WHEAT (*Triticum aestivum* 'Whitebird')
Stripe rust; *Puccinia striiformis*

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Fungicide treatments for control of stripe rust in spring wheat in 2006.

The trial was established in a field at the university research farm in Bingham County, ID. The field had been cropped to green manure oats in the preceding year. The soil type is a Declo loam of 0-2% slope and 1.3% organic matter. Experimental plots (5 x 14 ft planted, 5 x 10 ft harvested) of the stripe rust susceptible variety 'Whitebird' (infection type 9) were arranged in a randomized complete block design with 4 replicates. Plots of the susceptible spring wheat variety 'Jubilee," also having an infection type 9, were planted as buffer and rust spreader rows between plots. Fungicide treatments were applied at different timings, combinations, and rates. Fungicide applications at herbicide treatment were applied as a foliar treatment the same day that the herbicides were applied. Seed was planted at 1 million/A on 20 April. Row spacing was set at 7-in. with seven rows per plot, planted using a double disk opener with a Hege 500 series drill. Weeds were controlled by 2.0 pt/A Maestro MA applied 31 May. Natural inoculum appeared in the local area 1 Jun and was confirmed in the plots 29 Jun. The percent leaf area affected by stripe rust was rated on plots 20 Jul when plants were in Feekes growth stage 11. Plots were harvested 18 Aug with a small plot combine. Yield and test weight were determined. Data were analyzed using general linear model (Proc GLM) in SAS. Fisher's protected LSD was used for mean comparisons.

There was significant stripe rust disease development on the untreated control treatment with 65% of the leaf area affected. Yields were significantly different at $P \leq 0.05$. There was no increase in yield or reduction in percent leaf area diseased when fungicide was applied at the late tillering growth stage. There was no significant difference in test weight means. The most effective disease control came when application was timed closely to appearance of the disease in the local area..

Product	Rate fl oz/A	Application timing Feekes growth stage	Yield bu/A	Test wt lbs/bu	% Leaf area diseased
Untreated control	-	-	69.7	58.8	65.6
Quilt 200 SE w/ Maestro MA	7	3	71.0	57.3	50.0
Headline 2.09 EC w/ Maestro MA	6	3	72.5	59.1	63.8
Quilt 200 SE	7	6	76.0	58.3	6.3
Tilt 3.6 EC	4	7	77.9	58.6	25.0
Quilt 200 SE	14	7	70.3	59.5	28.8
Headline 2.09 EC	6	7	78.8	55.8	56.3
Headline 2.09 EC	6	8	82.5	58.5	26.3
Headline 2.09 EC + Tilt 3.6 EC	4 + 3	9	79.9	59.3	7.5
Quilt 200 SE	14	9	86.6	58.4	8.8
Headline 2.09 EC + Tilt 3.6 EC	4 + 4	9	84.9	58.6	8.8
Headline 2,09 EC + Tilt 3.6 EC	3 + 4	9	82.0	59.0	8.8
Headline 2.09 EC + Tilt 3.6 EC	4 + 2	9	81.7	58.7	12.5
Quilt 200 SE	7 + 14	6 and 9	71.5	59.1	2.5
		LSD (0.05)*	10.1	NS	18.2
		CV	9	2.5	43.9

* LSD = Fisher's protected least significant difference value. NS = not significantly different