

Preventative dollar spot control at fairway height.

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OBJECTIVE

To determine the efficacy of standard and experimental fungicides for controlling dollar spot caused by the fungus *Sclerotinia homoeocarpa*.

MATERIALS AND METHODS

The study was conducted at the O. J. Noer Turfgrass Research and Education Facility on a stand of creeping bentgrass (*Agrostis stolonifera* 'Penneagle') maintained at 0.5 inches. The individual plots measured 3 feet by 5 feet and were arranged in a randomized complete block design with four replications. Individual treatments were applied at a nozzle pressure of 40 p.s.i. using a CO₂ pressurized boom sprayer equipped with two XR Teejet 8005 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000 ft². All treatments except 23-34 were initiated June 3rd and subsequent applications were made at either 14 or 21 day intervals. Number of dollar spot infection centers per plot and quality (1-9, 9 being excellent and 6 acceptable) were visually assessed and the data was subjected to an analysis of variance to determine statistical differences between treatments. A list of treatments as well as their rates and spray intervals can be found on the following page.

RESULTS AND DISCUSSION

Dollar spot disease pressure was highest in mid-August, which is reflected in the rating on August 18th. At this date, no treatments completely controlled dollar spot. All treatments with the exception of 3, 6, 16-17, 19-20, 22, 27, 29, and 31-32 provided a significant reduction in dollar spot compared to the untreated controls. Though no treatment provided complete control of dollar spot, treatments 8, 12, 18, 23-24, and 30 provided the most effective control of dollar spot under this high pressure. Acceptable turfgrass quality was not provided by most treatments on the August 24th rating date, mostly due to dollar spot breakthrough. The highest turfgrass quality was provided by treatments 10-11, 21, 23-24, 26, and 30.



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Table 1. Mean number of dollar spots per treatment at fairway height at the OJ Noer Turfgrass Research Facility in Verona, WI in 2009.

Treatment	Rate	Application Interval	Dollar Spot Disease Severity* (Mean number of dollar spots per treatment)				Turf Quality	
			Jun 30	Jul 7	Jul 27	Aug 18	Aug 24	
1	Non-treated control		30.0a-e	34.3a	35.5abc	143.0def	3.0fgh	
2	BAS 50017F	0.54 FL OZ/1000 FT2	14 Day	6.3cde	1.8b	4.3ef	50.0gh	5.5a-e
	Trinity	1.0 FL OZ/1000 FT2	14 Day					
3	BAS 50017F	0.71 FL OZ/1000 FT2	21 Day	4.0de	1.5b	3.0ef	115.3d-g	3.5e-h
	Trinity	1.0 FL OZ/1000 FT2	21 Day					
4	BAS 50017F	0.54 FL OZ/1000 FT2	14 Day	3.8de	1.5b	4.5ef	69.0fgh	5.0a-g
5	Trinity	1.0 FL OZ/1000 FT2	14 Day	9.5cde	1.5b	21.0c-f	85.5e-h	4.3b-h
6	Insignia	0.7 OZ/1000 FT2	14 Day	0.5de	1.3b	3.0ef	156.3cde	3.8d-h
7	SP2169	0.25 LB AI/Acre	14 Day	12.5cde	2.0b	35.3abc	42.3gh	4.0c-h
8	SP2169	0.5 LB AI/Acre	14 Day	13.8b-e	2.3b	18.0c-f	11.8h	5.5a-e
9	SP2169	1.0 LB AI/Acre	14 Day	4.3cde	1.5b	12.3def	29.0gh	6.0a-d
10	DPX-LEM17-50-76	0.3 OZ/1000 FT2	14 Day	5.3cde	1.0b	7.3ef	36.0gh	6.5ab
11	DPX-LEM17-50-76	0.5 OZ/1000 FT2	14 Day	3.5de	1.3b	4.8ef	28.0gh	6.5ab
12	Emerald	0.18 OZ/1000 FT2	21 Day	1.5de	0.0b	5.8ef	13.0h	6.0a-d
13	Emerald	0.13 OZ/1000 FT2	21 Day	1.8de	1.0b	9.3ef	50.5gh	5.3a-f
14	Concert	4.5 FL OZ/1000 FT2	21 Day	6.8cde	2.3b	7.0ef	76.5fgh	4.3b-h
15	Concert	5.0 FL OZ/1000 FT2	21 Day	10.5cde	1.8b	4.0ef	66.0fgh	4.8b-g
16	Triton Flo	0.75 FL OZ/1000 FT2	21 Day	11.5cde	3.0b	22.8c-f	168.0cd	3.5e-h
17	Reserve	3.2 FL OZ/1000 FT2	21 Day	7.0cde	3.3b	26.3b-e	297.3a	2.3h
18	Interface	4.0 FL OZ/1000 FT2	21 Day	0.3e	0.3b	0.5f	20.0h	5.5a-e
19	Iprodione Pro	4.0 FL OZ/1000 FT2	21 Day	1.5de	0.8b	4.3ef	142.5def	4.3b-h
20	Tartan	1.5 FL OZ/1000 FT2	21 Day	1.8de	1.0b	9.5ef	166.8cd	3.5e-h
21	Banner MAXX	1.0 FL OZ/1000 FT2	14 Day	5.5cde	1.5b	18.5c-f	35.3gh	6.3abc
22	Eagle	1.4 FL OZ/1000 FT2	14 Day	17.3b-e	2.0b	51.0a	172.5cd	4.5b-h
23	NB36479	1 LB/Acre	14 Day	26.3a-e	3.5b	7.0ef	10.5h	6.5ab
24	NB36479	2 LB/Acre	14 Day	25.8a-e	4.8b	2.5ef	5.8h	7.3a
25	NB36691	3.2 Gal/Acre	14 Day	35.0a-e	5.5b	34.3a-d	43.0gh	5.3a-f
26	NB36691	6.4 Gal/Acre	14 Day	25.0a-e	3.8b	2.0ef	44.3gh	6.3abc
27	NB36845	4.5 LB/Acre	14 Day	23.5b-e	5.0b	12.0def	273.8ab	3.5e-h
28	NB36845	8.9 LB/Acre	14 Day	30.0a-e	9.5b	8.5ef	250ab	3.8d-h
29	NB36277	0.28 Gal/Acre	14 Day	41.0abc	3.0b	44.3ab	116.5d-g	4.5b-h
30	NB36277	0.57 Gal/Acre	14 Day	37.3a-d	4.8b	24.8b-f	24.8h	6.5ab
31	NB36278	3.3 LB/Acre	14 Day	48.0ab	6.8b	3.0ef	222.8bc	2.8gh
32	NB36278	6.6 LB/Acre	14 Day	57.8a	8.5b	13.5c-f	186.3cd	3.5e-h
33	NB36844	3.35 Gal/Acre	14 Day	28.3a-e	1.5b	1.5ef	54.3gh	4.3b-h
34	NB36844	6.7 Gal/Acre	14 Day	19.0b-e	1.8b	5.5ef	50gh	6.0a-d

*Means followed by same letter do not significantly differ (P=.05, Student-Newman-Keuls)