

Title: Effect of Absolute and Prosaro Fungicides for the Control of Stripe Rust in Spring Wheat - 2016

Objective: To evaluate the effects of fungicide application on stripe rust control in spring wheat.

Materials and Methods:

Five fungicide treatments were evaluated for the control of stripe rust in spring wheat. Hank spring wheat was planted two inches deep, on 7.5 inch row spacings on May 3. The experimental design was a randomized complete block design with three replications. Absolute and Prosaro were each applied at two rates along with the standard treatment of tebuconazole. Fungicide applications were made at flag leaf stage on June 10, 2016 and included the adjuvant Induce at 0.125% v/v. Fungicide treatments were applied using a CO₂ backpack sprayer with Teejet XR11002 nozzles in 20 GPA of water.

Results:

All treatments reduced the incidence of stripe rust and increased yields about two-fold. Likewise, fungicide treatments also improved test weight and TKW relative to the check. However, stripe rust infection, yield, test weight and TKW did not differ among fungicide treatments. Lodging, protein and falling numbers did not differ among treatments.

Summary:

All fungicides evaluated provided equivalent control of strip rust.

Table 1. Materials and Methods.

Seeding Date:	4/22/2016	Harvest Date:	8/18/2016
Julian Date:	113	Julian Date:	231
Seeding Rate:	120 lb/A	Soil Type:	Creston SiL
Previous Crop:	Spring Wheat	Soil Test:	99-32-432-40
Tillage:	Conventional	Fertilizer:	BC: 235-40-60 DR: 3-14-0
Herbicide:	Huskie 11 oz/A + Axial 16.4 oz/A + NIS 1 qt/100gal + UAN 28% 1 qt/A		

Table 2. Efficacy of fungicide application rate in the control of stripe rust in spring wheat, Kalispell, MT - 2016.

Treatment	Rate	Percent Stripe Rust			LOD %	YLD ¹ bu/A	PRO ² %	TWT ¹ lb/bu	TKW g	FN sec
		6/24	7/15	7/26						
Check		8.3	73.3	94.3	28.3	42.6	13.83	51.8	28.7	396.5
Absolute 500SC	4 fl oz/A	0.0	33.3	61.7	23.3	88.5	13.73	57.9	41.8	415.5
Absolute 500SC	5 fl oz/A	0.0	23.3	61.7	41.7	89.9	13.90	58.7	43.6	429.1
Prosaro 421 SC	5 fl oz/A	0.0	26.7	66.7	13.3	83.5	13.83	58.1	43.1	433.8
Prosaro 421 SC	6.5 fl oz/A	0.0	21.7	76.0	22.3	90.1	13.97	57.5	40.6	421.8
Tebuconazole	4 fl oz/A	0.0	20.0	61.7	41.7	90.6	14.17	57.8	42.6	420.2
Mean		1.4	33.1	70.3	28.4	80.9	13.91	57.0	40.0	419.5
CV		169.7	17.4	13.7	104.7	5.7	1.22	1.0	5.2	3.3
LSD		4.3	10.5	17.5	ns	8.3	ns	1.0	3.8	ns
Pr>F		0.0070	0.0001	0.0109	0.8151	0.0001	0.1168	0.0001	0.0001	0.0828

LOD: lodging, YLD: yield, PRO: protein, TWT: test weight, TKW: thousand kernel weight, FN: falling number, ns: nonsignificant.

¹ adjusted to 13% moisture.

² adjusted to 12% moisture.