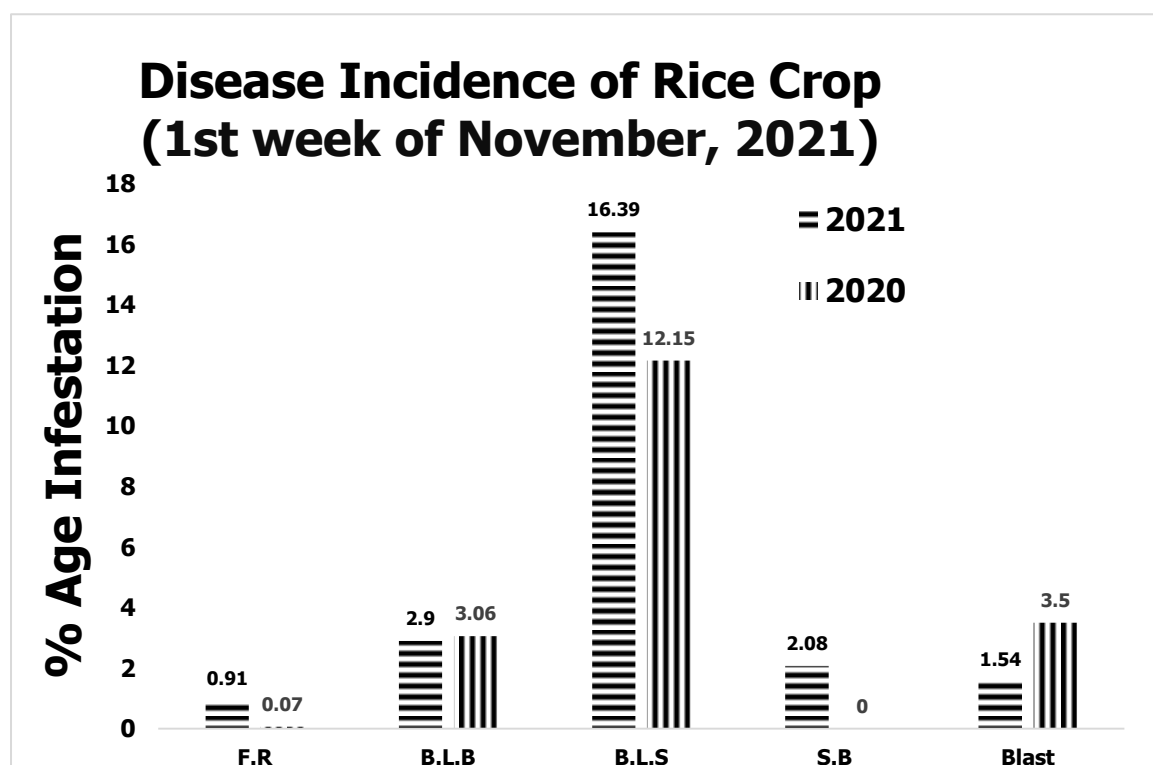
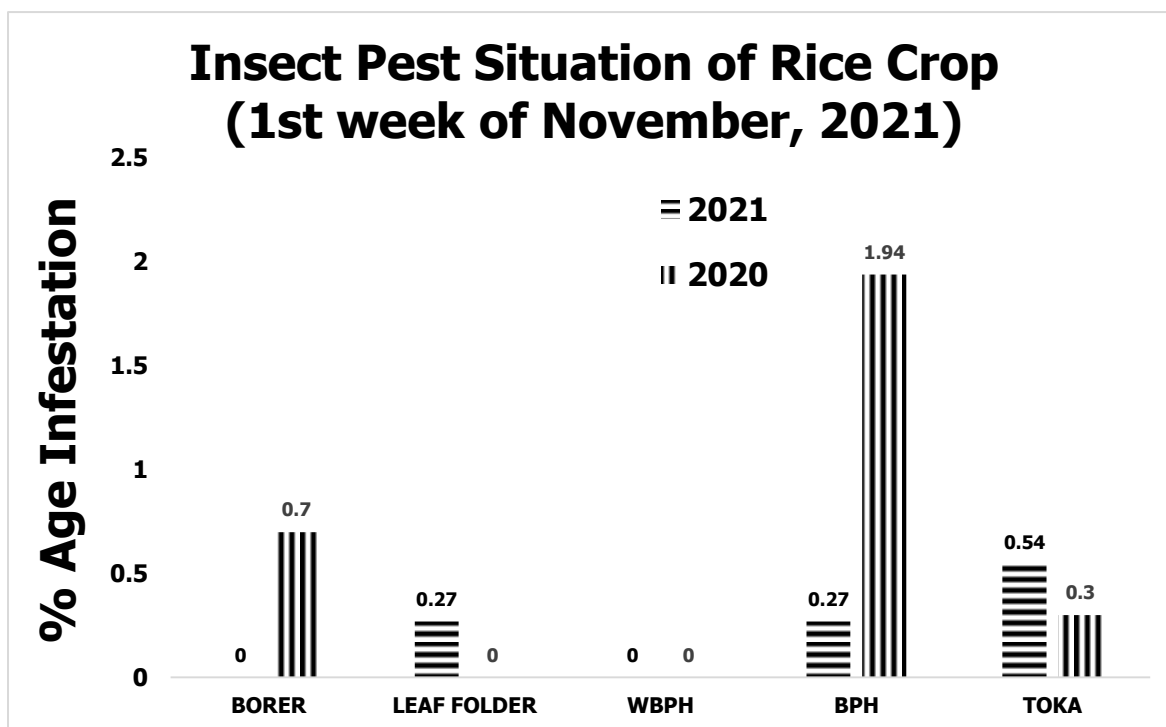


## GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 1ST WEEK OF NOVEMBER, 2021



## PEST SITUATION ON RICE CROP IN PUNJAB DURING 1st WEEK OF November, 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	0.00	8.87	1.18	14.09	0.07	4.17	Sustaining
2	LEAF FOLDER	0.27	2.5	0.00	3.4	0.00	1.9	Sustaining
3	WPBH	-	0.63	0.07	2.36	-	3.50	-
4	BPH	0.27	8.15	0.49	8.19	1.94	8.12	Sustaining
5	TOKA	0.54	14.86	0.49	20.26	0.3	18.03	Sustaining
6	FOOT ROT	0.91	-	1.18	-	0.07	-	Sustaining
7	B.L.B	2.90	-	8.05	-	3.06	-	<b>Increasing</b>
8	B.L.S	16.39	-	22.41	-	12.15	-	<b>Increasing</b>
9	SHEAT H BLIGHT	2.08	-	2.15	-	0.00	-	<b>Increasing</b>
10	BLAST	1.54	-	5	-	3.5	-	Decreasing
<b>NO. OF TOTAL SPOTS VISITED</b>		<b>1,104</b>						
<b>TOTAL AREA VISITED (Acres)</b>		<b>6,542</b>						

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	M.B.Din	1.00	3	Malikwal	1.00
2	Phalia	1.00			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sharqpur	2.00	4	Safdarabad	1.00

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	M.B.Din	2.00	4	Sharqpur	1.00
2	Sambrial	1.00	5	Ferozwala	1.00
3	Phalia	1.00			

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

Sr.	TEHSIL	%AGE
1	Jatoi	10.00

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Malikwal	35.71	6	Narowal	8.33
2	M.B.Din	31.03	7	Ferozwala	7.14
3	Phalia	23.08	8	Baddomalhi	6.67
4	Zafarwal	16.67	9	Pattoki	3.85
5	Shakargarh	10.53	10	Muridke	2.86

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sarai Alamgir	100.00	21	Bhowana	25.00
2	Jatoi	100.00	22	Wazirabad	23.08
3	Pindi Bhattian	60.00	23	Pattoki	23.08
4	Jalal Pur Jattan	55.56	24	Sambrial	22.73
5	Hafizabad	50.00	25	Bhakkar	20.00
6	Kharian	50.00	26	Sahiwal	20.00
7	Quaidabad	50.00	27	Lahore	18.92
8	M.B.Din	41.38	28	Gujranwala	18.18
9	18-Hazari	40.00	29	kamoke	18.18
10	Khushab	40.00	30	Ferozwala	17.86
11	Minchinabad	36.00	31	Pakpattan	15.00
12	Malikwal	35.71	32	Muridke	14.29
13	Gujrat	33.33	33	Narowal	12.50
14	Shakargarh	31.58	34	Kot Radha Kishan	12.50
15	Noshehra Virkan	31.25	35	Lalian	12.50
16	Phalia	30.77	36	Sharqpur	11.43
17	Narang Mandi	28.57	37	Sheikhupura	11.11
18	Chiniot	28.57	38	Safdarabad	10.34
19	Sahiwal	27.27	39	Zafarwal	8.33
20	Baddomalhi	26.67			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Malikwal	21.43	5	Depalpure	15.38
2	M.B.Din	20.69	6	Narang Mandi	14.29
3	Ferozwala	17.86	7	Muridke	8.57
4	Phalia	15.38			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Depalpure	15.38	7	Malikwal	7.14
2	Chunian	14.29	8	Bhakkar	6.67
3	Kot Radha Kishan	12.50	9	Kasur	6.45
4	Ferozwala	10.71	10	Pakpattan	5.00
5	Sahiwal	9.09	11	M.B.Din	3.45
6	Pattoki	7.69			

