	23	Hafizabad	7.41
9	Shorkot	20.00	24	Bhakkar	6.67
10	Mailsi	20.00	25	Malikwal	6.67
11	Taunsa	20.00	26	Noshehra Virkan	6.25
12	Zafarwal	18.60	27	M.B.Din	5.00
13	Minchinabad	17.86	28	Pakpattan	4.17
14	Pattoki	16.67	29	18-Hazari	4.00
15	Shujabad	16.67	30	Nankana Sahib	2.94

## Meteorological data of the current week 2020-2021

METEOROLOGICAL DATA FOR THE 3RD WEEK OF OCTOBER, 2021								
Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	33.6	19.3	62.0	5.0	36.84	19.71	69.11	0
Hafizbad	33.5	20.0	70.0	22.0	34.0	17.5	68.0	0.0
Sialkot	36.0	28.0	68.9	10.0	34.5	26.7	66.2	0.0
Narowal	30.7	19.3	78.7	0.0	31.1	17.0	67.9	0.0
Gujrat	33.4	21.1	44.0	0.0	34.33	19.33	67	0
M.B.Din	31.5	19.9	0.7	10.0	34.3	20	67	-
Lahore	30.6	26.4	49.4	0.8	32.7	24.9	67.1	1.6
Sheikhupura	30.2	21.0	44.0	0.0	33.0	20.8	43.0	0.0
Ferozwala	32.0	20.0	55.4	0.0	30.8	21.0	59.8	0.0
Nankana	33.1	18.0	28.0	0.0	34.4	21.9	30.5	0.0
Kasur	33.6	20.1	35.9	0.0	36.3	26.3	51.6	0.0
Faisalabad	38.0	30.0	52.0	0.0	36.0	26.6	64.0	
Jhang	38.9	30.2	53.8	0	36.9	25.76	62.3	0.0
Toba Tek Singh	38.29	26.71	80.00	0.00	39.37	26.81	82.29	T
Chiniot	35.0	19.0	34.0	0.0	32.0	20.0	46.0	0.0
Multan	35.1	16.6	66.7	0.0	34.6	18.4	70.4	0.0
Khanewal	35.9	18.6	66.9	0.0	35.3	19.6	64.3	0.0
Vehari	34.9	18.3	59.9	0.0	34.6	19.9	66.8	0.0
Lodhran	35.2	18.4	61.1	0.0	34.0	19.2	68.8	0.0
Sahiwal	35.0	22.0	67.0	0.0	35.0	20.0	64.0	0.0
Pakpattan	36.0	23.0	71.0	0.0	35.0	22.0	53.9	0.0
Okara	34.0	24.0	72.0	0.0	36.2	23.7	76.3	0.0
Bahawalpur	36.1	18.2	54.1	0.0	36.3	18.4	54.6	0.0
Bahawalnagar	35.2	20.3	50.2	0.0	36.5	20.2	53.3	0.0
R.Y.Khan	36.1	22.6	47.1	0.0	36.5	22.8	44.3	0.0
D.G. Khan	36.4	19.4	55.6	0.0	37.0	22.6	49.5	0.0
Muzaffar Garh	35.0	20.5	57.0	3.0	35.1	21.8	47.0	2.0
Rajanpur	37.9	22.0	54.7	0.0	37.3	20.1	57.9	0.0
Layyah	31.7	20.9	71.1	0.0	33.2	16.7	62.3	1.0
TOT/AVG	34.58	21.51	55.56	1.75	34.94	21.36	60.17	0.18

### Summary of weather forecast

#### Weather forecast for next 7 day in rice zone

Division	Dated	22- Oct	23- Oct	24- Oct	25- Oct	26- Oct	27- Oct	28- Oct
Faisalabad	Max.Temp.	35	26	23	26	28	30	32
	Min.Temp.	20	18	18	16	14	15	18
	Humidity %	32	65	70	49	34	25	21
Gujranwala	Max.Temp.	33	21	23	25	26	28	28
	Min.Temp.	18	18	17	15	14	15	16
	Humidity %	33	84	68	60	47	36	25
Lahore	Max.Temp.	32	24	23	24	25	26	26
	Min.Temp.	19	17	17	16	16	16	17
	Humidity %	40	82	72	70	57	53	25

<b>Sargodha</b>	Max.Temp.	33	26	23	27	29	30	30
	Min.Temp.	17	18	16	14	12	14	17
	Humidity %	27	59	65	41	31	24	19
<b>Multan</b>	Max.Temp.	35	30	27	28	30	32	34
	Min.Temp.	22	19	18	18	13	15	18
	Humidity %	32	41	48	39	34	27	11
<b>Average Rice Region</b>	<b>Max.Temp.</b>	<b>27.9</b>						
	<b>Min.Temp.</b>	<b>16.6</b>						
	<b>Humidity %</b>	<b>44.2</b>						

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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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. 34.58 °C, Min. 21.51 °C with

R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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.**

**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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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 remain favorable for the development of this disease.**

**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. 34.58 °C, Min. 21.51 °C with R. humidity 55.56%) & forecast for the next week temp. Max. 27.9°C, Min. 16.6°C with humidity 44.2%. 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 3-4inches 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