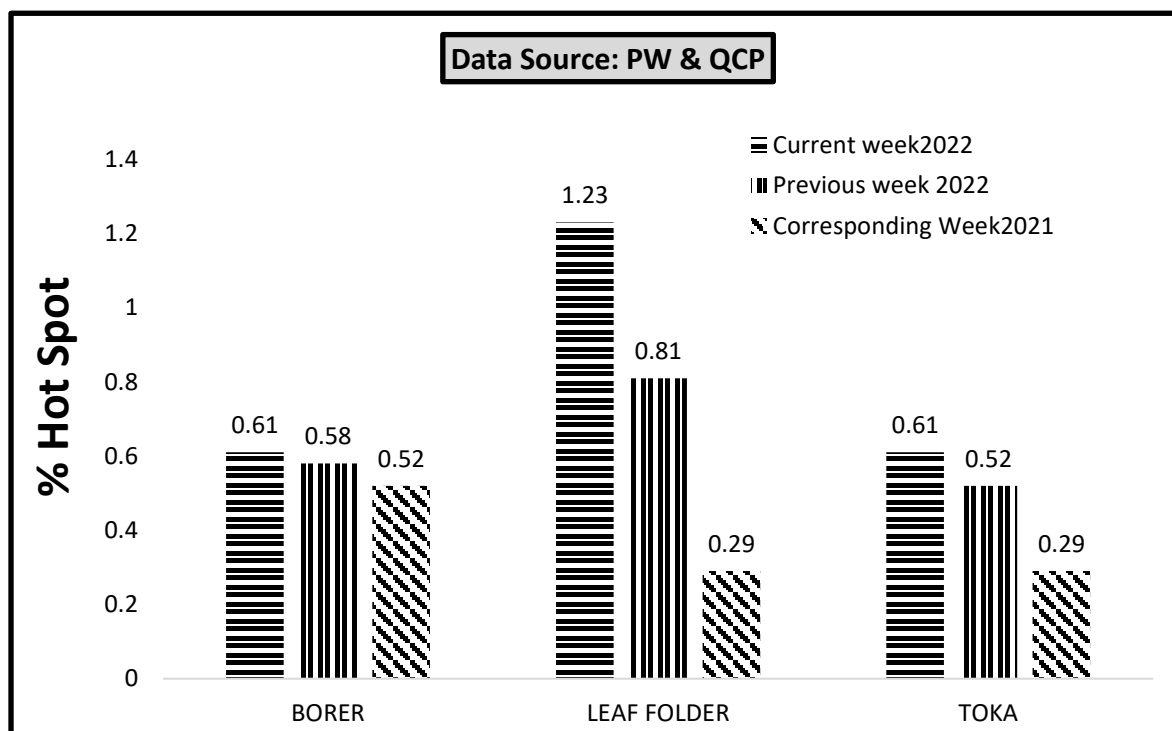
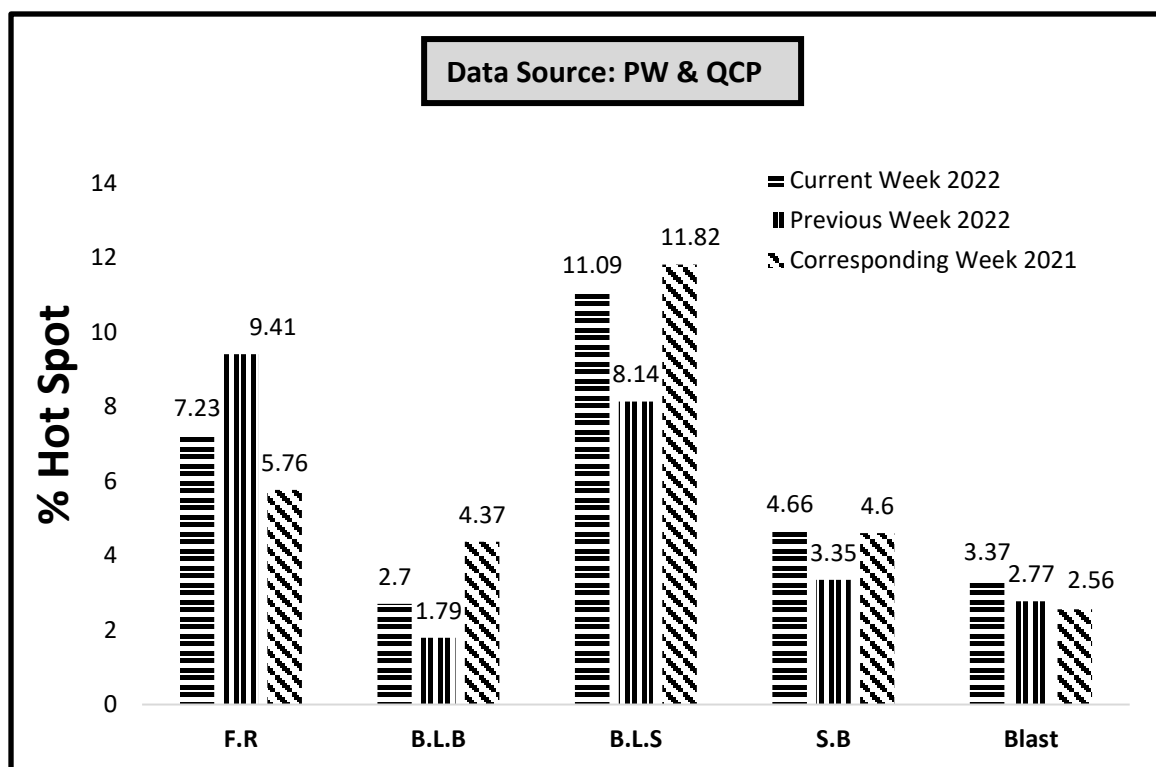


