CREEPING BENTGRASS (*Agrostis palustris* cvs Penncross and Penneagle)
Dollar spot; *Sclerotinia homoeocarpa*

Nathaniel Mitkowski
Katerina Jordan
Brian Boesch
Dept. of Plant Sciences
University of Rhode Island
9 E. Alumni Ave., Suite 7
Kingston, RI 02881

Evaluation of fungicides for preventative control of dollar spot 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 as needed and a total of 4 lbs N was applied in four separate applications throughout the course of the season as a slow release formulation. 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 CO_2-pressurized hand held sprayer fitted with TeeJet 8004VS Visiflow flat fan nozzles delivering 3.2 gal/1000 sq ft at 40 psi. All treatments were first applied on 10 Jun before dollar spot started to appear. All other sprays were made on approximately a 14 day interval (25 Jun, 9 and 25 July, 12 Aug) with the exception of the 0.18 oz rate of Emerald, which was applied every 21 days (10 Jun, 9 Jul, 12 Aug). Hand scattered application of *S. homeocarpa* was made to each plot on 2 Jun with approximately 22 g of 8 week old colonized rye.

Inoculation provided adequate levels of disease, with a maximum of 11.0% in control plots. Most of the chemicals employed in this study provided effective dollar spot control, at a disease threshold of approximately 1.0%. The only chemical that did not provide acceptable control of the disease was ZeroTol. Trials demonstrated that Concorde, rotated with Aviator and Junction, was effectively similar to straight applications of Daconil. Systemic fungicides all provided excellent control (0% disease) on a 14 day spray schedule, with the exception of Insignia. While Insignia was effective on three of the rating dates, significant disease was observed on 25 Jul, although symptoms were considerably less than the untreated control. No fungicide resistance was observed.

	% dollar spot			
Treatment and rate per 1000 sq ft	24 June	8 Jul	25 Jul	9 Aug
Control	3.7 a *	3.0 a	7.7 a	11.0 a
Topsin 70WP 3 oz	0.0 d	0.0 d	0.0 d	0.0 b
Topsin 4.5F 4 fl oz	0.0 d	0.0 d	0.0 d	0.0 b
Emerald 70WG 0.13 oz	0.0 d	0.0 d	0.0 d	0.0 b
Emerald 70WG 0.18 oz	0.3 d	0.0 d	0.0 d	0.0 b
Insignia 20WG 0.9 oz	0.3 d	1.0 c	2.0 bc	1.0 b
Emerald 70WG 0.13 oz rotated w/ Insignia 20WG 0.9 oz	0.7 cd	0.0 d	0.3 cd	1.0 b
Propiconazole Pro 1.3MEC 1 fl oz	0.0 d	0.0 d	0.0 d	0.0 b
26GT 2SC 4 fl oz	0.0 d	0.0 d	0.0 d	0.0 b
TADS 15557 2.8SC 2.7 fl oz	0.0 d	0.0 d	0.0 d	0.3 b
TADS 15557 2.8SC 5.4 fl oz	0.0 d	0.0 d	0.0 d	0.0 b
Spectator 3.6MEC 0.37 fl oz	0.0 d	0.0 d	0.0 d	0.0 b
18 Plus 2SC 4 fl oz	0.0 d	0.0 d	0.0 d	0.0 b
Concorde 82.5DF 3.2 oz rotated w/ Junction 61DF 2 oz + Aviator 1.3MEC 1 fl oz **	1.3 bc	0.0 d	1.0 bcd	0.3 b
Concorde 82.5DF 3.2 oz rotated w/ Junction 61DF 4 oz + Aviator 1.3MEC 1 fl oz	1.7 b	1.0 c	1.0 bcd	0.7 b
Daconil Ultrex 82.5WG 3.2 oz	0.3 d	0.7 cd	1.0 bcd	1.3 b
Cleary's 3336 50WP 3 oz	0.0 d	0.0 d	0.0 d	0.0 b
ZeroTol 1.25 fl oz	0.7 cd	2.0 b	2.3 b	5.0 b
Banner MAXX 1.3MEC 1.0 fl oz	0.0 d	0.0 d	0.0 d	0.0 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).

** Concorde applications made on 10 Jun, 9 Jul and 12 Aug. Junction + Aviator tankmixed applications were made on 25 Jun and 25 Jul.