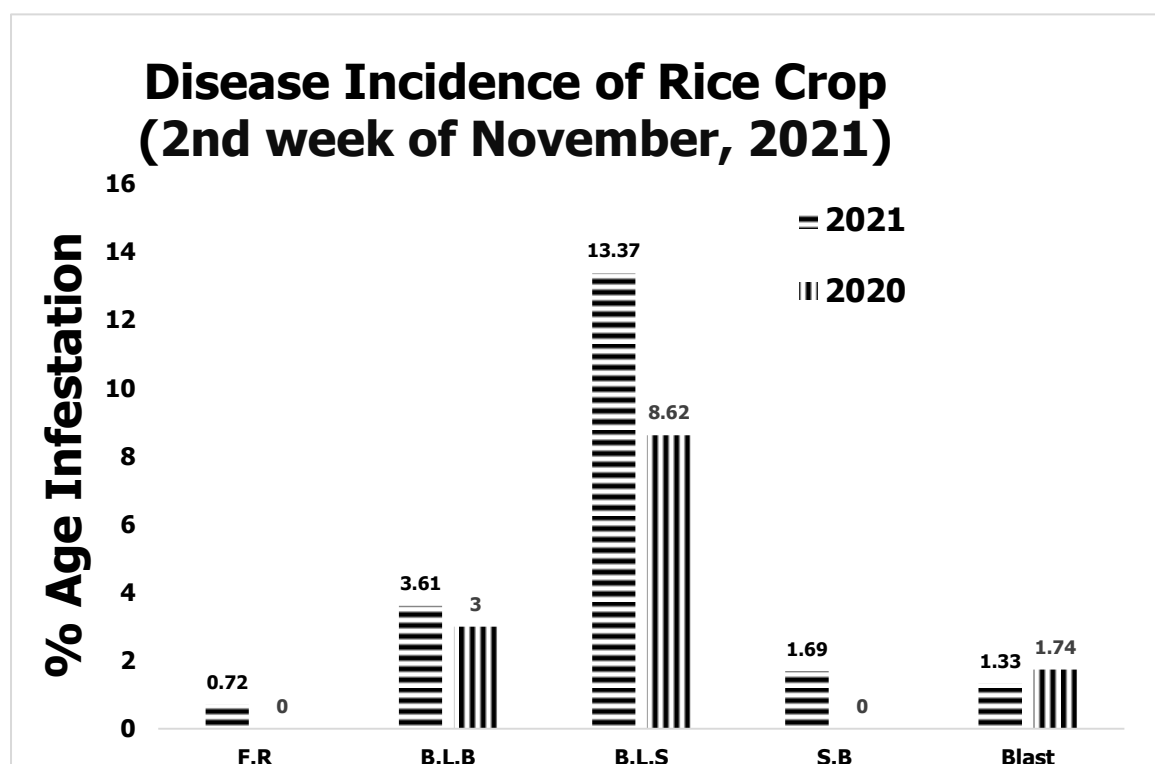
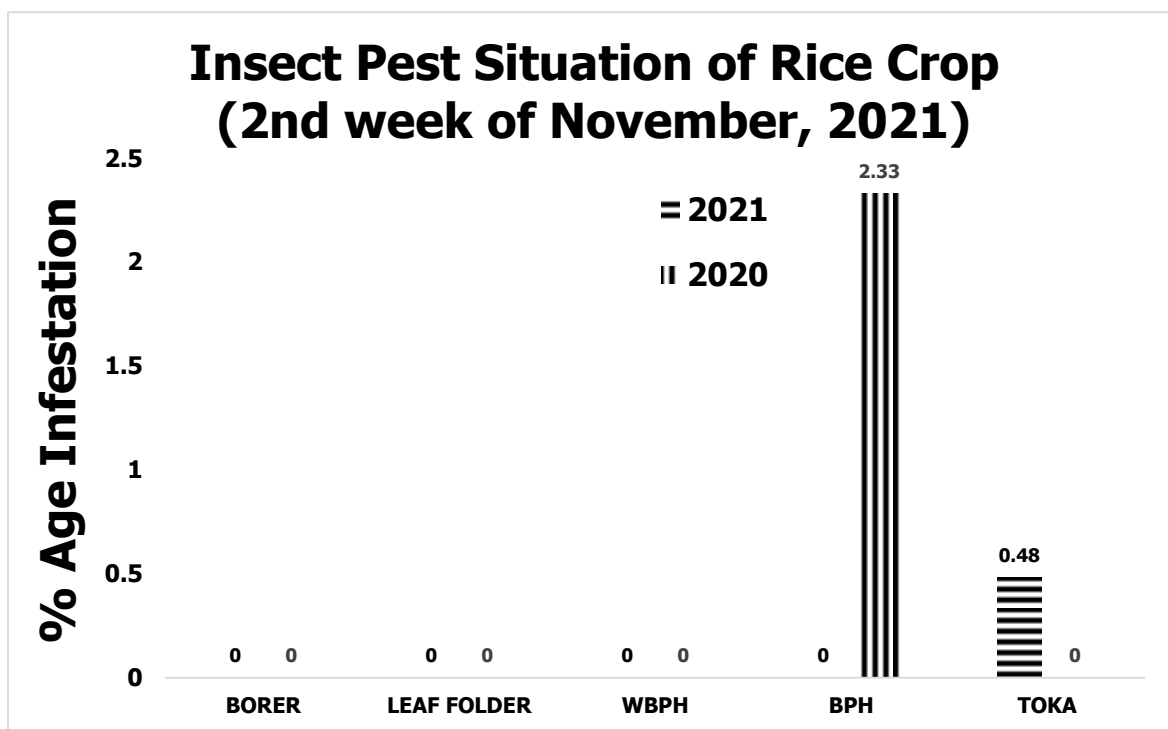


