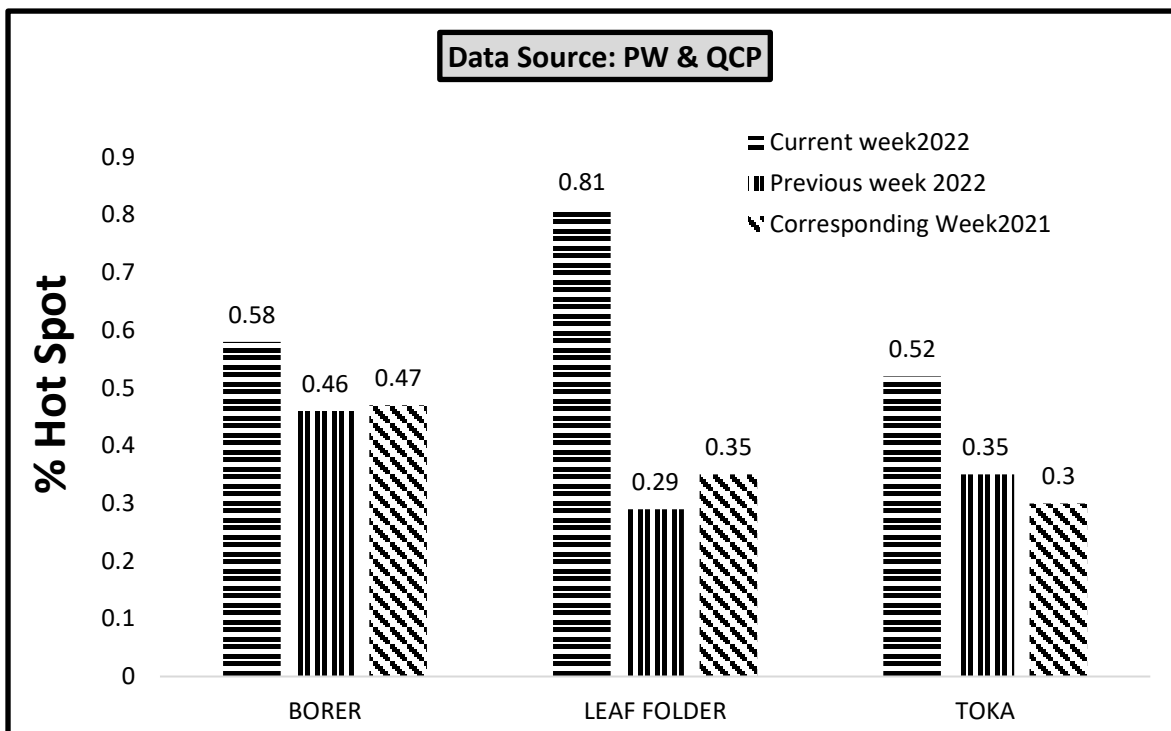
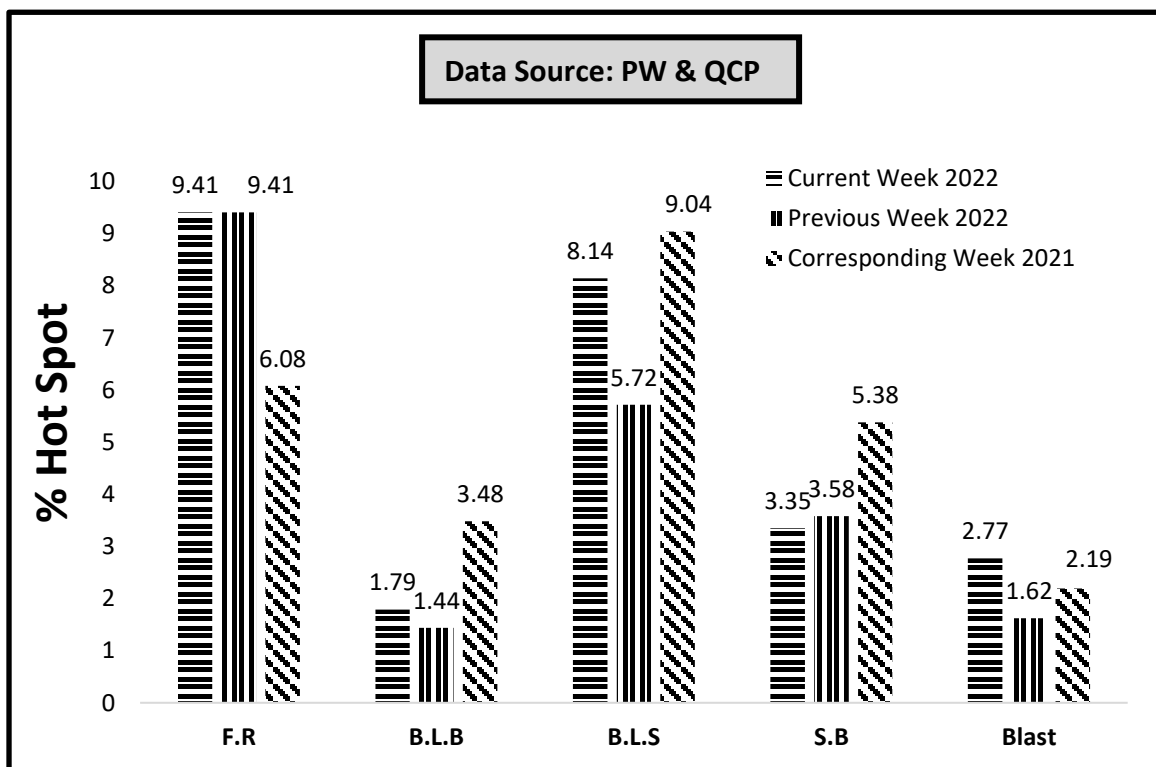