# PEST SITUATION ON RICE CROP IN PUNJAB DURING 3<sup>RD</sup> WEEK OF SEPTEMBER, 2022

## 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 3<sup>RD</sup> WEEK OF SEPTEMBER, 2022

Pest Situation of Rice Pests								
		%Age of spots						Remarks
Sr. No.	Pest Name	Current Week		Previous Week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	RICE BORER	0.61	12.50	0.58	13.33	0.52	11.93	Increasing
2	LEAF FOLDER	1.23	18.63	0.81	17.14	0.29	11.53	Increasing
3	WPBH	0.00	0.92	0.00	0.40	0.00	0.58	-
4	BPH	0.00	1.47	0.00	0.40	0.00	0.93	-
5	TOKA	0.61	20.83	0.52	21.35	0.29	21.19	Increasing
6	FOOT ROT	7.23	-	9.41	-	5.76	-	Decreasing
7	B.L.B	2.70	-	1.79	-	4.37	-	Increasing
8	B.L.S	11.09	-	8.14	-	11.82	-	Increasing
9	SHEAT H BLIGHT	4.66	-	3.35	-	4.60	-	Increasing
10	BLAST	3.37	-	2.77	-	2.56	-	Increasing
NO. OF TOTAL SPOTS VISITED			1632					
TOTAL AREA VISITED (Acres)			12834					

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Shujabad	25	4	Multan	13.6
2	Chistian	16.7	5	Minchanabad	10.7
3	Bahawalnagar	16.7	6	Pakpattan	3.6

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Chistian	17	8	Noshehra Virkan	5.0
2	Bahawalnagar	16.7	9	Multan	4.5
3	Hafizabad	9.4	10	Shakargarh	3.8
4	Pakpattan	7.1	11	Wazirabad	3.1
5	Minchinabad	7.1	12	M.B.Din	3.0
6	Pindi Bhattian	6.9	13	Lahore	2.2
7	Phalia	6.3	14	Chak Jhumra	2.1

