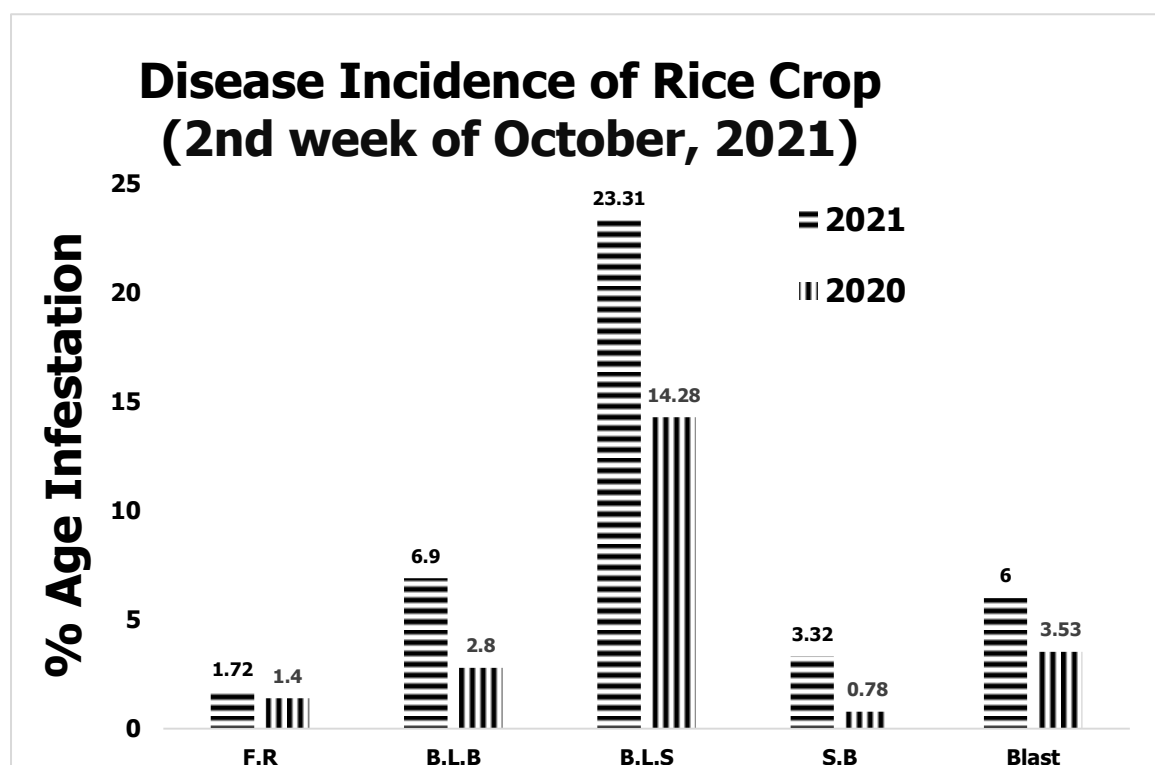
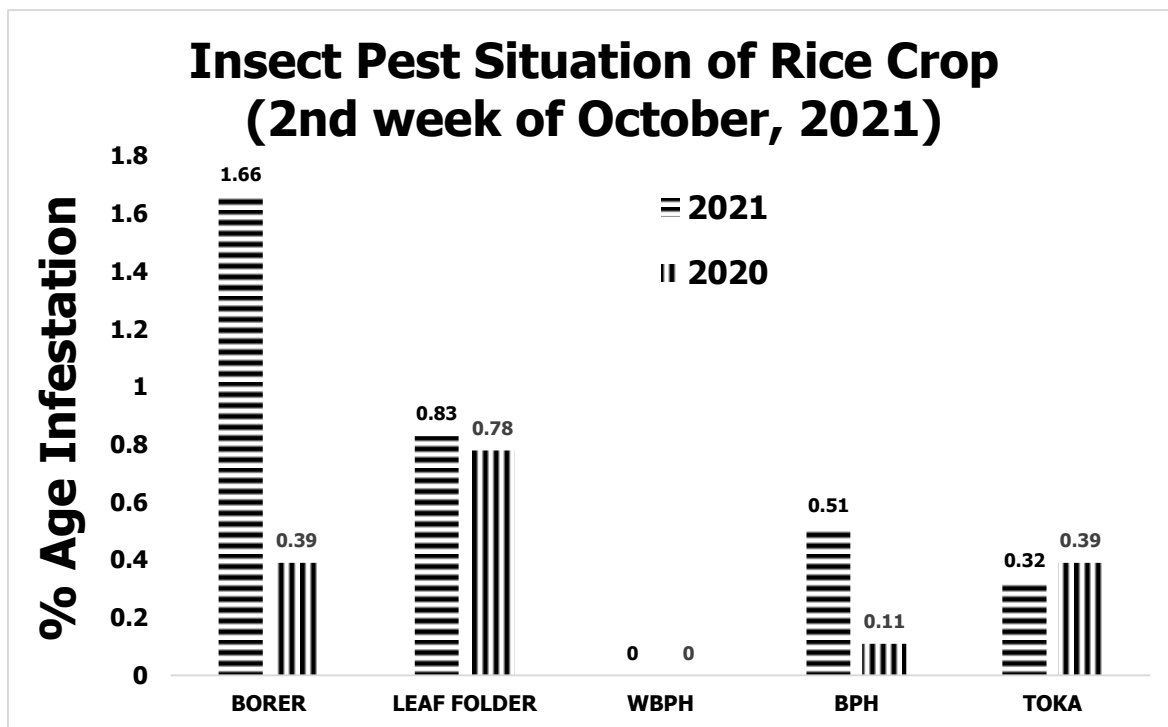


GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 2ND WEEK OF OCTOBER, 2021



PEST SITUATION ON RICE CROP IN PUNJAB DURING 2ND 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	1.66	15.13	1.71	14.98	0.39	8.45	Increasing
2	LEAF FOLDER	0.83	13.41	1.21	16.25	0.78	10.47	Sustaining
3	WPBH	-	0.77	0.06	1.46	-	1.06	-
4	BPH	0.51	7.92	0.06	4.63	0.11	2.69	Increasing
5	TOKA	0.32	22.67	0.45	21.08	0.39	18.81	Sustaining
6	FOOT ROT	1.72	-	2.67	-	1.40	-	Sustaining
7	B.L.B	6.90	-	6.92	-	2.80	-	Increasing
8	B.L.S	23.31	-	20.19	-	14.28	-	Increasing
9	SHEAT H BLIGHT	3.32	-	3.68	-	0.78	-	Increasing
10	BLAST	6	-	4.7	-	3.53	-	Increasing
NO. OF TOTAL SPOTS VISITED		1,566						
TOTAL AREA VISITED (Acres)		10,109						

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kabirwala	44.44	7	Lodhran	28.57
2	Khanewal	40.00	8	Dunya Pur	20.00
3	Jahanain	40.00	9	Minchinabad	20.00
4	Mian Channu	33.33	10	Multan	18.18
5	R.Y.Khan	33.33	11	Depalpure	3.85
6	Khan pur	33.33			

Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Shakargarh	25.00	4	Gujrat	6.06
2	Multan	18.18	5	Lahore	2.86
3	Sambrial	7.69	6	Ferozwala	2.00

Tehsil wise percentage of hot spots of Brown Plant Hopper

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Minchinabad	12.00	4	Baddomalhi	3.13
2	Shakargarh	6.25	5	Ferozwala	2.00
3	Narowal	3.70	6	Lahore	1.43

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Phalia	4.55	3	Lahore	2.86
2	M.B.Din	3.70	4	Ferozwala	2.00

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jatoi	57.14	8	Mian Channu	11.11
2	Muzaffargarh	40.00	9	Lalian	10.53
3	Lodhran	28.57	10	Khanewal	10.00
4	Kabirwala	22.22	11	Muridke	8.11
5	Jahanain	20.00	12	Depalpure	7.69
6	Dunya Pur	20.00	13	Chiniot	7.14
7	Alipur	20.00	14	Bhowana	4.17

