

The Evaluation of Fungicides for the Management of Red Thread (*Laetisaria fuciformis*) in Perennial Ryegrass (*Lolium perenne*)

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This test was conducted at the Ohio State University's Turfgrass Research Center, Columbus, Ohio, in 2003 on a stand of perennial ryegrass consisting of a blend of three cultivars at one third each, of 'PS-8990,' 'Buccaneer,' and 'Boardwalk.' The stand was established in 1994.

The mowing height was 3.5 inches, clippings were returned to the plots, and the area was not irrigated. The condition of the sward was fair with no thatch; it had a thin density. No fertilizer was applied in 2003 prior to the study. The soil was Crosby B silt loam with a pH of 7.3.

Individual plots measured 6' x 10', with 6' between blocks, and were arranged in a randomized complete block design with three replications. Treatments were applied with a hand-held, CO₂-powered boom sprayer, with 6503 TeeJet nozzles at 40 psi (water equivalent to 2.0 gallons of water / 1,000 sq ft).

Applications were made on May 8, May 22, and June 6, except for three treatments which received only a single application on May 8. The ratings were done by visually assessing the percent of plot area blighted by the disease red thread on a

linear scale of 0 to 100% scale, where 0 equals no blight and 100 equals entire plot blighted. Analysis of variance was performed with least significant difference at the $P \leq 0.05$ level.

The average high and low air temperatures (F) and rainfall for each month respectively were:

Month	Average High	Average Low	Rainfall
April	67.0°F	42.4°F	2.1"
May	71.1°F	52.5°F	11.4"
June	78.4°F	57.4°F	2.6"

Red thread developed in early May in the test area from natural disease inoculum. Treatments were initiated just at the onset of the disease. Significant disease reduction was observed in 13 days (May 21) by all treatments.

Cuprofix, Bayleton, Heritage, and Endorse all showed exceptional red thread control throughout the study. Rust developed in July, and the plots were rated 35 days after the last application for treatments that received the last application on June 6, and 65 days after the treatments that received a single application on May 8.

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Treatment, Formulation, and Rate per 1,000 Sq Ft	% Plot Blighted by Red Thread				% Plot Blighted by Rust
	May 12	May 21	May 29	June 6	July 11
Untreated	5.0	8.3	15.0	13.3	16.7
Medallion 50WP 0.25 oz *	5.3	1.0	5.0	3.0	43.3
Medallion 50WP 0.33 oz*	6.7	3.0	1.7	2.0	33.3
Medallion 50WP 0.5 oz *	4.0	2.3	1.0	0.7	26.7
Cuprofix MZ 30 42DF 6 oz	3.3	0.3	0.0	0.0	16.7
Bayleton 50DF 0.5 oz *	3.3	2.3	0.7	0.0	3.0
Heritage 50WG 0.2 oz**	3.3	0.0	0.0	0.0	13.3
Bayleton 50DF 1 oz**	6.0	1.0	0.3	0.0	4.7
Endorse 2.5WP 4 oz*	3.7	0.0	0.0	0.0	7.3
LSD- $P \leq 0.05$	2.5	2.5	4.2	3.4	19.2
* Treatments were made on May 8, May 22, and June 6.					
** A single application was made on May 8.					

