Preventative dollar spot control at putting green 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* 'Penncross') maintained at 0.140 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 CO_2 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 ft^2. All treatments were initiated June 3rd, and subsequent applications were made at 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-June and mid-August, which is reflected in the ratings on June 22nd and August 18th. Both rates of Honor were the only treatments to provide complete control of dollar spot on the August 18th date. All treatments with the exception of 7-10 provided a significant reduction in dollar spot compared to the untreated controls. Treatments 2-5 and 12-18 provided excellent dollar spot control on the June 22nd rating date, while only 2-5 provided excellent control on the August 18th rating. 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 2-5.

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Table 1. Mean number of dollar spots per treatment on putting green turf at the O. J. Noer Turfgrass Research and Education Center in Verona, WI in 2009.

	Treatment	Rate	Application Interval	Dollar Spot Disease Severity* (Mean number of dollar spots per treatment)				Turf Quality
				Jun 22	Jun 30	Jul 27	Aug 18	Aug 24
1	Non-treated control			249.3a	208.8a	247.8a	348.8a	2.0g
2	Emerald	0.13 OZ/1000 FT2	14 Day	2.3e	0.8e	0.5f	1.0d	7.0a
3	Insignia Trinity	0.7 OZ/1000 FT2 1.0 FL OZ/1000 FT2	14 Day	13.5e	4.3e	1.0f	11.8d	6.8a
4	Honor	0.7 OZ/1000 FT2	14 Day	8.0e	1.8e	0.3f	0.0d	7.0a
5	Honor	1.1 OZ/1000 FT2	14 Day	11.5e	7.8e	0.0f	0.0d	6.8a
6	Concert	4.0 FL OZ/1000 FT2	14 Day	86.8de	186.5ab	36.0def	94.0c	5.8b
7	Rubigan	0.5 FL OZ/1000 FT2	14 Day	144.5bcd	197.8ab	247.8ab	335.0a	2.0g
8	Rubigan	0.1.0 FL OZ/1000 FT2	14 Day	198.3ab	150.8bc	246.8ab	362.5a	2.0g
9	Rubigan GWN-9812	0.5 FL OZ/1000 FT2 1.0 Qt/Acre	14 Day	128.8cd	134.5c	203.0b	308.8a	2.3g
10	Rubigan GWN-9812	1.0 FL OZ/1000 FT2 1.0 Qt/Acre	14 Day	165.3bc	156.5bc	230.3ab	337.5a	2.0g
11	Banner MAXX	1.0 FL OZ/1000 FT2	14 Day	104.0cd	84.8d	51.8def	237.5b	3.8f
12	A6780	1.0 FL OZ/1000 FT2	21 Day	8.3e	50.0de	81.0d	222.0b	4.5def
13	A6780 A9180	1.0 FL OZ/1000 FT2 0.006 OZ/1000 FT2	21 Day	9.3e	18.0e	46.3def	82.0c	4.8cde
14	A6780 A9180	1.0 FL OZ/1000 FT2 0.0121 OZ/1000 FT2	21 Day	3.5e	10.8e	60.5de	90.0c	5.5bc
15	Tartan	1.0 FL OZ/1000 FT2	21 Day	37.8e	69.0d	135.3c	238.8b	4.0ef
16	Headway	1.5 FL OZ/1000 FT2	21 Day	17.3e	9.5e	83.8d	108.8c	5.3bcd
17	Headway A9180	1.5 FL OZ/1000 FT2 0.006 OZ/1000 FT2	21 Day	13.5e	8.8e	24.5ef	76.3c	5.8b
18	Headway A9180	1.0 FL OZ/1000 FT2 0.0121 OZ/1000 FT2	21 Day	5.0e	5.0e	67.5de	133.5c	5.3bcd

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