

Evaluation of fungicides for the control of fairy ring on creeping bentgrass, 2010.

Host:

Creeping Bentgrass (*Agrostis stolonifera* 'Penncross')

Target Disease/Pathogen:

Fairy ring; *Unknown species*

Fungicides were evaluated for control of fairy ring at Columbia Country Club in Columbia, MO on 'Penncross' creeping bentgrass. Mowing was performed six to seven times weekly at a height of 0.125 inches. Plots were 5 ft x 10 ft and were arranged in a randomized complete block with four replications. Treatments were applied in water equivalent to 2.3 gal per 1000 ft² with a CO₂ powered sprayer at 40 psi using TeeJet 8008 nozzles. All treatments were applied twice, on 3 Jun and 25 Jun. Disease severity, turfgrass quality, and phytotoxicity were assessed every 7-14 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).

Substantial turf decline was noticed in several plots due to the extended duration of hot and humid temperatures. Type II fairy ring symptoms (green, lush rings) were apparent before the first fungicide application on 3 Jun, with moderate disease severity occurring in the plot area throughout the season. All fungicide treated plots had significantly lower fairy ring severity than untreated plots. On all rating dates, no statistical difference in mean fairy ring severity was observed among the fungicide treated plots. Tourney and Trinity tended to be the most effective as curatively, with no fairy ring symptoms observed in these plots after the treatment. Plots treated curatively with Bayleton FLO and Prostar had less fairy ring symptoms than untreated plots, but did not exhibit a satisfactory level of control. Turfgrass quality was higher for all fungicide treated plots compared to untreated controls throughout most of the growing season. Turfgrass quality declined later in the season in plots treated with ProStar and Bayleton FLO.

In this study, applications of Tourney and Trinity provided the best fairy ring control (on a curative basis) as well as overall turfgrass quality. Quality was similar for all fungicide treated plots until early August, when turf in ProStar and Bayleton Flo treated plots declined to below acceptable levels.