GRAPHICAL PEST SITUATION ON RICE CROP IN PUNJAB DURING 2ND WEEK OF NOVEMBER, 2021



PEST SITUATION ON RICE CROP IN PUNJAB DURING 2nd 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	4.81	0.00	8.87	0.00	2.31	-
2	LEAF FOLDER	0.00	1.68	0.27	2.5	0.00	0.19	-
3	WPBH	0.00	0.48	0.00	0.63	0.00	2.33	-
4	BPH	0.00	7.11	0.27	8.15	2.33	7.17	Decreasing
5	TOKA	0.48	12.41	0.54	14.86	0.00	14.24	Sustaining
6	FOOT ROT	0.72	-	0.91	-	0.00	-	Sustaining
7	B.L.B	3.61	-	2.90	-	3.00	-	Increasing
8	B.L.S	13.37	-	16.39	-	8.62	-	Increasing
9	SHEAT H BLIGHT	1.69	-	2.08	-	0.00	-	Increasing
10	BLAST	1.33	-	1.54	-	1.74	-	Decreasing
NO. OF TOTAL SPOTS VISITED				830				
TOTAL AREA VISITED (Acres)				4172				

Tehsil wise percentage of hot spots of Rice Toka

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sialkot	12.50	3	Lahore	4.35
2	Phalia	5.88	4	M.B.Din	4.17

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE
1	Jatoi	60.00

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Malikwal	38.46	4	Zafarwal	25.00
2	M.B.Din	37.50	5	Ferozwala	8.89
3	Phalia	29.41			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sarai Alamgir	100.00	19	Bhakkar	20.00
2	Khushab	66.67	20	Baddomalhi	18.18
3	Pindi Bhattian	50.00	21	Lahore	17.39
4	Jalal Pur Jattan	50.00	22	kamoke	16.67
5	Quaidabad	50.00	23	Kot Addu	16.67
6	Jatoi	50.00	24	Sambrial	14.29
7	Hafizabad	46.67	25	Zafarwal	14.29
8	Malikwal	38.46	26	Ferozwala	13.33
9	M.B.Din	37.50	27	Sialkot	12.50

10	Wazirabad	33.33	28	Muridke	11.54
11	Kharian	33.33	29	Safdarabad	11.43
12	Gujranwala	30.00	30	Noshehra Virkan	10.00
13	Phalia	29.41	31	Daska	10.00
14	Pattoki	22.73	32	Pasrur	9.09
15	Gujrat	21.43	33	Sharqpur	5.88
16	Narowal	20.00	34	Chunian	5.00
17	Shakargarh	20.00	35	Sheikhupura	4.35
18	Lalian	20.00			

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Malikwal	23.08	4	Muridke	7.69
2	M.B.Din	16.67	5	Ferozwala	6.67
3	Phalia	11.76			

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Ferozwala	11.11	4	Bhakkar	6.67
2	Malikwal	7.69	5	Phalia	5.88
3	Zafarwal	7.14	6	Kasur	4.00