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Narang Mandi	50.00	17	Pasrur	11.11
2	Mailsi	40.00	18	Kabirwala	11.11
3	Daska	39.13	19	Kharian	10.00
4	Malikwal	38.46	20	Kot Radha Kishan	10.00
5	Phalia	31.82	21	18-Hazari	9.52
6	Sialkot	28.57	22	Gujrat	9.09
7	Baddomalhi	28.13	23	Shahpur	8.33
8	M.B.Din	25.93	24	Ferozwala	8.00
9	Sheikhupura	25.00	25	Sambrial	7.69
10	Jalal Pur Jattan	20.00	26	Sahiwal	4.17
11	Zafarwal	19.35	27	Wazirabad	4.00
12	Gujranwala	19.05	28	kamoke	3.45
13	Narowal	18.52	29	Muridke	2.70
14	Kot chutta	15.38	30	Pattoki	2.56
15	Kamalia	13.04	31	Hafizabad	2.33
16	Shorkot	11.76	32	Lahore	1.43

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Quaidabad	100.00	30	Muzaffargarh	30.00
2	Jatoi	100.00	31	Phalia	27.27
3	Sahiwal	86.96	32	Lalian	26.32
4	Safdarabad	83.33	33	Bhera	21.74
5	Burewala	60.00	34	Muridke	21.62
6	Pirmahal	55.56	35	Lahore	21.43
7	Noshehra Virkan	53.33	36	Sangla Hill	21.43
8	Shakargarh	50.00	37	Chak Jhumra	20.69
9	Sarai Alamgir	50.00	38	Bhakkar	20.00
10	Narang Mandi	50.00	39	Vehari	20.00
11	Wazirabad	44.00	40	Kot Addu	20.00
12	Ferozwala	44.00	41	Alipur	20.00
13	Chiniot	42.86	42	Narowal	18.52
14	Kharian	40.00	43	Kamalia	17.39
15	Jalal Pur Jattan	40.00	44	Sheikhupura	16.67
16	Malikwal	38.46	45	Shahkot	16.67
17	Hafizabad	37.21	46	Bhowana	16.67

18	Minchinabad	36.00	47	Nankana Sahib	14.89
19	Zafarwal	35.48	48	kamoke	13.79
20	Shorkot	35.29	49	Khushab	13.33
21	Pindi Bhattian	34.78	50	Kabirwala	11.11
22	Gujranwala	33.33	51	Chunian	10.81
23	M.B.Din	33.33	52	Sharqpur	9.09
24	Pattoki	33.33	53	Pakpattan	8.00
25	18-Hazari	33.33	54	Jaranwala	6.25
26	Kot Momin	33.33	55	Pasrur	5.56
27	Baddomalhi	31.25	56	Kasur	5.26
28	Sambrial	30.77	57	Sialkot	4.76
29	Gujrat	30.30	58	Daska	4.35

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	30.43	9	Wazirabad	12.00
2	Malikwal	23.08	10	Depalpure	11.54
3	Noshehra Virkan	20.00	11	Muridke	10.81
4	Narang Mandi	16.67	12	kamoke	10.34
5	Ferozwala	16.00	13	Pakpattan	8.00
6	M.B.Din	14.81	14	Narowal	3.70
7	Gujranwala	14.29	15	Lahore	2.86
8	Phalia	13.64	16	Sheikhupura	2.78

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Vehari	60.00	18	Bhera	13.04
2	Pirmahal	50.00	19	Pattoki	12.82
3	Jalal Pur	50.00	20	Shakargarh	12.50
4	Sahiwal	43.48	21	Chunian	10.81
5	Khan pur	33.33	22	Shahkot	8.33
6	Multan	27.27	23	Kot Momin	8.33
7	Shorkot	23.53	24	Pakpattan	8.00
8	Depalpure	23.08	25	Kasur	7.89
9	Kot Radha Kishan	20.00	26	Malikwal	7.69
10	Burewala	20.00	27	Bhakkar	6.67
11	Karor	20.00	28	Zafarwal	6.45
12	D.G Khan	20.00	29	18-Hazari	4.76
13	Taunsa	20.00	30	Phalia	4.55
14	Ferozwala	18.00	31	Kamalia	4.35
15	Shujabad	16.67	32	Nankana Sahib	4.26
16	Minchinabad	16.00	33	Wazirabad	4.00
17	Sangla Hill	14.29	34	M.B.Din	3.70

