

## Evaluation of Fungicides for Control of Dollar Spot in Fairway Height ‘Penneagle’ Creeping Bentgrass, 2005

*M.L. Gleason and D.S. Mueller, Department of Plant Pathology*

Trials were conducted at the Iowa State University Horticulture Station in Gilbert, Iowa. Creeping bentgrass (cv. Penneagle) was maintained at 0.5-inch cutting height. On 7 Jun, all plots were inoculated with rye grain infested with *Sclerotinia homoeocarpa*. Fungicides selected for activity against dollar spot, were applied using a backpack sprayer at 30 psi and a dilution rate of 5 gal per 1000 sq ft. The experimental design was a randomized complete block with four replications. All plots measured 4 ft x 5 ft. Spray applications were initiated on 10 Jun, followed by re-application at recommended intervals until 8 Aug. Visual estimates of disease severity of each plot with dollar spot symptoms were made at approximately 7-day intervals starting on 7 Jul. Area under disease progress curve (AUDPC) values were calculated from all disease estimates. Data were analyzed using the GLM procedure in SAS, and mean separations were determined using Fisher’s protected LSD at  $P \leq 0.05$ .

Disease pressure was low to moderate due to dry conditions throughout July. For the overall rating (AUDPC value), all of the tested products suppressed dollar spot significantly ( $P \leq 0.05$ ) in comparison to the unsprayed check. For weekly ratings, a few products, i.e. Heritage TL, did not suppress dollar spot significantly at some dates. No phytotoxicity symptoms were observed during the trial.

Products and rates per 1000 sq ft	Interval (days)	Dollar spot (%) <sup>z</sup>				AUDPC <sup>y</sup>
		7 Jul	15 Jul	27 Jul	8 Aug	
Unsprayed check.....	---	3.0 a	2.9 a	1.3 a	8.3 a	101.5 a
Banner MAXX 1.3 MEC 1 fl oz.....	21 d	0.1 b	0.0 b	0.0 b	0.0 b	0.5 b
Banner MAXX 1.3 MEC 1 fl oz + Heritage TL 1 fl oz.....	21 d	0.3 b	0.4 b	0.0 b	0.3 b	7.6 b
Banner MAXX 1.3 MEC 1 fl oz + Heritage TL 0.5 fl oz.....	21 d	0.0 b	0.1 b	0.1 b	0.0 b	1.3 b
Banner MAXX 1.3 MEC 1 fl oz + Heritage TL 0.5 fl oz.....	14 d	1.0 ab	0.0 b	0.0 b	0.0 b	4.0 b
Heritage TL 1 fl oz.....	14 d	1.0 ab	0.6 ab	0.0 b	0.0 b	10.3 b
Heritage TL 1 fl oz.....	21 d	1.8 ab	0.8 ab	0.5 ab	3.0 b	36.8 b
Heritage TL 0.5 fl oz.....	14 d	1.5 ab	1.3 ab	0.0 b	0.3 b	19.9 b
LSD (0.05) <sup>x</sup>	---	2.4	2.2	1.1	3.7	60.7

<sup>z</sup>Percent plot symptomatic.

<sup>y</sup>AUDPC= area under disease progress curve. This value is calculated from all disease estimates and represents disease development over the entire season.

<sup>x</sup>Means followed by the same letter are not significantly different according to Fisher’s protected LSD at  $P \leq 0.05$ .