

Preventative fungicide applications for control of dollar spot on creeping bentgrass in Kansas, 2010.

Fungicides were evaluated on an established stand of a ‘Cato’ plus ‘Crenshaw’ blend of creeping bentgrass on a sand-based putting green at the Rocky Ford Turf Research Center, Manhattan KS. The turf was mowed to a height of 0.156-in. and irrigated daily for 15 min. The area was fertilized biweekly with 0.25 lb nitrogen (N)/1,000 ft² during Mar through Jun and 0.16 lb N/1,000 ft² during Jul through Nov. Fungicide applications were made at variable intervals beginning 24 May using a CO₂-powered boom sprayer equipped with two XR Tee Jet 8004VS nozzles at 30 psi in water equivalent to 2.0 gal/1,000 ft². Plots were 4 ft × 5 ft and arranged in a randomized complete block design with four replications. Plots were assessed periodically by visually estimating the percentage of each plot affected by dollar spot infection centers.

Dollar spot was present on several rating dates and did not exceed 10% severity in the untreated controls during the course of the experiment. All fungicides reduced dollar spot symptoms to < 2.5% severity and most treatments reduced disease compared to the untreated control. There were no significant differences among treatments. Phytotoxicity, evident as slight thinning and suboptimal color, was observed in the Concert treatments on 3 rating dates, typical of repeated applications of demethylation inhibitor fungicides in turfgrass. Concert contains the DMI fungicide propiconazole. No phytotoxic effects were observed in Reserve treatments, which contain the DMI fungicide triticonazole.

Treatment and rate per 1,000 ft ²	Application timing ^z (days)	Dollar spot severity ^y				
		9 Jun	17 Jun	7 Jul	15 Jul	2 Aug
Untreated control	Not Applicable	2.0 a	9.0 a	2.8 a	4.8 a	9.0 a
Reserve 4.8SC 2.5 fl oz	0, 16, 29, 35, 43, 51, 57	0.8 a	1.0 ab	0.0 a	2.0 ab	0.0 b
Reserve 4.8SC 3.2 fl oz	0, 16, 29, 35, 51	1.8 a	0.8 ab	0.0 a	0.0 b	0.0 b
Reserve 4.8SC 3.5 fl oz	0, 16, 29, 35, 51	0.8 a	0.0 b	0.0 a	0.0 b	0.0 b
Concert 4.3SE 5.5 fl oz.....	0, 16, 29, 35, 51	0.5 a	0.5 b	0.0 a	0.0 b	0.0 b
Interface 2.27SC 3.0 fl oz.....	0, 16, 29, 35, 51	0.3 a	2.3 ab	0.0 a	0.0 b	0.0 b
Interface 2.27SC 4.0 fl oz.....	0, 16, 29, 35, 51	0.0 a	0.0 b	0.0 a	0.0 b	0.0 b
Interface 2.27SC 5.0 fl oz.....	0, 16, 29, 35, 51	0.0 a	0.0 b	0.0 a	0.0 b	0.0 b
Iprodione Pro 2SE 4.0 fl oz.....	0, 16, 29, 35, 51	0.3 a	0.0 b	0.0 a	0.0 b	0.0 b
Emerald 70WG 0.13 oz.....	0, 16, 29, 35, 51	0.0 a	0.0 b	0.0 a	0.0 b	0.0 b
Honor 28WG 0.83 oz	0, 16, 36, 51					
alternate Iprodione Pro 2SE 4 fl oz.....	29	0.3 a	0.3 b	0.3 a	0.0 b	0.0 b
Velista 50WDG 0.3 oz.....	0, 16, 29, 43, 57	1.8 a	2.0 b	0.3 a	0.0 b	0.0 b
Velista 50WDG 0.5 oz.....	0, 16, 29, 43, 57	0.5 a	0.3 b	0.3 a	0.0 b	0.0 b
Renown 5.16SC 4.5 fl oz.....	0, 16, 29, 43, 57	0.8 a	1.5 b	0.0 a	0.0 b	0.0 b
Heritage TL 0.8ME 2 fl oz + Daconil Weatherstik 6F 3.6 fl oz	0, 16, 29, 43, 57	0.5 a	0.5 b	0.0 a	0.0 b	0.0 b

^zThe first application date was 24 May (day 0), values reflect date of application relative to the first application.

^yValues represent the average percentage of plot area blighted by dollar spot infection centers. Means within columns followed by the same letter are not significantly different according to Tukey’s pairwise comparisons (family error rate *P*=0.05). Values were square-root transformed for analysis but actual percentage values are displayed.