Meteorological data of the current week 2020-2021

METEOROLOGICAL DATA FOR THE 2ND 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	54.3	Teraces	36.84	19.71	69.11	0
Hafizbad	35.0	21.0	60.0	0.0	37.0	19.0	61.0	0.0
Sialkot	36.0	25.3	61.9	0.0	34.5	25.6	63.8	0.0
Narowal	32.4	20.3	79.4	0.0	32.5	17.7	71.8	0.0
Gujrat	34.8	24.5	62.0	0.0	35.33	22.66	71	-
M.B.Din	32.0	22.0	0.7	16.0	35.4	22.66	71	-
Lahore	36.6	30.6	67.7	0.6	37.0	27.9	77.0	1.9
Sheikhupura	35.5	24.7	49.0	NIL	36.3	26.5	48.0	NIL
Ferozwala	37.0	22.0	59.1	-	30.7	21.6	60.4	-
Nankana	34.4	24.0	47.0	0.0	32.7	22.1	31.9	0.0
Kasur	35.0	22.0	44.6	0.0	36.6	21.3	35.3	0.0
Faisalabad	35.8	23.9	69.2	TR	36.3	22.2	64.3	0.0
Jhang	36.6	18.8	49.6	0.0	36.2	25.3	56.8	0.0
Toba Tek Singh	36.56	26.54	84.26	0.0	37.30	19.77	73.00	0.0
Chiniot	33.0	21.0	39.0	0.0	32.0	22.0	41.0	0.0
Multan	35.6	23.6	68.4	0.0	34.4	19.9	65.9	0.0
Khanewal	36.0	23.8	64.6	0.0	35.1	20.5	62.7	0.0
Vehari	36.0	24.1	61.1	0.0	35.9	21.9	60.6	0.0
Lodhran	35.0	23.0	71.0	0.0	34.1	21.1	67.1	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	36.0	23.2	60.3	23.5	37.1	21.6	44.1	0.0
Bahawalnagar	35.0	22.1	55.2	0.0	37.9	20.8	52.6	0.0
R.Y.Khan	36.1	23.2	60.7	0.0	36.7	23.5	47.3	0.0
D.G. Khan	37.6	20.9	55.4	0.0	37.0	22.6	49.8	0.0
Muzaffar Garh	35.0	22.1	58.0	3.0	36.3	22.4	48.8	2.0
Rajanpur	40.5	25.7	50.7	0.0	38.6	24.8	58.2	0.0
Layyah	34.2	22.4	56.6	0.0	33.8	20.6	56.2	0.0
TOT/AVG	35.39	23.07	58.61	1.87	35.51	22.11	58.71	0.18

Weather forecast for next 7 day in rice zone

Division	Dated	15- Oct	16- Oct	17- Oct	18- Oct	19- Oct	20- Oct	21- Oct
Faisalabad	Max.Temp.	35	35	34	33	34	35	35
	Min.Temp.	18	18	19	21	19	20	19
	Humidity %	20	18	27	37	25	18	7
Gujranwala	Max.Temp.	34	24	30	31	32	32	33
	Min.Temp.	17	18	20	20	17	16	19
	Humidity %	28	26	49	43	30	27	17
Lahore	Max.Temp.	33	33	29	30	30	32	32
	Min.Temp.	18	18	20	21	20	17	18
	Humidity %	31	34	59	58	37	34	13
Sargodha	Max.Temp.	35	35	34	33	34	34	35
	Min.Temp.	13	16	17	19	17	16	18
	Humidity %	18	19	24	35	24	17	8
Multan	Max.Temp.	36	36	35	34	35	36	37
	Min.Temp.	16	16	18	20	17	16	17
	Humidity %	16	15	22	31	18	10	5
Average Rice Region	Max.Temp.	33.28						
	Min.Temp.	17.97						
	Humidity %	25.71						

Summary of weather forecast

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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. 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. 35.39 °C, Min.

23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may sustain 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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. 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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. 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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of this pest may sustain 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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. Keeping in view the temperature for current week and weather forecast of next week, **it is predicted that population of**

this pest may sustain 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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. 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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. 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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. 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.**

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. 35.39 °C, Min. 23.08 °C with R. humidity 58.61%) & forecast for the next week temp. Max. 33.28°C, Min. 17.97°C with humidity 25.71%. 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