

**Evaluation of selected fungicide rates and application timings for managing stripe rust, 2004.**

Wheat was planted (95 lb seeds/A) 6 Nov in a field with a Gigger silt loam soil at the Macon Ridge Research Station near Winnsboro, LA. Standard chemical and cultural practices for wheat production were implemented according to Louisiana Cooperative Extension Service recommendations. Treatments were replicated three times in a randomized complete block. Blocks were separated by 15 ft alleys. Plots were 8 rows (7.5-in. spacing) by 15 ft. Rainfall totals for Feb, Mar, Apr, and May were 9.85, 3.44, 3.74, and 7.79 in., respectively. Fungicide treatments were applied on 18 Mar at Feekes' growth stage F8 (flag leaf emergence) or 30 Mar at Feekes' F10.2 (50% heading) using a CO<sub>2</sub>-charged hand-held boom configured with Hypro ULD 120-015 nozzles spaced 19-in. apart calibrated to deliver 13.1 gal/A at 26 psi. Percent area of the flag leaf and flag leaf minus one colonized by *Puccinia striiformis* was assessed on 14 Apr and 20 Apr. On 24 May plots were harvested and test weights recorded. Data were subjected to analysis of variance and treatment means were compared using Fisher's protected least significant difference test.

Stripe rust severity was present at low levels during late March and increased dramatically by 14 Apr. Less rust incidence was observed in all fungicide-treated wheat compared to the non-treated. Stripe rust severity was less in wheat treated with Tilt 3.6EC, Propimax 3.6EC, Quilt, or Stratego than in Quadris 2.08SC or Headline 2.08EC treated wheat. Early applications resulted in less rust severity than later applications, indicating the importance of timing for managing this disease. Yields and test weights did not vary among treatments.

Treatment and rate/A	GS @ Appl <sup>z</sup>	14 Apr Stripe rust <sup>y</sup>	20 Apr Stripe rust <sup>y</sup>	Test weight (lb/bu)	24 May Yield (bu/A)
Non-treated.....	--	72.5	92.5	54.4	88.4
Tilt 3.6EC 4.0.....	F8	0.8	16.3	55.9	97.9
Quadris 2.08SC 6.2 fl oz.....	F10.2	31.3	63.8	57.1	91.1
Headline 2.08EC 6.1 fl oz.....	F10.2	35.0	68.8	53.9	91.9
Stratego 10.0 fl oz.....	F8	2.5	28.3	55.7	95.5
Tilt 3.6EC 2.0 fl oz	F8				
Quadris 2.08SC 3.1 fl oz.....	F10.2	1.8	16.0	56.2	95.9
Quilt 8.0 fl oz.....	F8	3.0	30.8	55.2	96.5
Propimax 3.6EC 4.0 fl oz.....	F8	2.5	15.5	55.2	96.2
LSD (P=0.10) <sup>x</sup>		16.7	12.5	4.1	11.5

<sup>z</sup>Growth stage at fungicide application.

<sup>y</sup>Percent leaf area of flag leaf and flag leaf minus one leaf covered by rust pustules.

<sup>x</sup>Treatment means were compared using Fisher's protected least significant difference test, alpha level 10%.