### 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	Safdarabad	9	3	Sheikhupura	7.5
2	Depalpure	8.7			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sangla Hill	60	23	Hafizabad	12.5
2	Sargodha	57.1	24	Phalia	12.5
3	Kabirwala	50.0	25	Shorkot	11.8
4	Dunya Pur	50.0	26	Gujranwala	10.0
5	Nankana Sahib	41.9	27	Pasrur	10.0
6	Shahkot	41.7	28	AP Sial	10.0
7	Jahanain	33.3	29	Kamalia	10.0
8	Kehror Pacca	33.3	30	Safdarabad	8.9
9	Jatoi	33.3	31	Depalpure	8.7
10	Muzaffargarh	33.3	32	Malikwal	7.7
11	Khanewal	25.0	33	Muridke	7.7
12	Noshehra Virkan	22.5	34	Kot Momin	7.1
13	Lalian	22.2	35	Sahiwal	6.9
14	Bhalwal	20.0	36	kamoke	5.6
15	Alipur	20.0	37	Bhowana	5.0
16	Wazirabad	18.8	38	Sharqpur	4.8
17	Pakpattan	17.9	39	M.B.Din	3.0
18	Silanwali	16.7	40	Chiniot	3.0
19	Mian Channu	16.7	41	Pirmahal	3.0
20	Narang Mandi	15.4	42	Sheikhupura	2.5
21	Sahiwal	15.0	43	Lahore	2.2
22	Pindi Bhattian	13.8			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bhalwal	40	11	Kot Momin	7.1
2	Daska	25.7	12	Pindi Bhattian	6.9
3	M.B.Din	15.2	13	Lahore	6.5
4	Phalia	12.5	14	Narowal	5.9
5	Baddomalhi	10.3	15	Kharian	5.6
6	Gujranwala	10.0	16	Sialkot	5.0
7	Hafizabad	9.4	17	Wazirabad	3.1
8	Gujrat	9.4	18	Jaranwala	2.8
9	Malikwal	7.7	19	Noshehra Virkan	2.5
10	Sambrial	7.4			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sahiwal	72	24	Lalian	14.8
2	Shakargarh	38.5	25	Kot Momin	14.3

3	Phalia	37.5	26	Bhakkar	14.3
4	Sargodha	28.6	27	Gujrat	12.5
5	Wazirabad	28.1	28	Safdarabad	12.5
6	M.B.Din	27.3	29	Kot Radha Kishan	12.5
7	Shujabad	25.0	30	Shorkot	11.8
8	Minchinabad	25.0	31	Gujranwala	10.0
9	Malikwal	23.1	32	Sialkot	10.0
10	Nankana Sahib	22.6	33	Sangla Hill	10.0
11	Kharian	22.2	34	Bhowana	10.0
12	Pattoki	22.2	35	AP Sial	10.0
13	Hafizabad	21.9	36	Ferozwala	9.5
14	Jhang	20.0	37	Zafarwal	7.7
15	Karor	20.0	38	Sheikhupura	7.5
16	Noshehra Virkan	17.5	39	Khushab	7.1
17	Muridke	17.3	40	Pirmahal	6.1
18	Pindi Bhattian	17.2	41	Lahore	4.3
19	Pasrur	16.7	42	Sambrial	3.7
20	Shahkot	16.7	43	Kasur	3.1
21	Chistian	16.7	44	Chiniot	3.0
22	Bahawalnagar	16.7	45	Daska	2.9
23	Narang Mandi	15.4			

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Sharqpur	38	14	Muridke	7.7
2	kamoke	33.3	15	Ferozwala	7.1
3	Phalia	18.8	16	Nankana Sahib	6.5
4	M.B.Din	18.2	17	Kasur	6.3
5	Pasrur	16.7	18	Shorkot	5.9
6	Malikwal	15.4	19	Kharian	5.6
7	Gujranwala	15.0	20	Pattoki	5.6
8	Sahiwal	13.8	21	Safdarabad	5.4
9	Hafizabad	12.5	22	Lahore	4.3
10	Shakargarh	11.5	23	Chunian	4.3
11	Pindi Bhattian	10.3	24	Gujrat	3.1
12	Daska	8.6	25	Pirmahal	3.0
13	Shahkot	8.3	26	Sheikhupura	2.5

