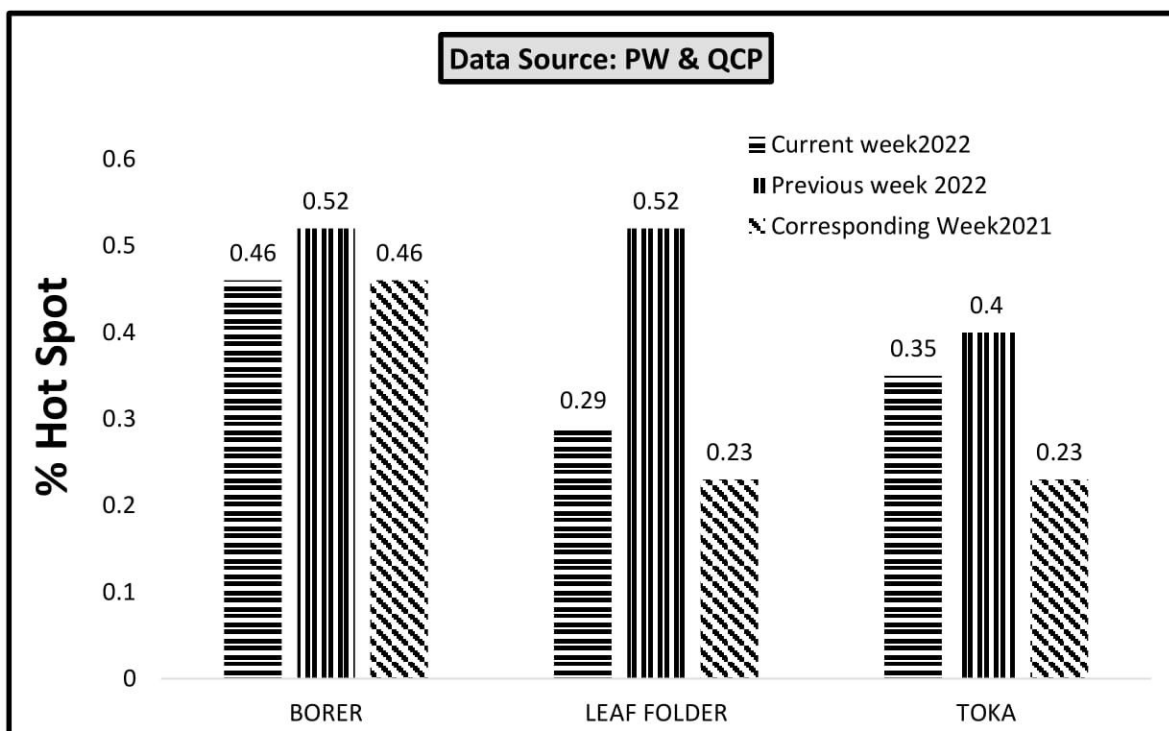
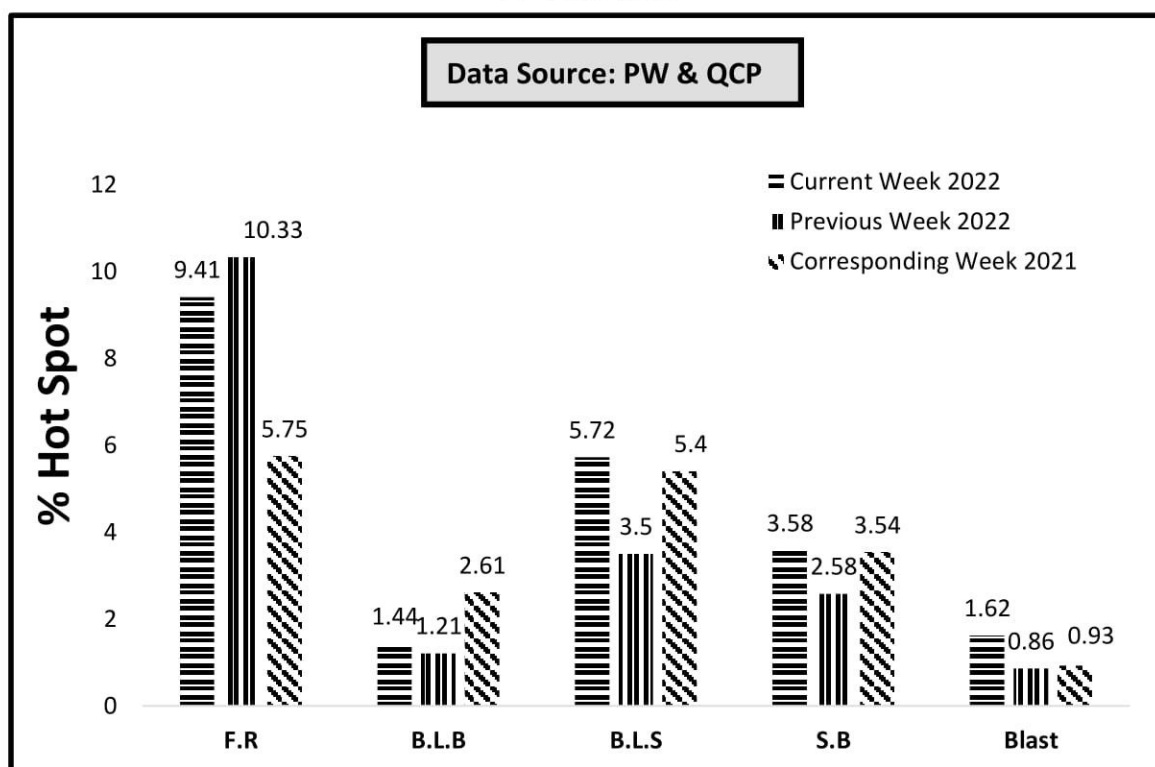


