

Title: Fungicide evaluation in spring wheat – 2015

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

Results:

The efficacy of three fungicides were evaluated for the control of stripe rust in spring wheat. Fungicides were applied at the three tiller (3T) stage on June 5th, and at early boot (EB) on June 17th, or sequentially at 3T and EB (Table 2). The experimental design was a randomized complete block with three replications.

Stripe rust infection level was low, with the non-treated check experiencing 30% infection. As a result, no significant differences in stripe rust control were detected among the treatments. Nevertheless, significant differences were observed for yield. Prosaro applied at 6.5 fl oz/A at EB afforded the greatest yield at 77.8 bu/A, which was significantly greater than the non-treated check at 56.2 bu/A. All other treatments produced yields equivalent to the non-treated check.

Summary:

Dry weather conditions kept stripe rust infection levels low and prevented an accurate determination of fungicide efficacy.

Table 1. Materials and Methods - Efficacy of Fungicide on Spring Wheat, Kalispell - 2015

Seeding Date:	5/6/2015	Harvest Date:	8/11/2015
Julian Date:	126	Julian Date:	223
Seeding Rate:	110 lbs/A	Soil Type:	Creston SiL
Previous Crop:	Spring Wheat	Soil Test:	431-40-258
Tillage:	Conventional	Fertilizer:	0-30-0
Irrigation:	None	Herbicide:	Huskie Complete 13.7 oz/A

Table 2. Efficacy of fungicide application rate and timing in the control of stripe rust in spring wheat.

Treatment	Rate	Timing	SR %	LOD %	YLD ¹ bu/A	PRO ² %	TWT ¹ %
Check			30.0	0.0	56.2	12.7	60.8
Stratego induce 90 SL	4 fl oz/A 0.13 % v/v	3T	19.3	0.0	65.5	12.5	61.2
Prosaro 421 SC induce 90 SL	5 fl oz/A 0.13 % v/v	EB	2.7	0.0	64.2	12.9	61.3
Prosaro 421 SC induce 90 SL	6.5 fl oz/A 0.13 % v/v	EB	2.7	0.0	77.8	13.5	62.1
Stratego induce 90 SL	4 fl oz/A 0.13 % v/v	3T	2.3	0.0	60.9	12.8	61.4
Prosaro 421 SC induce 90 SL	6.5 fl oz/A 0.13 % v/v	EB					
Headline	6 fl oz/A	EB	3.7	0.0	69.8	13.2	61.7
Mean			10.1	0.0	65.7	12.9	61.4
CV			193.4	0.0	9.2	5.3	1.4
LSD			ns	ns	11.0	ns	ns
Pr>F			0.4235	1.0000	0.0201	0.5648	0.5757

SR: stripe rust, LOD: lodging, YLD: yield, PRO: protein, TWT: test weight

ns: nonsignificant

¹ adjusted to 13%, ² adjusted to 12%

3T = 3 tiller on June 5, EB = early boot on June 17