## Meteorological data of the current week 2020-2021

METEOROLOGICAL DATA FOR THE 1ST WEEK OF NOVEMBER, 2021								
Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	29.6	15.3	62.0	Traces	31.1	16.12	70.52	0
Hafizbad	29.0	16.0	58.0	0.0	30.0	14.0	70.0	0.0
Sialkot	36.0	28.0		10.0	34.5	26.7		
Narowal	26.4	13.0	68.1	0.0	27.3	11.8	67.9	0.0
Gujrat	25.2	15.8	29.0	0.0	29.13	13.14	33	0
M.B.Din	29.1	14.0	0.4	0.0	29.1	13.5	33	0.0
Lahore	32.9	26.6	66.7	0.2	29.0	18.0	52.0	1.5
Sheikhupura	30.2	21.0	44.0		33.0	20.8	43.0	
Ferozwala	27.0	15.0	55.5		29.8	18.6	42.2	
Nankana	28.9	16.4	28.1		28.9	13.9	32.6	
Kasur	27.5	14.0	33.4		30.0	12.3	30.9	
Faisalabad								
Jhang	29.3	16.4	64.1		28.9	16.08	64	
Toba Tek Singh								
Chiniot	30.8	14.9	76.9		35.9	15.3	83.7	
Multan	29.6	16.3	62.6	0.0	30.4	14.6	70.2	0.0
Khanewal	30.6	17.0	61.6	0.0	30.9	15.1	72.3	0.0
Vehari	29.9	17.0	64.3	0.0	30.0	15.4	71.9	0.0
Lodhran	29.0	17.5	64.0	0.0	30.0	21.0	71.7	0.0
Sahiwal	28.0	15.0	62.0	0.0	31.2	12.6	59.5	0.0
Pakpattan	29.0	16.0	63.0	0.0	33.0	14.0	53.3	0.0
Okara	30.0	15.5	62.0	0.0	34.8	16.5	74.9	0.0
Bahawalpur	32.3	15.4	57.3	0.0	32.0	31.1	53.9	0.0
Bahawalnagar	31.7	15.1	66.7	0.0	32.0	15.3	52.6	0.0
R.Y.Khan	32.5	17.1	54.6	0.0	32.3	17.8	59.6	0.0
D.G. Khan	30.9	14.6	59.2	0.0	31.3	15.4	49.8	0.0
Muzaffar Garh	31.8	18.8	57.1	0.0	31.7	15.5	57.5	2.0
Rajanpur	32.4	16.3	42.8	0.0	33.8	15.8	52.8	0.0
Layyah	30.8	14.5	59.2	0.0	31.3	15.4	51.6	0.0
<b>TOT/AVG</b>	<b>30.01</b>	<b>16.76</b>	<b>54.72</b>	<b>0.51</b>	<b>31.16</b>	<b>16.51</b>	<b>56.71</b>	<b>0.18</b>

## Summary of weather forecast

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

Division	Dated	08/11	09/11	10/11	11/11	12/11	13/11	14/11
Faisalabad	Max.Temp.	31	30	30	29	28	29	28
	Min.Temp.	16	14	15	15	14	12	15
	Humidity %	26	25	32	30	24	17	10
Gujranwala	Max.Temp.	29	28	29	28	28	27	27
	Min.Temp.	14	13	12	12	11	10	13
	Humidity %	25	25	25	23	23	21	14
Lahore	Max.Temp.	27	27	27	27	26	26	24
	Min.Temp.	14	14	13	14	12	11	14
	Humidity %	33	32	40	35	33	32	13
Sargodha	Max.Temp.	32	31	30	30	30	29	28
	Min.Temp.	14	13	12	13	10	10	13
	Humidity %	23	22	23	20	18	17	11
Multan	Max.Temp.	32	32	31	30	30	30	30
	Min.Temp.	17	15	15	15	14	12	13
	Humidity %	29	28	26	26	21	15	7
Average Rice Region	Max.Temp.	28.9						
	Min.Temp.	13.25						
	Humidity %	23.5						

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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) &

forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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.**

**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. 30.01 °C, Min. 16.76 °C with R. humidity 54.72%) & forecast for the next week temp. Max. 28.9°C, Min. 13.25°C with humidity 23.5%. 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.**

## 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