PEST SITUATION ON RICE CROP IN PUNJAB DURING 1ST WEEK OF SEPTEMBER, 2022

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 1ST WEEK OF SEPTEMBER, 2022

Pest Situation of Rice Pests								
		%Age of spots						Remarks
Sr. No.	Pest Name	Current Week 2022		Previous Week 2022		Corresponding week 2021		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	RICE BORER	0.46	12.88	0.52	13.09	0.46	8.36	Sustaining
2	LEAF FOLDER	0.29	14.95	0.52	12.86	0.23	6.91	Increasing
3	WPBH	0.00	0.06	0.00	0.00	0.00	0.00	-
4	BPH	0.00	0.17	0.00	0.00	0.00	0.46	-
5	TOKA	0.35	19.23	0.40	19.69	0.23	17.24	Increasing
6	FOOT ROT	9.41	-	10.33	-	5.75	-	Increasing
7	B.L.B	1.44	-	1.21	-	2.61	-	Decreasing
8	B.L.S	5.72	-	3.50	-	5.40	-	Increasing
9	SHEAT H BLIGHT	3.58	-	2.58	-	3.54	-	Increasing
10	BLAST	1.62	-	0.86	-	0.93	-	Increasing
NO. OF TOTAL SPOTS VISITED		1732						
TOTAL AREA VISITED (Acres)		13222						

Tehsil wise percentage of hot spots of Rice Borer

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Chistian	25	4	Pakpattan	10
2	Bahawalnagar	20	5	Multan	8.3
3	Minchinabad	15			

Tehsil wise percentage of hot spots of Rice Leaf Folder

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Chistian	25	3	Bahawalnagar	20
2	Karor	20	4	Minchinabad	10

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	Gujranwala	4	4	Narang Mandi	2
2	Ferozwala	4	5	Lahore	1.5
3	MB Din	3			

Tehsil wise percentage of hot spots of Foot Rot

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Bhalwal	78	23	Bhowana	11.5
2	Kot Radha Kishan	56	24	Pasrur	11.1
3	Dunya Pur	50	25	Chak Jhumra	11.1
4	Pattoki	47	26	Hafizabad	10.5

5	Chunian	41.4	27	Noshehra Virkan	10.0
6	Jalal Pur Jattan	33.3	28	Sangla Hill	9.8
7	Pakpattan	30.0	29	Narang Mandi	9.8
8	Kot Momin	29.6	30	Sambrial	9.4
9	Silanwali	28.6	31	Shahkot	9.1
10	Sahiwal	27.8	32	Jaranwala	9.1
11	Muzaffargarh	22.2	33	Sialkot	8.7
12	Shorkot	20.0	34	Depalpure	8.3
13	18-Hazari	20.0	35	Gujranwala	7.7
14	kamoke	16.0	36	Shahpur	7.7
15	Kharian	15.4	37	Kamalia	7.5
16	Sargodha	15.4	38	Lalian	6.3
17	Nankana Sahib	14.3	39	Lahore	6.2
18	Pindi Bhattian	13.2	40	Shakargarh	5.0
19	Daska	12.5	41	Malikwal	5.0
20	Narowal	12.5	42	Baddomalhi	4.2
21	Ferozwala	12.5	43	Chiniot	3.6

Tehsil wise percentage of hot spots of Bacterial Leaf Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Phalia	16	9	Sialkot	4.3
2	Malikwal	15	10	kamoke	4.0
3	M.B.Din	9	11	Gujranwala	3.8
4	Kharian	8	12	Noshehra Virkan	3.3
5	Sambrial	6.3	13	Daska	3.1
6	Pasrur	5.6	14	Pindi Bhattian	2.6
7	Hafizabad	5.3	15	Safdarabad	2.4
8	Shakargarh	5.0			

Tehsil wise percentage of hot spots of Brown Leaf Spots

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kot Momin	44	17	Chunian	10.3
2	Phalia	37	18	Kasur	10.0
3	Malikwal	25	19	Khushab	10.0
4	Shahpur	23	20	Shahkot	9.1
5	Kot Radha Kishan	22.2	21	Quaidabad	8.0
6	Shakargarh	20.0	22	Pindi Bhattian	7.9
7	18-Hazari	20.0	23	Kharian	7.7
8	Vehari	20.0	24	Sargodha	7.7
9	Bahawalnagar	20.0	25	Noshehra Virkan	6.7
10	M.B.Din	18.2	26	Chiniot	3.6
11	Minchinabad	15.0	27	Lalian	3.1
12	Bhakkar	14.3	28	Lahore	3.1
13	Sangla Hill	13.7	29	Gujrat	2.9
14	Pattoki	13.3	30	Kamalia	2.5
15	Hafizabad	12.3	31	Ferozwala	1.8
16	Muridke	11.1			