# PEST SITUATION ON RICE CROP IN PUNJAB DURING 2<sup>ND</sup> WEEK OF SEPTEMBER, 2022

## A- Insect Pest



## B- Disease



(**FR:** Foot Rot, **BLB:** Bacterial Leaf Blight, **BLS:** Brown Leaf spot, **SB:** Sheath Blight)

## PEST SITUATION ON RICE CROP IN PUNJAB DURING 2<sup>ND</sup> WEEK OF SEPTEMBER, 2022

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	0.58	13.33	0.46	12.88	0.47	9.51	Increasing
2	LEAF FOLDER	0.81	17.14	0.29	14.95	0.35	9.10	Increasing
3	WPBH	0.00	0.40	0.00	0.06	0.00	0.00	-
4	BPH	0.00	0.40	0.00	0.17	0.00	0.30	-
5	TOKA	0.52	21.35	0.35	19.23	0.30	18.02	Increasing
6	FOOT ROT	9.41	-	9.41	-	6.08	-	Sustain
7	B.L.B	1.79	-	1.44	-	3.48	-	Increasing
8	B.L.S	8.14	-	5.72	-	9.04	-	Increasing
9	SHEATH BLIGHT	3.35	-	3.58	-	5.38	-	Sustain
10	BLAST	2.77	-	1.62	-	2.19	-	Increasing
NO. OF TOTAL SPOTS VISITED			1733					
TOTAL AREA VISITED (Acres)			13439					

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Lodhran	33	5	Bahawalnagar	20.0
2	Kehror Pacca	33.3	6	Minchinabad	13.0
3	Shujabad	25.0	7	Multan	7.7
4	Chistian	25.0	8	Kasur	2.9

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Shujabad	25	6	Minchinabad	13.0
2	Chistian	25.0	7	Jatoi	9.1
3	Karor	20.0	8	Lahore	3.9
4	Bahawalnagar	20.0	9	Phalia	3.1
5	Multan	15.4	10	Kasur	2.9

