

Evaluation of multiple fungicides for large patch control on fairway height zoysiagrass, 2011-2012.

Host:

Zoysiagrass (*Zoysia japonica* 'Meyer')

Target Disease/Pathogen:

Large Patch; *Rhizoctonia solani* AG2-2 LP

Fungicides were evaluated for control of large patch at St. Andrew's Golf Course in Overland Park, KS on 'Meyer' zoysiagrass. Mowing was performed one to two times weekly at a height of 0.625 in. Plots were 5 ft × 10 ft and were arranged in a randomized complete block with four replications. Fall and/or spring treatments were applied in water equivalent to 2.0 gal per 1000 sq ft with a CO₂-powered sprayer at 28 psi using TeeJet 8008 nozzles. Disease severity and turfgrass quality were assessed every 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 were first observed on 28 Mar following a warm spring and early spring greenup period. On both the 19 Apr and 17 May rating date, large patch severity was significantly lower and turf quality was significantly higher in all treated plots than the untreated control. By 29 Apr, plots treated with single applications of Heritage and Triton Flo at the low rates on 14 Sep 2011, tended to have lower large patch severity than the same rate applied on 12 Oct 11. On 17 May, large patch severity peaked in the plot area. Plots treated with Torque (AB) followed by CX-55 (C) had the lowest disease severity (10%) among treatments, but no treatment sufficiently controlled the disease. Similar results were observed for turf quality. Turf quality was highest and marginally acceptable in plots treated with Torque (AB) followed by CX-55 (C). No phytotoxicity or delay in spring greenup was observed as a result of any fungicide treatment.