

## Evaluation of two spring preventive applications of Bayleton Flo, Tartan, and Torque for disease control on creeping bentgrass, 2013.

### Host:

CREEPING BENTGRASS (*Agrostis stolonifera* 'Penncross')

### Target Disease/Pathogen:

Dollar spot; *Sclerotinia homoeocarpa*

Brown patch; *Rhizoctonia solani*

Fungicides were evaluated for early season disease control at the University of Missouri Turfgrass Research Facility in Columbia, MO on 'Penncross' creeping bentgrass naturally infested with dollar spot. Mowing was performed at a height of 0.130 in three and five times weekly from 2 Apr to 7 Jun and 7 Jun to 9 Sept, respectively. Nitrogen was applied using Signature™ (13-2-13) on 15 and 22 Apr at 0.20 lb N/1000 sq ft. From 23 May – 3 Sept, 0.25 lb N/1000 sq ft was supplied every two to three weeks with UMaxx™ (47-0-0) + Knife Plus (12-0-0) or Ferromecc (10-2-4) + micros (0.01 lb N/1000 sq ft). Revolution (6.0 fl oz/1000 sq ft) was applied every 28 days starting on 8 May. Plots were 5 ft × 5 ft and arranged in a randomized complete block design with four replications. Treatments were applied in water equivalent to 2 gal per 1000 sq ft with a CO<sub>2</sub> powered sprayer at 26 psi using TeeJet 8008 nozzles. No pathogen inoculation was conducted on the trial area. Disease severity and turfgrass quality were assessed every 14 days from initial symptom development. Disease severity was assessed as a visual estimate of the percent symptomatic area and counts of infection centers per 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 using Fishers Protected LSD (P=0.05).

Preventive applications of Bayleton Flo, Tartan, and Torque were applied twice on 29 Apr and 27 May. Dollar spot was first observed in the plot area on 25 Jun rating date. Dollar spot pressure was low through June and July, but increased rapidly in early August – Sept. No significant differences in dollar spot severity were noted throughout the trial period among treated and untreated plots. Dollar spot was not observed in Bayleton treated plots until 5 Aug. After that date, dollar spot severity tended to be lowest in plots treated with Torque applied at 1.1 fl oz/1000 sq ft. Brown patch was observed from Jun – Sept. No significant differences in brown patch control were noted in treated and untreated plots. Turf quality remained above acceptable levels in treated plots until the 22 July rating date, when an increase in brown patch and dollar spot severity negatively impacted quality. Turf quality continued to decrease into Aug in all treated and untreated plots due to an increase in disease pressure. No phytotoxicity was observed as a result of any treatment.