Tehsil wise percentage of hot spots of Sheath Blight

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Kot Momin	19	15	Kasur	6.7
2	Phalia	16	16	Pattoki	6.7
3	Malikwal	15	17	Sambrial	6.3
4	Narang Mandi	15	18	Sheikhupura	5.9
5	M.B.Din	12.1	19	Pasrur	5.6
6	kamoke	12.0	20	Pindi Bhattian	5.3
7	Gujranwala	11.5	21	Safdarabad	4.9

8	Wazirabad	10.0	22	Quaidabad	4.0
9	Noshehra Virkan	10.0	23	Sangla Hill	3.9
10	Shakargarh	10.0	24	Daska	3.1
11	Sharqpur	10.0	25	Lahore	3.1
12	Shahkot	9.1	26	Muridke	2.8
13	Kharian	7.7	27	Chunian	1.7
14	Hafizabad	7.0			

Tehsil wise percentage of hot spots of Rice Blast

Sr.	TEHSIL	%AGE	Sr.	TEHSIL	%AGE
1	Multan	25	9	Muridke	5.6
2	Bhalwal	22	10	Phalia	5.3
3	D.G Khan	20	11	Malikwal	5.0
4	Pattoki	13	12	Pakpattan	5.0
5	Kot Radha Kishan	11.1	13	Chunian	3.4
6	Kamalia	10.0	14	M.B.Din	3.0
7	Depalpure	8.3	15	Sheikhupura	2.9
8	Kot Momin	7.4	16	Safdarabad	2.4

Meteorological data of the current week 2022

METEOROLOGICAL DATA FOR 1ST 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	12.0	37.3	26.6	79.6	5.0
Hafizbad	37.0	28.0	60.0	0.2	36.0	29.0	68.0	0.7
Sialkot	35.0	21.0	82.0	65.0	42.0	22.0	0.7	40.0
Narowal	34.3	23.3	79.8	3.0	32.7	22.0	83.3	4.0
Gujrat	33.0	27.0	72.0	26.0	36.0	29.0	62.0	0.0
M.B.Din	37.0	22.0	0.7	12.0	36.9	23.0	0.7	9.0
Lahore	35.8	27.4	55.7	3.5	23.9	19.7	67.0	2.1
Sheikhupura	35.5	26.6	45.0	0.0	32.2	24.5	59.0	31.0
Nankana	36.1	27.4	57.7	0.0	33.3	25.1	56.3	0.0
Kasur	34.2	25.8	67.5	0.0	35.2	25.2	59.2	0.0
Faisalabad	36.5	26.5	77.4	12.4	37.1	27.1	66.3	2.6
Jhang	35.9	26.1	58.4	0.0	37.7	26.9	59.8	0.0
Toba Tek Singh	36.6	27.1	83.7	0.0	38.5	27.7	82.0	0.0
Chiniot	37.2	27.2	53.2	0.0	37.6	28.0	54.4	0.0
Sargodha	33.0	26.0	71.0	0.0	38.0	28.0	75.0	0.0
Khushab	39.2	27.4	68.7	0.0	37.9	26.9	71.5	0.0
Mianwali	35.4	24.6	78.7	1.3	35.7	23.7	71.5	3.0
Bhakkar	37.5	27.5	65.0	0.0	38.5	25.3	55.0	0.0
Multan	38.0	27.1	67.6	0.0	35.1	26.3	67.1	0.0
Khanewal	36.7	26.9	71.1	0.4	36.7	27.7	62.4	2.0
Vehari	35.9	25.9	62.3	0.0	36.2	27.5	62.2	6.0
Lodhran	35.4	24.6	78.7	1.3	35.7	23.7	71.5	3.0
Sahiwal	36.9	28.0	70.5	14.0	37.0	25.0	72.0	9.5
Pakpattan	36.2	28.2	69.6	4.0	39.0	28.0	68.0	3.0
Okara	36.0	28.4	70.2	6.0	37.0	27.0	69.0	5.0
Bahawalpur	34.4	25.7	78.5	29.2	39.4	27.4	58.4	0.0
Bahawalnagar	36.2	26.6	64.0	0.0	36.3	26.2	67.4	0.8
R.Y.Khan	35.1	25.6	67.0	26.1	35.0	24.6	46.9	0.0
D.G. Khan	35.7	27.9	63.9	0.0	37.9	27.3	51.5	30.0
Muzaffar Garh	32.3	21.4	78.0	3.0	37.5	28.8	42.6	3.0
Rajanpur	33.2	22.6	74.1	0.0	39.6	27.6	47.2	0.0
Layyah	34.0	23.0	88.0	0.0	41.3	27.0	70.1	8.3
TOT/AVG	35.61	25.91	67.27	219.4	36.56	26.06	60.23	168.0

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