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

Nil

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

Nil

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Ferozwala	6	5	Narang Mandi	2.4
2	Gujranwala	5.6	6	Sangla Hill	2.0
3	M.B.Din	4.5	7	Lahore	2.0
4	Phalia	3.1			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kehror Pacca	67	27	18-Hazari	13.3
2	Kot Radha Kishan	55.6	28	Shorkot	12.5
3	Pattoki	50.0	29	Sangla Hill	12.0
4	Bhalwal	50.0	30	Depalpure	12.0
5	Jahanain	50.0	31	Bhowana	11.5
6	Kabirwala	50.0	32	Ferozwala	11.3
7	Dunya Pur	50.0	33	Sambrial	10.3
8	Kharian	45.5	34	Pindi Bhattian	9.4
9	Bhera	38.5	35	Hafizabad	8.7
10	Chunian	36.0	36	Pirmahal	8.6
11	Lodhran	33.3	37	Chak Jhumra	8.3
12	Noshehra Virkan	30.8	38	Kot Momin	8.3
13	Jatoi	27.3	39	Shahkot	7.7
14	Pakpattan	25.0	40	Narang Mandi	7.1
15	Sahiwal	22.2	41	Pasrur	6.7
16	Muzaffargarh	22.2	42	Nankana Sahib	6.7
17	Khanewal	20.0	43	Phalia	6.3
18	Daska	18.2	44	Silanwali	5.9
19	Kamonke	17.6	45	Malikwal	5.6
20	Mian Channu	16.7	46	Chiniot	5.3
21	Sahiwal	16.0	47	M.B.Din	4.5
22	Lahore	15.7	48	AP Sial	5
23	Kamalia	15.0	49	Gujrat	4
24	Lalian	14.7	50	Muridke	2.9
25	Wazirabad	14.3	51	Jaranwala	2.4
26	Jhang	14.3			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Mailsi	20	11	Hafizabad	4.3
2	Malikwal	16.7	12	Bhowana	3.8
3	Phalia	15.6	13	Sambrial	3.4
4	Pasrur	10.0	14	Pindi Bhattian	3.1
5	Kamalia	10.0	15	Pirmahal	2.9
6	M.B.Din	9.1	16	Wazirabad	2.4
7	AP Sial	9.1	17	Gujrat	2.2
8	Shahkot	7.7	18	Lahore	2.0
9	18-Hazari	6.7	19	Ferozwala	1.9

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	52	22	18-Hazari	13.3
2	Bhalwal	50.0	23	Hafizabad	13.0
3	Bhakkar	40.0	24	Silanwali	11.8
4	Noshehra Virkan	30.8	25	Gujranwala	11.1
5	Shakargarh	29.4	26	Lahore	9.8
6	Bhera	26.9	27	Narang Mandi	9.5
7	Minchinabad	26.1	28	Pindi Bhattian	9.4
8	Pattoki	25.0	29	Kharian	9.1
9	Chistian	25.0	30	Chiniot	7.9
10	Shahkot	23.1	31	Bhowana	7.7
11	Kot Radha Kishan	22.2	32	Ferozwala	7.5
12	Muridke	20.6	33	Shorkot	6.3
13	Chunian	20.0	34	Lalian	5.9
14	Vehari	20.0	35	Kasur	5.7
15	Bahawalnagar	20.0	36	Zafarwal	4.5

16	Wazirabad	19.0	37	Gujrat	4.3
17	M.B.Din	18.2	38	Daska	3.0
18	Kamonke	17.6	39	Pirmahal	2.9
19	Malikwal	16.7	40	Sheikhupura	2.7
20	Phalia	15.6	41	Jaranwala	2.4
21	Sangla Hill	14.0			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kamonke	29	15	Pindi Bhattian	6.3
2	Jalal Pur Jattan	16.7	16	Shakargarh	5.9
3	Malikwal	16.7	17	Lahore	5.9
4	M.B.Din	13.6	18	Kasur	5.7
5	Nankana Sahib	13.3	19	Ferozwala	5.7
6	Pattoki	12.5	20	Sheikhupura	5.4
7	Gujranwala	11.1	21	Hafizabad	4.3
8	Kot Radha Kishan	11.1	22	Safdarabad	4.3
9	Wazirabad	9.5	23	Sangla Hill	4.0
10	Muridke	8.8	24	Chunian	4.0
11	Sahiwal	8.0	25	Sambrial	3.4
12	Noshehra Virkan	7.7	26	Pasrur	3.3
13	Narang Mandi	7.1	27	Phalia	3.1
14	Gujrat	6.5			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Multan	31	11	Depalpure	8.0
2	Kot Radha Kishan	22.2	12	Safdarabad	6.5
3	Chunian	16.0	13	Pakpattan	5.0
4	Kamalia	15.0	14	M.B.Din	4.5
5	Muridke	14.7	15	Minchinabad	4.3
6	Pattoki	12.5	16	Noshehra Virkan	3.8
7	Sahiwal	12.0	17	Phalia	3.1
8	Bhera	11.5	18	Zafarwal	2.3
9	Pirmahal	11.4	19	Sangla Hill	2.0
10	Khushab	10.2	20	Lahore	2.0

