



Curative Fungicide Applications for Dollar Spot Management

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INTRODUCTION

To determine the efficacy of standard and experimental fungicides for the curative management of 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 in Madison, WI on a stand of creeping bentgrass (*Agrostis stolonifera* 'Penncross') maintained at a cutting height of 0.125 inches. Individual plots measured 3 ft by 10 ft and were arranged in a randomized complete block design with four replications. Treatments were applied at a nozzle pressure of 40 p.s.i. using a CO₂ pressurized boom sprayer equipped with two Teejet AI8004 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 1.5 gallons of water per 1000 ft². All treatments were initiated on July 19th once dollar spot developed throughout the experimental area and one treatment received a second application on August 10th. Disease severity (number of dollar spot foci) and turfgrass quality (1-9, 9 being excellent, 6 acceptable, and 1 bare soil) were assessed at 0, 3, and 8 days after application. Turf quality and disease severity were subjected to an analysis of variance and means were separated using Fisher's LSD (P = 0.05). Results of the disease severity and turfgrass quality ratings can be found in table 1 and 2, respectively.

RESULTS AND DISCUSSION

There was moderate dollar spot present on the initial application date of July 19th with all plots averaging approximately 62 infection foci per plot. After three days the plots were rated again, and although dollar spot severity decreased for all fungicide treatments, no statistical differences were observed. All treatments were below acceptable turf quality levels as well. After eight days statistical differences were observed among treatments with all treatments performing better than the nontreated control and all treatments of acceptable turf quality.

Table 1. Mean number of dollar spots per plot at fairway height at the OJ Noer Turfgrass Research and Education Facility in Madison, WI during 2016.

Treatment	Rate	Application Interval	Dollar Spot Severity ^a		
			Jul 19	Jul 22	Jul 27
1	Non-treated control		57.0a	69.0a	83.3a
2	Exteris	4 fl oz/1000 ft ²	75.3a	29.3a	16.3b
3	Xzemplar	0.26 fl oz/1000 ft ²	51.0a	23.8a	9.5b
4	Secure	0.5 fl oz/1000 ft ²	65.5a	33.8a	10.3b
5	Daconil Weatherstik	4 fl oz/1000 ft ²	63.3a	30.3a	17.8b
6	Secure Droplex Xtra	0.5 fl oz/1000 ft ² 24 fl oz/acre	69.5a	32.3a	12.5b
7	Xzemplar Droplex Xtra	0.26 fl oz/1000 ft ² 24 fl oz/acre	54.0a	25.3a	3.5b

^aDollar spot was visually assessed as number of dollar spot infection centers per plot. Means followed by the same letter do not significantly differ (P=.05, Fisher's LSD).

Table 2. Mean turfgrass quality per plot at the OJ Noer Turfgrass Research and Education Facility in Madison, WI during 2016.

Treatment	Rate	Application Interval	Turfgrass Quality ^a		
			Jul 19	Jul 22	Jul 27
1	Non-treated control		5.3a	5.0a	5.5b
2	Exteris	4 fl oz/1000 ft ²	5.0a	5.3a	6.3ab
3	Xzemplar	0.26 fl oz/1000 ft ²	5.3a	5.8a	6.5a
4	Secure	0.5 fl oz/1000 ft ²	5.5a	5.8a	6.5a
5	Daconil Weatherstik	4 fl oz/1000 ft ²	5.5a	5.5a	6.3ab
6	Secure Droplex Xtra	0.5 fl oz/1000 ft ² 24 fl oz/acre	5.0a	5.5a	6.5a
7	Xzemplar Droplex Xtra	0.26 fl oz/1000 ft ² 24 fl oz/acre	5.3a	5.8a	7.0a

^bTurfgrass quality was visually assessed on a 1 – 9 scale with 1 being bare dirt, 6 being acceptable, and 9 being exceptional. Means followed by the same letter do not significantly differ (P=.05, Fisher's LSD).