

EFFECTS OF FUNGICIDE TREATMENT ON WHEAT YIELD AND GRADE 2000-01

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Location: Edisto Research and Education Center, Barnwell Co. SC, Field B-5 A.

Design: RCB with six replicates; plot size 8 rows (8" spacing) x 40'

Soil Type: Varina sandy loam.

Rotation: 1999-2000 wheat

**Seeding
Rate:** 24 seed / row foot

General

Fertility: No pre-plant fertilizer based on soil test. 30 lbs./acre N (11.3 gal S-25) was applied 15 Dec (early post-emergence) and 70 lbs./acre N (26.4 gal S-25) was applied 23 Feb (GS 23). Total N = 100 lbs./acre, total S = 14 lbs./acre.

Herbicide: 0.28 oz Express 75DF was applied with N on 23 Feb.

Insecticide: None

Methods: Fungicides were applied 5 Apr (boot stage, GS 47) with a tractor-mounted CO₂ pressurized sprayer delivering 20 gpa @ 30 psi through Tee Jet 11003 flat fan tips. The boom was shielded with Red Ball broadcast hoods to prevent drift. Disease ratings were taken by two observers May 1 (early soft dough, GS 80), each counting rust pustules on five flag leaves of each untreated check plot. The inner six rows of each 8-row plot were harvested 1 June with an Almaco plot combine. Yield samples were weighed on an electronic balance. Test weight was taken by funneling a sub-sample of grain through a Seedburo No. 151 filling hopper and weighing one dry pint of grain on an electronic scale. Grain moisture content was measured with a Burrows DMC-700 moisture meter. All yields were adjusted to 13.5% moisture before analysis.

Analysis: ANOVA, using SAS PROC GLM.
Fisher's protected LSD was used for mean separation ($P=0.05$).

Table 1. Wheat fungicide effects on yield and test weight, Blackville, SC 2000-01.

Treatment	Rust pustules/flag leaf May 1*	Yield bu/ac	Test weight lb/bu
Quadris 7.7 oz/ac	---	86 a	58.5 a
Quadris 4.0 oz/ac	---	86 a	58.5 a
Stratego 10oz/ac	---	86 a	58.3 a
Untreated Check	1.05	86 a	58.4 a
Tilt 4.0 oz/ac	---	85 a	58.6 a
Folicur 4.0 oz/ac	---	84 a	58.5 a

Yield LSD = 4.1 bu/ac ($P=0.05$); Test weight LSD = 0.4 lb/bu.

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Means followed by the same letter are not significantly different, Fisher's protected LSD ($P=0.05$).

Coker 9835 planted 30Nov 2000; harvested 1Jun 2001.

* Fungicide treatments were applied 5 Apr prior to head emergence (boot stage). Disease rating was taken @ late milk-early soft dough.