Dollar Spot Suppression on Golf Course Putting Greens

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OBJECTIVE

To determine the efficacy of standard and experimental fungicides for controlling dollar spot caused by the fungus *Clarireedia jacksonii* on a creeping bentgrass putting green.

MATERIALS AND METHODS

The study was conducted at the O. J. Noer Turfgrass Research and Education Facility on a mixed stand of 'Penncross' creeping bentgrass (*Agrostis stolonifera*) and annual bluegrass (*Poa annua*) maintained at 0.125 inches. Individual plots measured 3 feet by 10 feet and were arranged in a randomized complete block design with four replications. Treatments were applied at a nozzle pressure of 40 psi using a CO_2-pressurized boom sprayer equipped with one Teejet AI9508EVS nozzle. All fungicides were agitated by hand and applied in the equivalent of 1.5 gallons of water per 1000 ft^2. Most treatments were initiated on May 22nd, 2025. Subsequent applications were made at 14-day intervals. Number of dollar spot foci per plot and turfgrass quality (1-9, 9 being excellent, 6 acceptable, and 1 bare soil) were visually assessed every 2 weeks. Turf quality and disease severity were subjected to an analysis of variance and means separated using Fisher's LSD (P = 0.05). Results of disease severity and turfgrass quality ratings can be found in Table 1 and 2, respectively. Area under the disease progress curve (AUDPC) and area under the turf quality curve (AUTQC) were calculated using the trapezoidal method and summarize the whole season disease severity and turf quality and are included in tables 1 and 2, respectively.

RESULTS AND DISCUSSION

Dollar spot pressure was very high throughout the entirety of the summer with nontreated controls averaging over 268 dollar spot infection centers per plot on the peak disease Aug 6 rating date. All 3 of the public treatments in this trial provided exceptional suppression of dollar spot under these high disease pressure conditions. Turf quality mirrored disease severity. No phytotoxicity was observed with any treatment.

Table 1. Mean number of dollar spots per treatment at greens height at the OJ Noer Turfgrass Research Facility in Madison, WI during 2025.

	Treatment	Rate	Application Interval	Application Code[b]	Dollar Spot Severity[a] July 23rd	Dollar Spot Severity Aug 6th	Dollar Spot Severity Aug 20th	Dollar Spot Severity AUDPC[c]
1	Non-treated control				89.5abc	268.8a	261.5ab	7477.8a
8	NFA 0630 401	0.75 fl oz/1000 ft²	14 day	CEGIKMO	0.3e	1.0e	0.0e	17.5d
9	NFA 08-09 NFA 08-10	0.196 fl oz/1000 ft² 0.26 fl oz/1000 ft²	14 day	CEGIKMO	0.5e	6.5de	0.0e	98.0d
10	NFA 08-10 Spirato Rotator	0.26 fl oz/1000 ft² 0.5 fl oz/1000 ft² 0.5 fl oz/1000 ft²	14 day	CEGIKMO	0.0e	0.5e	0.0e	7.0d
				LSD P= .05	48.46	79.47	94.41	2767.27

[a]Dollar spot rated as number of dollar spot infection centers. Means followed by the same letter do not significantly differ (P=.05, Fisher's LSD).
[b]Application Code C = May 22nd, E = Jun 4th, G = Jun 19th, I = Jul 2nd, K = July 16th, M = Jul 31st, O = Aug 13th
[c] Area under the disease progress curve (AUDPC) was calculated using the trapezoidal method.

Table 2. Mean turfgrass quality per treatment at greens height at the OJ Noer Turfgrass Research Facility in Madison, WI during 2025.

	Treatment	Rate	Application Interval	Application Code[b]	Turfgrass Quality[a] July 23rd	Turfgrass Quality Aug 6th	Turfgrass Quality Aug 18th	Turfgrass Quality AUTQC[c]
1	Non-treated control				5.0c	4.8cd	4.0d	346.5cd
8	NFA 0630 401	0.75 fl oz/1000 ft²	14 day	CEGIKMO	7.0a	6.5ab	7.0a	469.5a
9	NFA 08-09 NFA 08-10	0.196 fl oz/1000 ft² 0.26 fl oz/1000 ft²	14 day	CEGIKMO	7.0a	6.3b	7.0a	466.3a
10	NFA 08-10 Spirato Rotator	0.26 fl oz/1000 ft² 0.5 fl oz/1000 ft² 0.5 fl oz/1000 ft²	14 day	CEGIKMO	7.0a	7.0a	7.0a	476.0a
				LSD P= .05	0.23	0.65	0.37	14.81

[a] Turfgrass quality was rated visually on a 1 – 9 scale with 6 being acceptable. Means followed by the same letter do not significantly differ (P=.05, Fisher's LSD).
[b]Application Code C = May 22nd, E = Jun 4th, G = Jun 19th, I = Jul 2nd, K = July 16th, M = Jul 31st, O = Aug 13th
[c] Area under the turfgrass quality curve (AUTQC) was calculated using the trapezoidal method.