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

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Jalal Pur	33	15	D.G Khan	8.3
2	Kamalia	30.0	16	Shakargarh	7.7
3	Shujabad	25.0	17	Malikwal	7.7
4	Kot chutta	20.0	18	Khushab	7.1
5	Depalpure	17.4	19	Pakpattan	7.1
6	Taunsa	16.7	20	Minchinabad	7.1
7	Chistian	16.7	21	Jhang	6.7
8	Bahawalnagar	16.7	22	Nankana Sahib	6.5
9	Sahiwal	13.8	23	Wazirabad	6.3

10	Phalia	12.5	24	Chunian	4.3
11	Pirmahal	12.1	25	Hafizabad	3.1
12	Pattoki	11.1	26	M.B.Din	3.0
13	Multan	9.1	27	Jaranwala	2.8
14	Shahkot	8.3	28	Noshehra Virkan	2.5

### Meteorological data of the current week 2022

METEOROLOGICAL DATA FOR 3RD WEEK OF SEPTEMBER 2022								
Districts	2022				2021			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Gujranwala	34.5	26.5	72.5	0.0	37.3	26.6	79.6	5.0
Hafizbad	37.0	26.5	70.0	0.0	36.5	27.0	67.0	0.0
Sialkot	35.0	21.0	82.0	65.0	42.0	22.0	0.7	40.0
Narowal	33.2	21.2	81.6	10.0	31.9	20.9	86.7	25.0
Gujrat	36.0	26.0	58.0	14.0	34.0	26.7	62.0	0.0
M.B.Din	38.0	21.0	0.7	9.0	38.5	22.0	0.7	0.0
Lahore	35.5	26.4	56.7	0.0	32.0	29.3	68.0	1.8
Sheikhupura	34.2	24.5	45.0	0.0	33.4	23.2	48.0	2.5
Nankana	34.7	26.0	57.4	0.2	34.7	26.4	61.0	0.0
Kasur	32.5	22.8	1.7	0.0	33.0	23.5	61.0	0.0
Faisalabad	37.0	25.8	73.7	0.4	35.5	26.3	71.8	2.6
Jhang	37.8	26.3	56.6	0.0	38.53	26.2	54.08	0.0
Toba Tek Singh	37.4	26.5	79.3	0.0	38.3	26.7	80.0	0.0
Chiniot	36.4	28.2	65.8	0.0	34.4	27.2	66.5	0.0
Sargodha	37.0	26.0	67.0	70.0	38.0	28.0	70.0	0.0
Khushab	35.5	24.5	79.0	0.0	39.0	28.0	65.0	0.0
Mianwali	38.0	21.0	0.7	9.0	38.5	22.0	0.7	0.0
Bhakkar	40.0	25.0	0.5	0.0	38.5	25.3	48.0	0.0
Multan	38.1	26.4	63.0	0.7	37.0	28.6	66.2	0.0
Khanewal	37.5	26.6	65.3	0.0	37.9	28.1	60.3	0.0
Vehari	36.9	26.9	65.6	0.0	37.7	28.9	59.4	0.0
Lodhran	36.4	25.0	69.6	0.0	38.5	26.5	70.0	0.0
Sahiwal	36.1	25.4	74.8	1.0	37.0	26.0	69.0	0.0
Pakpattan	35.8	24.6	72.4	0.0	38.0	27.0	71.0	0.0
Okara	36.0	25.0	72.0	0.0	36.0	25.0	68.0	0.0
Bahawalpur	38.3	26.2	63.1	0.0	38.6	27.2	60.7	0.0
Bahawalnagar	37.8	26.1	66.3	0.0	38.1	26.1	59.6	0.0
R.Y.Khan	38.6	26.2	44.7	0.0	38.3	27.6	48.8	0.0
D.G. Khan	39.3	27.4	58.9	0.0	37.6	25.3	52.4	0.0
Muzaffar Garh	36.2	26.4	60.0	3.0	37.7	28.7	54.0	3.0
Rajapur	38.8	28.0	61.3	0.0	40.5	30.0	55.6	0.0
Layyah	37.0	27.0	82.0	0.0	41.7	29.7	55.1	0.0
<b>TOT/AVG</b>	<b>36.64</b>	<b>25.39</b>	<b>58.34</b>	<b>182.3</b>	<b>37.14</b>	<b>26.31</b>	<b>57.53</b>	<b>79.9</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