



Dollar Spot Suppression on Golf Course Fairways

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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 fairway.

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 0.5 inches. Individual plots measured 3 feet by 5 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 CO₂-pressurized 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 ft². All treatments were initiated on May 20, 2026, and subsequent applications were made at 7-, 14-, or 21-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 tables 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 high starting in July with nontreated controls averaging over 146 dollar spot infection centers per plot on the peak disease date of Aug 26. Despite this high pressure, 28 of the 32 public treatments provided suppression in the lowest statistical category. However, only 12 of the treatments provided an acceptable turf quality rating of 6 or higher, indicating there was large variability in dollar spot severity and significant dollar spot breakthrough under this heavy pressure. No phytotoxicity was observed with any treatment.

Table 1: Mean number of dollar spots per treatment at fairway height at the OJ Noer Turfgrass Research Facility in Madison, WI during 2026.

Ref #	Treatment	Rate	Application Interval	Application Code	Dollar Spot Severity July 15 th	Dollar Spot Severity Aug 12 th	Dollar Spot Severity Aug 26 th	Dollar Spot Severity AUDPC
1	Non-treated control	NA	NA	NA	21.3b	87.0bc	146.5ab	3158.8b
2	All-Phase	10.2 g/1000 ft ²	7 day	BCDEFGHIJ KLMNO	42.5a	121.3a	172.8a	4670.9a
3	Tartan	2.0 fl oz/1000 ft ²	21 day	BEHKN	0.0g	15.8g-m	12.5g	308.0efg
4	Exteris	4.5 fl oz/1000 ft ²	21 day	BEHKN	0.8fg	5.8klm	11.5g	174.9fg
5	Posterity XT	1.5 fl oz/1000 ft ²	21 day	BEHKN	0.3g	14.8g-m	12.3g	302.8efg
6	Xzemplar Duo	0.65 fl oz/1000 ft ²	21 day	BEHKN	0.5g	1.5m	0.8g	36.6g
7	Maxtima	0.4 fl oz/1000 ft ²	21 day	HKN	2.3d-g	23.5f-m	4.5g	451.0efg
8	Encartis	4.0 fl oz/1000 ft ²	21 day	HKN	2.8d-g	35.5e-l	20.5efg	692.8d-g
9	Xzemplar	0.26 fl oz/1000 ft ²	21 day	HKN	3.5c-g	17.0g-m	13.5g	409.5efg
10	Xzemplar Duo	0.75 fl oz/1000 ft ²	21 day	HKN	1.3efg	13.0g-m	1.8g	305.4efg
11	Chlorothalonil	5.5 fl oz/1000 ft ²	21 day	HKN	2.0d-g	32.5e-m	27.0d-g	713.6d-g
12	Viora	1.4 fl oz/1000 ft ²	14 day	BDFHJLN	0.0g	4.3klm	2.8g	85.8g
13	NB41583	1.4 fl oz/1000 ft ²	21 day	BEHKN	1.3efg	10.5h-m	11.3g	243.3fg
14	Navicon	0.7 fl oz/1000 ft ²	14 day	BDFHJLN	1.0fg	3.0lm	5.3g	103.0g
15	Briskway	0.5 fl oz/1000 ft ²	14 day	BDFHJLN	9.8b-g	58.5cde	114.5b	1980.4c
16	Primo Maxx Viora EF-718 Secure Tekken	0.125 fl oz/1000 ft ² 1.4 fl oz/1000 ft ² 1.47 fl oz/1000 ft ² 0.5 fl oz/1000 ft ² 3.0 fl oz/1000 ft ²	14 day	BDFHJLN BJN B DHL F	4.0c-g	9.5h-m	8.0g	259.0fg
17	Tekken	3.0 fl oz/1000 ft ²	21 day	BEHKN	0.3g	5.3klm	1.8g	89.3g
18	CHG (0-0-2) Secure	10.0 oz/1000 ft ² 0.5 fl oz/1000 ft ²	21 day	BEHKN	14.3bcd	43.0d-h	15.8fg	1057.9c-g
19	CHG-2KP-5AG Secure	10.0 oz/1000 ft ² 0.5 fl oz/1000 ft ²	21 day	BEHKN	15.3bc	46.0d-g	29.3c-g	1156.6c-f
20	Carve Xtra	0.52 fl oz/1000 ft ²	14 day	DFHJLN	3.5c-g	7.8i-m	10.0g	234.5fg
21	SA-0650200	0.78 fl oz/1000 ft ²	14 day	DFHJLN	0.8fg	4.8klm	4.0g	128.8fg
22	SA-0650200	0.78 fl oz/1000 ft ²	21 day	CEHKN	5.5c-g	19.8g-m	15.3fg	477.6efg
23	SA-0650200	0.47 fl oz/1000 ft ²	14 day	DFHJLN	13.5b-e	23.5f-m	18.8efg	778.6d-g
24	SA-0650200	0.585 fl oz/1000 ft ²	14 day	DFHJLN	0.3g	3.3lm	4.8g	82.3g
25	Densicor	0.195 fl oz/1000 ft ²	14 day	BDFHJLN	0.5g	7.5j-m	7.3g	162.8fg
26	Prothioconazole 4SC	8.5 fl oz/A	14 day	BDFHJLN	2.3d-g	5.3klm	5.3g	145.1fg
27	Fluazinam	21.5 fl oz/A	14 day	BDFHJLN	6.5c-g	29.0e-m	31.8c-g	777.8d-g
28	ALB-F1-01	21.5 fl oz/A	14 day	DFHJLN	11.3b-g	60.8cde	61.8c	1730.8cd

