

# Curative Fungicide Applications for Dollar Spot Control

Paul Koch, Tom Huncosky, Sam Soper, Ben Van Ryzin, and Dr. Jim Kerns  
Department of Plant Pathology  
University of Wisconsin - Madison

## INTRODUCTION

Dollar spot, caused by the fungus *Sclerotinia homoeocarpa*, is an important disease of intensively managed cool-season turfgrass. Fungicides are necessary to provide complete control of the disease throughout the growing season, but decreasing budgets can make it impossible to spray all susceptible turfgrass preventatively. Therefore, it is important to know fungicides and fungicide combinations that provide effective curative control of dollar spot. The objective of this study was to determine the efficacy of fungicide combinations to curatively control dollar spot caused by the fungus *Sclerotinia homeocarpa*.

## MATERIALS AND METHODS

The field trials were conducted at the OJ Noer Turfgrass Research and Education Facility in Verona, WI on a 'Penncross' creeping bentgrass plot maintained at 0.140 inches. Individual plots measured 3 x 10 ft, and were arranged in a randomized complete block design with four replications. Individual treatments were applied at a nozzle pressure of 40 psi using a CO<sub>2</sub> pressurized boom sprayer equipped with two XR Teejet 8004 VS nozzles. All fungicides were shaken by hand and applied in the equivalent of 2 gallons of water per 1000 ft<sup>2</sup>. The rating of dollar spot severity was measured by counting dollar spot infection centers per each plot. A total of 10 fungicide treatments (either single or mixtures of two) were evaluated for their curative efficacy of dollar spot control. Each treatment was applied twice to the plots. The first application was applied on July 6<sup>th</sup> when there was a consistent dollar spot infection over the entire plot. The second application followed two weeks later. Number of dollar spot infection centers per plot was rated shortly before the initial curative spray, before the second curative spray 14 days later, and 14 days following the second curative spray. Turf quality was rated on a 1-9 scale with 9 excellent and 6 acceptable.

## RESULTS AND DISCUSSION

Due to cool temperatures at the end of July, dollar spot severity was reduced in all treatments over the span of the trial including the non-treated control. With the exception of Banner MAXX applied alone, all treatments significantly reduced disease severity compared to the untreated control. No significant dollar spot differences among treatments were observed aside from Banner MAXX. The addition of the contact fungicide Daconil WeatherStik to penetrant fungicides did not significantly reduce dollar spot compared to the penetrant applied alone with the exception of Banner MAXX. Though the number of spots was not significantly different amongst treatments, treatments containing Emerald (3, 4, 8) limited the size and scope of the infection to significantly increase turf quality to acceptable conditions within one month of the initial spray.



**Photos for this report**  
**Turfgrass Diagnostic Laboratory Home**

**Table 1. Mean number of dollar spot infection centers per treatment for the curative control of dollar spot at the OJ Noer Turfgrass Research Facility in 2009.**

Treatment	Rate	Application Interval	Dollar Spot Disease Severity* (Number of dollar spots per plot)			Turf Quality*	
			July 6	July 20	Aug 3	Aug 3	
1	Non-treated control		261.5a	159.3a	43.8b	2.5d	
2	Trinity	1.5 FL OZ/1000 FT2	14 Day	256.3a	34.8b	4c	3.0cd
3	Emerald	0.18 OZ/1000 FT2	14 Day	195.5ab	18.5b	6.8c	6.8a
4	Honor	1.1 OZ/1000 FT2	14 Day	200.3ab	9.8b	0.5c	6.8a
5	Banner MAXX	1.5 FL OZ/1000 FT2	14 Day	222.8ab	29.8b	84a	4.0b
6	Curalan EG	1.0 OZ/1000 FT2	14 Day	266.0a	17.3b	2.8c	3.5bc
7	Trinity	1.5 FL OZ/1000 FT2	14 Day	182b	14.5b	2.3c	3.3bc
	Daconil WeatherStik	3.5 FL OZ/1000 FT2					
8	Emerald	0.18 OZ/1000 FT2	14 Day	253.3a	10.3b	4.5c	6.5a
	Daconil WeatherStik	3.5 FL OZ/1000 FT2					
9	Banner MAXX	1.5 FL OZ/1000 FT2	14 Day	207.3ab	18.0b	1.5c	4.0b
	Daconil WeatherStik	3.5 FL OZ/1000 FT2					
10	Curalan EG	1.0 OZ/1000 FT2	14 Day	235.0ab	13.8b	8c	3.8bc
	Daconil WeatherStik	3.5 FL OZ/1000 FT2					

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