

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 5<sup>th</sup>, and at early boot (EB) on June 17<sup>th</sup>, 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 <sup>1</sup> bu/A	PRO <sup>2</sup> %	TWT <sup>1</sup> %
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

<sup>1</sup> adjusted to 13%, <sup>2</sup> adjusted to 12%

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