Meteorological data of the current week 2020-2021

METEOROLOGICAL DATA FOR THE 2ND WEEK OF NOVEMBER, 2021								
Districts	2021				2020			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	27.3	12.3	59.3	0.0	28.54	12.47	71.84	0
Hafizbad	28.0	15.0	54.0	0.0	29.0	16.0	60.0	0.0
Sialkot	36.0	28.0	56.0	10.0	34.5	26.7	59.0	0.0
Narowal	25.3	11.0	71.4	0.0	26.0	11.0	70.1	0.0
Gujrat	29.0	15.0	31.0	0.0	28.57	12.57	31	0
M.B.Din	28.6	12.6	32.0	0.0	28.6	12.57	31	0.0
Lahore	28.4	21.6	64.6	0.4	29.0	18.0	52.0	2.6
Sheikhupura	28.3	17.3	46.0		28.5	16.3	47.5	
Ferozwala	28.0	14.0	54.9		29.8	18.6	42.2	
Nankana	28.7	15.1	23.1		26.3	14.1	58.5	
Kasur	29.4	14.1	36.0		29.0	12.3	36.7	
Faisalabad	27.5	15.8	54.2	0.0	0.0	0.0	0.0	0.0
Jhang	30.3	13.0	86.5	0	31.71	17.78	79.71	0
Toba Tek Singh	29.05	13.95	79.50	0.00	35.06	15.29	82.63	0.00
Chiniot	29.0	13.0	63.0	0.0	30.0	16.0	58.0	0.0
Multan	28.7	16.1	64.9	0.0	29.6	14.1	73.1	0.0
Khanewal	29.3	15.6	61.6	0.0	30.5	14.1	54.0	0.0
Vehari	28.6	16.0	62.4	0.0	28.4	15.1	58.4	0.0
Lodhran	28.2	16.0	64.2	0.0	28.0	16.0	67.0	0.0
Sahiwal	29.0	14.0	65.0	0.0	30.4	12.7	62.4	0.0
Pakpattan	28.0	13.5	64.0	0.0	31.0	13.6	53.4	0.0
Okara	28.5	13.0	62.4	0.0	32.7	14.0	76.6	0.0
Bahawalpur	29.2	13.7	71.9	0.0	30.3	14.2	52.5	0.0
Bahawalnagar	30.2	14.4	63.2	0.0	29.3	12.8	60.1	0.0
R.Y.Khan	33.6	17.3	44.3	0.0	33.0	15.6	47.8	0.0
D.G. Khan	30.9	14.6	59.2	0.0	31.3	15.4	49.8	0.0
Muzaffar Garh	31.2	16.3	57.3	0.0	24.5	13.7	58.5	2.0

Rajanpur	33.6	16.7	39.1	0.0	33.3	15.9	46.2	0.0
Layyah	28.7	16.1	60.9	0.0	29.4	12.6	68.2	0.0
TOT/AVG	29.33	15.35	56.95	0.42	28.83	14.47	55.45	0.18

Summary of weather forecast

Weather forecast for next 7 day in rice zone

Division	Dated	16- Nov	17- Nov	18- Nov	19- Nov	20- Nov	21- Nov	22- Nov
Faisalabad	Max.Temp.	26	26	26	26	26	27	28
	Min.Temp.	11	10	10	11	10	10	13
	Humidity %	24	24	27	24	24	16	14
Gujranwala	Max.Temp.	25	25	25	25	26	27	27
	Min.Temp.	9	9	8	8	8	9	12
	Humidity %	28	24	24	23	25	19	16
Lahore	Max.Temp.	24	24	24	24	24	25	25
	Min.Temp.	11	10	10	10	10	10	13
	Humidity %	32	33	33	33	33	29	28
Sargodha	Max.Temp.	27	27	27	27	28	28	28
	Min.Temp.	7	7	7	8	7	7	9
	Humidity %	17	17	19	16	16	15	15
Multan	Max.Temp.	28	28	27	27	27	28	30
	Min.Temp.	11	11	9	11	10	10	13
	Humidity %	23	23	24	21	20	16	12
Average Rice Region	Max.Temp.	26.3						
	Min.Temp.	9.68						
	Humidity %	22.5						

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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%. 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.**

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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%.

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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%. 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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%. 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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%. 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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%. 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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5% 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.**

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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%. 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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5% 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. 29.33 °C, Min. 15.35 °C with R. humidity 56.95%) & forecast for the next week temp. Max. 26.3°C, Min. 9.68°C with humidity 22.5%. 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 3-4 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