

Evaluations of fungicides for the control of large patch in zoysiagrass, 2010-2011.

Host:

Zoysiagrass (*Zoysia japonica* 'Meyer')

Target Disease/Pathogen:

Large Patch; *Rhizoctonia solani*

Fungicides were evaluated for the control of a natural infestation of large patch at the University of Missouri Turfgrass Research Facility in Columbia, MO on 'Meyer' zoysiagrass. The soil was a Mexico silt loam. Mowing was performed one to two times weekly at a height of 1.0 in. Nitrogen was applied using Urea 46-0-0 at (0.5 lbN/1000 sq ft) on 14 Apr and 11 May. Plots were 10 ft × 10 ft and were arranged in a randomized complete block with four replications. Treatments were applied in water equivalent to 2.0 gal/1000 sq ft with a CO₂-powered sprayer at 25 psi using TeeJet 8008 nozzles. All treatments were initiated on 21 Sep. Disease severity and turfgrass quality were assessed every 7 to 14 days from initial symptom development. Disease severity was assessed as a visual estimation of the percent symptomatic area within the plot. Turfgrass quality was evaluated using a 1 to 9 scale (9=best, 5=acceptable) based on color, density, and uniformity. Data were subjected to analysis of variance and means separation by Waller-Duncan k-ratio t-test (k=100).

Large patch symptoms first became apparent on 5 May. Disease severity increased rapidly by 12 May, and adversely impacted turf quality on untreated plots and plots treated solely with Affirm. Plots treated with Torque and ProStar had the lowest large patch severity throughout the trial. Affirm followed by Torque also provided acceptable control in May, but large patch suppression broke down in early June. Turf quality was negatively affected by large patch alone, with no noticeable phytotoxic effects observed in treated plots.