### Meteorological data of the current week 2022

METEOROLOGICAL DATA FOR 2ND WEEK OF AUGUST 2022								
Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	34.5	26.5	72.5	12.0	37.3	26.6	79.6	5.0
Hafizbad	36.0	28.0	63.0	2.0	37.0	29.0	65.0	0.0
Sialkot	35.0	21.0	82.0	65.0	42.0	22.0	0.7	40.0
Narowal	34.4	22.2	96.7	7.0	31.4	22.1	86.4	115.0
Gujrat	31.0	26.0	62.0	0.0	36.0	29.0	62.0	0.0
M.B.Din	38.0	24.0	0.7	8.0	36.0	23.0	73.0	12.0
Lahore	34.5	26.2	70.7	4.9	28.3	26.0	83.9	2.5
Sheikhupura	33.2	23.8	66.7	1.6	35.2	25.2	61.0	1.2
Nankana	34.5	26.6	46.0	6.0	33.8	26.3	50.0	33.0
Kasur	39.8	28.0	62.4	0.1	31.7	25.9	65.0	50.0
Faisalabad	36.4	26.4	79.1	7.8	35.5	26.3	71.8	2.6
Jhang	37.5	25.7	59.5	0.5	35.6	25.8	65.7	0.1
Toba Tek Singh	36.9	26.5	84.3	0.0	38.1	27.9	75.4	1.4
Chiniot	34.2	27.2	64.6	0.0	33.0	25.4	67.9	0.0
Sargodha	37.0	26.0	67.0	70.0	38.0	28.0	70.0	0.0

Khushab	39.2	27.4	68.7	0.0	37.9	26.9	71.5	0.0
Mianwali	39.8	28.0	62.4	0.1	31.7	25.9	65.0	50.0
Bhakkar	37.5	27.5	55.0	0.0	38.5	25.3	52.0	0.0
Multan	38.9	25.9	69.2	0.6	35.7	28.9	65.0	0.0
Khanewal	36.6	27.4	72.4	0.8	36.6	26.9	69.8	5.0
Vehari	38.7	26.0	66.4	0.0	37.3	28.7	71.8	0.0
Lodhran	37.4	24.5	77.4	0.0	31.5	21.5	78.5	15.0
Sahiwal	35.9	25.5	74.3	44.0	35.0	25.0	77.0	13.0
Pakpattan	35.4	26.2	72.6	6.0	36.0	26.0	74.0	5.0
Okara	35.6	27.1	73.2	20.2	35.0	26.0	78.0	15.0
Bahawalpur	34.4	25.7	78.5	29.2	39.4	27.4	58.4	0.0
Bahawalnagar	38.3	26.5	72.3	0.7	37.0	26.3	62.6	0.3
R.Y.Khan	31.1	25.0	80.7	66.0	39.4	26.6	52.6	0.0
D.G. Khan	37.1	28.3	62.8	0.0	37.9	26.4	50.6	30.0
Muzaffar Garh	34.2	25.4	72.0	2.0	33.7	25.8	57.5	3.0
Rajanpur	35.4	22.6	71.6	0.0	39.6	27.6	50.1	0.0
Layyah	32.0	25.0	80.0	2.0	33.4	25.4	51.8	0.0
<b>TOT/AVG</b>	<b>35.95</b>	<b>25.87</b>	<b>68.33</b>	<b>356.5</b>	<b>35.77</b>	<b>26.10</b>	<b>64.48</b>	<b>399.1</b>

### 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%. 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 not favorable for the development of this pest.

**Leaf Folder:** This pest flourishes best in warm humid climate with optimum temperature 25-30°C. 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 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%. 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 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%. 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 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%. 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 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. 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%. 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%. 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%. 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. 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