

Fungicides for the Preventative Control of Anthracnose

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OBJECTIVE

To determine the efficacy of experimental and standard fungicides for preventing anthracnose caused by the fungus *Colletotrichum cereale*.

MATERIALS AND METHODS

The study was conducted on an annual bluegrass (*Poa annua*) and creeping bentgrass (*Agrostis stolonifera* 'Penncross') putting green maintained at a mowing height of 0.140 inches at the OJ Noer Turfgrass Research and Education Facility in Verona, WI as well as a creeping bentgrass and annual bluegrass fairway maintained at 0.5 inches at Blackhawk Country Club in Madison, WI. The individual plots measured 3 X 10 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 8004 VS nozzles. All fungicides were agitated by hand and applied in the equivalent of 2 gallons of water per 1000 ft². Treatments were initiated on June 10th at the OJ Noer center and at Blackhawk CC and subsequent applications were made at 14 day intervals until the final application was made in late August. The OJ Noer plot was inoculated with *C. cereale* on July 30th according to the procedure outlined in Inguagiato et al, 2008. Visual ratings of percent anthracnose, number of dollar spot infection centers per plot, and turfgrass quality were recorded and the data was subjected to an analysis of variance to determine statistical differences between treatments.

RESULTS AND DISCUSSION

Due to unseasonably cool conditions throughout most of the summer, anthracnose was not observed at either Blackhawk CC or the OJ Noer Turfgrass Research and Education Facility. Honor provided the most effective dollar spot control. Differences in turfgrass quality was based purely on the amount of dollar spot presence.



Photos for this report
Turfgrass Diagnostic Laboratory Home

Inguatiato, J. C., Murphy, J. A., Clarke, B. B. 2008. Anthracnose severity on annual bluegrass influenced by nitrogen fertilization, growth regulators, and verticutting. Crop Sci. 48: 1595-1607.

Table 1. Mean percent anthracnose and turfgrass quality per treatment at the OJ Noer Turfgrass Research Facility in 2009.

Treatment	Rate	Application Interval	Anthracnose Disease Severity*	Dollar Spot Severity		Turf Quality	
				Aug 18	Aug 31	Aug 31	
1	Non-treated control		NA	339.5a	80a	4.0ef	
2	Insignia	0.9 OZ/1000 FT2	14 Day	NA	31.0d	25.5b-e	5.0cde
3	Trinity	1.0 FL OZ/1000 FT2	14 Day	NA	143.8cd	44.0bcd	4.8def
4	Insignia Trinity	0.7 OZ/1000 FT2 1.0 FL OZ/1000 FT2	14 Day	NA	18.3d	11.3de	6.0bc
5	Honor	1.1 OZ/1000 FT2	14 Day	NA	0.0d	0.0e	7.0a
6	SP2169	0.25 LB AI/Acre	14 Day	NA	298ab	94.0a	3.8f
7	SP2169	0.5 LB AI/Acre	14 Day	NA	131.8cd	48bc	4.8def
8	SP2169	1 LB AI/Acre	14 Day	NA	32.8d	15.0cde	5.5bcd
9	DPX-LEM17-50	0.3 OZ/1000 FT2	14 Day	NA	55.8d	32.3b-e	5.0cde
10	DPX-LEM17-50	0.5 OZ/1000 FT2	14 Day	NA	44.8d	23.3b-e	5.3bcd
11	DPX-LEM17-50 Daconil Ultrex	0.3 OZ/1000 FT2 3.25 OZ/1000 FT2	14 Day	NA	31.8d	31.8b-e	5.0cde
12	DPX-LEM17-50 Banner MAXX	0.3 OZ/1000 FT2 1.0 FL OZ/1000 FT2	14 Day	NA	13.0d	10.0de	6.3ab
13	Vitalonil	7.0 FL OZ/1000 FT2	14 Day	NA	197.5bc	52.3b	4.5def

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