

Control of stripe rust of spring wheat with foliar fungicides, 2002.

Susceptible 'Fielder' and moderately susceptible 'Vanna' spring wheat cultivars were planted at Pullman, WA on 30 April 02. Fungicides were applied as fl oz of active ingredient in water on 25 June at early boot stage. Eight fungicide treatments were used. All treatments were applied once, except for the fungicide treatment A13705 SC 200 at the rate of 1.3 fl oz/A, which was applied a second time on 20 July at milk stage. A randomized block design was used with four replications for each treatment. Plots were 71.38 sq ft. Data on stripe rust severity (percent foliage with stripe rust) were recorded on 19 July at milk stage and on 26 July at soft dough stage. Yields were determined from plots harvested in September when kernels were naturally dry. Analysis of variance was used to analyze the rust and yield data.

Stripe rust severities on both Fielder and Vanna were 1 - 2% on 25 June when the fungicides were applied. Stripe rust in non-treated control plots of Fielder developed to 90% and of Vanna to 50% by milk stage on 19 July. By soft dough stage on 26 July, stripe rust in non-treated control plots of Vanna also developed to 90%. All the fungicide treatments effectively reduced stripe rust severity. Folicur, Quadris, and A 13705 SC 200 applied at 2.6 and 1.96 fl oz significantly increased grain yield compared to the non-treated controls on Fielder; Only A13705 SC 200 applied at 1.96 fl oz significantly increased grain yield on Vanna.

Treatment ^z	Stripe rust (%) ^y		Yield ^x	
	July 19 Milk	July 26 Soft dough	Mean (bu/A)	Increase (%)
Fielder				
Folicur 3.6F (1.63).....	0 a	0 a	71 a	37
Quadris SC 250 (2.19).....	3 a b	7 a b	66 a	27
A13705 SC 200 (2.6).....	1 a b	1 a	65 a	25
A13705 SC 200 (1.96).....	6 a b	21 b	64 a	23
A13705 SC 200 (1.30).....	1 a b	0 a	63 a b	21
Stratego EC 250 (2.38).....	1 a b	0 a	63 a b	21
Tilt 3.6 EC 428 (0.81).....	24 b	2 a	62 a b	19
Non-Treated Control.....	85 c	90 c	52 b	
LSD ($P \leq 0.05$).....	24	18	12	
Vanna				
A13705 SC 200 (1.96).....	0 a	0 a	77 a	18
A13705 SC 200 (2.6).....	0 a	0 a	74 a b	14
Folicur 3.6F (1.63).....	0 a	0 a	72 a b	11
Quadris SC 250 (2.19).....	0 a	0 a	71 a b	9
Stratego EC 250 (2.38).....	0 a	0 a	70 a b	8
Tilt 3.6 EC 428 (0.81).....	0 a	0 a	67 a b	3
A13705 SC 200 (1.30).....	11 a	0 a	66 b	2
Non-Treated Control.....	43 b	88 b	65 b	
LSD ($P \leq 0.05$).....	12	3	9	

^z Treatments were applied at early boot stage on 25 June as fl oz of active ingredient in water at 20 gal/A at the rates indicated in parentheses. Only treatment A13705 SC 200 at 1.3 fl oz was applied a second time at milk stage on 20 July.

^y Rust data were means of four replications for each treatment; rust means for each cultivar followed by the same letter are not significantly different.

^x Yield data were means of four replications of 71.38 sq ft each. Yield means for each cultivar followed by the same letter are not significantly different.