

Evaluation of fungicides for preventative control of brown patch on creeping bentgrass, 2003.

Tests were conducted on a Bridgehampton silt loam located at the Skogley Memorial Turfgrass Research Facility at the University of Rhode Island. The turf was maintained at a 0.17 inch mowing height, irrigated regularly and a total of 6 lbs N was applied in four separate applications throughout the course of the season (4 lbs as a slow release and 2 lbs as a quick release foliar). Plots measured 5 ft x 5 ft with no borders and were arranged in a randomized complete block design with three replicates on an original mixture of 83% ‘Penncross’ and 17% ‘Penneagle’ creeping bentgrass with minimal *Poa annua* invasion. Fungicides were applied using a CO₂-pressurized hand held sprayer fitted with TeeJet 8004VS Visiflow flat fan nozzles delivering 3.2 gallons/1000 sq. ft at 40 psi. All treatments were first applied on 25 July before brown patch started to appear. All other sprays were made on approximately a 14 day interval (12 Aug, 27 Aug). Plots were artificially inoculated with *R. solani* on 2 July, 28 July and 13 Aug with approximately 22 g of 5 week old infected rye.

Although plots were artificially inoculated on three separate occasions, the incidence of brown patch was very low. Measurable disease was only observed on a single rating date, as indicated below. In order to increase infection, irrigation was applied at least three times a day and additional foliar N was applied during the months of June and August. When the original culture used for inoculation was tested in the greenhouse, aggressive disease was observed on creeping bentgrass. It is most likely that the failure in disease expression resulted from daily high winds experienced at the research facility that were present throughout the season. No fungicide resistance was observed. In future years, fences will be installed around research plots to act as windbreaks to increase surface humidity.

Treatment and rate per 1000 sq ft	% brown patch 7 Aug
Control	5.67 a *
Triton 70WG 6 oz	0.67 b
Triton 70WG 6 oz and Signature 80WDG 4 oz	0.00 b
Lynx 45WG 1.2 oz	2.67 ab
Lynx 45WG 1.2 oz and Signature 80WDG 4 oz	0.17 b
Banner MAXX 1.3MEC 1 fl oz.	0.67 b
Signature 80WDG 4 oz	5.30 a
Compass 50WP 0.15 oz	0.67 b
Heritage 50WP 0.2 oz	0.00 b
Rotational Tankmix**	0.33 b
Spectator 0.37 fl oz	1.67 b
18 Plus 4 fl oz	1.33 b

* Plots were rated based on the percentage of symptomatic plot area. Means within a column followed by the same letter are not statistically different, according to the General Linear Model procedure and Waller-Duncan k-ratio t-test (k=100, P=0.05) of SAS (Cary, NC).

** First application: Signature 80WDG 4 oz and Bayleton 50WDG 1 oz. Second application: Signature 80WDG and Daconil Ultrex 82.5WP 3.2 oz. Third application: Signature 80WDG 4 oz, Compass 50WP 0.15 oz and Chipco 26GT 3 oz.