

Title: Effect of Absolute Maxx and Prosaro on stripe rust control in winter wheat. 2017

Objective: Evaluate fungicides for crop tolerance and stripe rust control in winter wheat.

Materials and Methods:

Colter winter wheat was planted with a SeedMaster no-till air-drill on September 30, 2016 along with a fertilizer drill-blend of N-P-K at 0-30-70 lb/A, respectively. A supplemental fertilizer application of 75-0-40 was broadcast to the winter wheat crop on May 1, 2017. Huskie Complete was applied at 13.7 oz/A on May 9, 2017 to control weeds. Fungicide treatments were applied at the flag leaf stage on May 31 using a CO2 backpack sprayer equipped with TeeJet XR11002 nozzles in a volume of 20 GPA. Less than two percent of the crop showed signs of infection at this time.

Results:

All treatments afforded excellent crop tolerance. Similarly, all treatments provided excellent control of stripe rust. That being said, hot, dry conditions prevent the disease from developing into a major outbreak.

The drought and heat stress also depressed winter wheat yields, which were about half of the long term average for the area. Nevertheless, all fungicide treatments produced wheat yields greater than the nontreated check. On average, fungicide treatments increased yields by 8 bu compared to the nontreated check. The nontreated check also produced the lowest protein. However, only Absolute Maxx at 4 oz and Tebuconazole resulted in protein contents greater than the nontreated check. All fungicide treatments had higher test weights than the nontreated.

Summary:

All fungicide treatments evaluated provided excellent control of stripe rust, improving yields and test weights in the process.

Table 1. Materials and Methods.

Seeding Date:	9/30/2016	Harvest Date:	8/1/2017
Julian Date:	274	Julian Date:	213
Seeding Rate:	125 lb/A	Soil Type:	Creston SiL
Previous Crop:	100-12-172	Soil Test:	61-46-354
Tillage:	Conventional	Fertilizer:	D:0-30-70 BC: 75-0-40

Table 2. Effect of Absolute Maxx and Prosaro on stripe rust control in winter wheat. Kalispell, MT 2017.

Treatment	Rate	6/8	6/2	6/12	6/26	8/1	8/1	8/1
		CI	SR	SR	SR	YLD	PRO	TWT
		%	%	%	%	bu/A	%	lb/bu
Check		0	1.7	3.3	80	51.4	10.22	58.6
Absolute Maxx	4 fl oz/a	0	3	0.5	0	61.2	10.56	59.7
Induce 90 SL	0.125 % v/v							
Absolute Maxx	5 fl oz/a	0	1.7	0.8	0.7	57.8	10.38	59.6
Induce 90 SL	0.125 % v/v							
Prosaro	5 fl oz/a	0	1.7	0.3	0	58.2	10.28	59.4
Induce 90 SL	0.125 % v/v							
Tebuzol 3.6F	4 fl oz/a	0	1.3	1.2	5.7	60.8	10.55	59.5
Induce 90 SL	0.125 % v/v							
Mean		0.0	1.9	1.2	17.3	57.9	10.40	59.4
LSD P=.05		.	2.03	1.69	8.91	5.28	0.25	0.53
CV		0	57.86	72.71	27.41	4.84	1.29	0.47
Pr>F		1	0.4249	0.0197	0.0001	0.0163	0.0443	0.0106

CI: Crop injury, SR: Stripe rust, YLD: Yield, PRO: Protein, TWT: Test weight.