

Control of stripe rust of spring barley with foliar fungicides, 2001.

Spring barley cultivars ‘Harrington’ and ‘Steptoe’ were planted at Mount Vernon, WA on 24 April 2001. Fungicides were applied as oz of active ingredient in water on 20 June at the boot stage of plant growth. A randomized block design was used with four replications. Plots were 135 sq. ft. Data on rust severity (percent of foliage with stripe rust) were recorded just before applying fungicides on 20 June at the boot stage and 20 days after the application on 10 July at the milk stage. Yields were determined from plots harvested during August when kernels were naturally dry. Analysis of variance was used to analyze the rust and yield data. The treatments for each cultivar were ranked using the Duncan’s Multiple Range Test.

Stripe rust severities were 1 - 3% on Harrington and 3 – 6% on Steptoe when the fungicides were applied on June 20. Stripe rust in non-treated control plots developed to 50% on Harrington and 65% on Steptoe by the milk stage of growth. Folicur, Tilt, Quadris, and Stratego effectively reduced stripe rust. The highest yields of both Harrington and Steptoe were from plots sprayed with Quadris.

Cultivar / Treatment ^a	Stripe rust (%) ^b		Yield ^c	
	June 20 Boot stage	July 10 Milk stage	Mean (lb/A)	Increase (%)
Harrington				
Quadris 2.09SC + Agridex COC (1.6)	2 a	0 a	7969 a	35
Stratego 250EC (2.6)	1 a	0 a	7966 a	35
Folicur 3.6F 38.7 + Induce (1.8)	3 a	0 a	7594 a	29
Tilt 3.6EC (1.8)	2 a	11 a	7091 a b	20
Non-Treated Control	2 a	50 b	5906 b	
Steptoe				
Quadris 2.09SC + Agridex COC (1.6)	3 a	0 a	9680 a	33
Stratego 250EC (2.6)	3 a	1 a	8813 a b	21
Folicur 3.6F 38.7 + Induce (1.8)	6 a	0 a	9149 a b	22
Tilt 3.6EC (1.8)	3 a	7 a	8179 b c	13
Non-Treated Control	6 a	65 b	7255 c	

^a Treatments were applied on 20 June at the boot stage as oz of active ingredient in water at 20 gal/A at the rates indicated in parentheses. Folicur was applied with Induce at 0.06% v/v. Quadris was applied with Agridex COC at 1% v/v.

^b Rust data were the means of four replications for each treatment; rust means for each cultivar followed by the same letter are not significantly different, Duncan’s Multiple Range Test ($P = 0.05$).

^c Yield data were the means based of four replications of 135 sq ft each. Yield means for each cultivar followed by the same letter are not significantly different, Duncan’s Multiple Range Test ($P = 0.05$).