Evaluation of fungicides for the control of large patch on zoysiagrass, 2011-2012.

Host:
Zoysiagrass (*Zoysia japonica* 'Meyer')

Target Disease/Pathogen:
Large Patch; *Rhizoctonia solani* AG2-2 LP

Fungicides were evaluated for the control 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 1.25 in. Plots were 5 ft × 10 ft and were arranged in a randomized complete block with four replications. Plots were inoculated on 28 Sep by placing 1.52 in^3 of rye grain (*Secale cereale* L.) infested with *Rhizoctonia solani* AG2-2 LP under a metal plate until 23 Mar. Treatments were applied in water equivalent to 2.0 gal per 1000 sq ft with a CO_2-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 14 Oct in all plots except ProStar. Following an early spring greenup period due to a warmer than normal March, large patch symptoms were observed on 13 April in all plots except those treated with Disarm (ABC), and Heritage (A) followed by Velista (BC). All treated plots had statistically lower large patch severity than untreated control plots from mid April through early June. Disease severity was not statistically different among treatments, however, plots treated with Heritage (A) followed by Velista (BC) and Heritage alone (AC) tended to have numerically less large patch than other treatments on rating dates in May and early June. All fungicide treated plots, except those treated with Velista alone (AC & ABC), had statistically higher turf quality than the untreated control. No phytotoxicity or delay in spring greenup was observed as a result of fungicide treatment.