Ref #	Treatment	Rate	Application Interval	Application Code	Dollar Spot Severity July 15 th	Dollar Spot Severity Aug 12 th	Dollar Spot Severity Aug 26 th	Dollar Spot Severity AUDPC
29	ALB-P1-01	8.5 fl oz/A	14 day	DFHJLN	0.8fg	9.5h-m	14.5fg	272.4fg
30	NFA080010 NFA0800034 NFA0800033	0.26 fl oz/1000 ft ² 0.7 fl oz/1000 ft ² 0.36 g/1000 ft ²	21 day	BEHKN	0.0g	6.0klm	9.0g	164.1fg
31	NF0630401	0.75 fl oz/1000 ft ²	21 day	BEHKN	0.8fg	5.3klm	3.3g	110.1g
32	Lexicon	0.47 fl oz/1000 ft ²	21 day	BEHKN	0.0g	12.5g-m	2.5g	192.5fg
NA	NA	NA	NA	LSD P=.05	12.29	33.52	34.04	1042.885

Table Notes by Column Name

Dollar Spot Severity - Dollar spot rated as number of dollar spot infection centers per plot.

Means followed by the same letter do not significantly differ (P=.05, Fisher's LSD).

Application Code - B=May 20th, C=May 26th, D=June 2nd, E=June 9th, F=June 16th, G=June 23rd, H=June 29th, I=July 7th, J=July 14th, K=July 22nd, L=July 28th, M=August 5th, N=August 10th, O=August 18th

AUDPC - Area under the disease progress curve (AUDPC) was calculated using the trapezoidal method.

Table 2: Mean turfgrass quality per treatment at fairway height at the OJ Noer Turfgrass Research Facility in Madison, WI during 2026.

Ref #	Treatment	Rate	Application Interval	Application Code	Turfgrass Quality July 15 th	Turfgrass Quality Aug 12 th	Turfgrass Quality Aug 6 th	Turfgrass Quality AUTQC
1	Non-treated control	NA	NA	NA	5.3fg	4.5ij	4.0i	392.0jk
2	All-Phase	10.2 g/1000 ft ²	7 day	BCDEFGHI JKLMNOP	5.0g	4.2j	4.0i	376.3k
3	Tartan	2.0 fl oz/1000 ft ²	21 day	BEHKN	7.0a	6.2b-e	5.3fgh	481.3abc
4	Exteris	4.5 fl oz/1000 ft ²	21 day	BEHKN	6.8ab	6.0c-f	5.3fgh	479.5a-d
5	Posterity XT	1.5 fl oz/1000 ft ²	21 day	BEHKN	6.8ab	5.5e-h	5.8def	472.5a-e
6	Xzemplar Duo	0.65 fl oz/1000 ft ²	21 day	BEHKN	7.0a	7.0ab	7.0a	490.0a
7	Maxtima	0.4 fl oz/1000 ft ²	21 day	HKN	6.8ab	5.5e-h	6.3bcd	451.5d-h
8	Encartis	4.0 fl oz/1000 ft ²	21 day	HKN	6.8ab	5.2f-i	5.3fgh	453.3c-h
9	Xzemplar	0.26 fl oz/1000 ft ²	21 day	HKN	6.5abc	6.0c-f	5.8def	462.0a-g
10	Xzemplar Duo	0.75 fl oz/1000 ft ²	21 day	HKN	6.8ab	6.5bcd	6.8ab	451.5d-h
11	Chlorothalonil	5.5 fl oz/1000 ft ²	21 day	HKN	6.5abc	5.2f-i	5.0gh	442.8f-i
12	Viora	1.4 fl oz/1000 ft ²	14 day	BDFHJLN	6.8ab	6.7abc	6.5abc	477.8a-d
13	NB41583	1.4 fl oz/1000 ft ²	21 day	BEHKN	6.8ab	5.7d-g	5.5efg	477.8a-d
14	Navicon	0.7 fl oz/1000 ft ²	14 day	BDFHJLN	7.0a	6.5a-d	6.0cde	483.0ab

Ref #	Treatment	Rate	Application Interval	Application Code	Turfgrass Quality July 15 th	Turfgrass Quality Aug 12 th	Turfgrass Quality Aug 6 th	Turfgrass Quality AUTQC
15	Briskway	0.5 fl oz/1000 ft ²	14 day	BDFHJLN	5.8def	5.0g-j	4.0i	420.0ij
16	Primo Maxx Viora EF-718 Secure Tekken	0.125 fl oz/1000 ft ² 1.4 fl oz/1000 ft ² 1.47 fl oz/1000 ft ² 0.5 fl oz/1000 ft ² 3.0 fl oz/1000 ft ²	14 day	BDFHJLN BJN B DHL F	6.0cde	6.0c-f	5.5efg	462.0a-g
17	Tekken	3.0 fl oz/1000 ft ²	21 day	BEHKN	7.0a	6.5a-d	6.5abc	486.5ab
18	CHG (0-0-2) Secure	10.0 oz/1000 ft ² 0.5 fl oz/1000 ft ²	21 day	BEHKN	5.5efg	5.0g-j	5.0gh	434.0ghi
19	CHG-2KP-5AG Secure	10.0 oz/1000 ft ² 0.5 fl oz/1000 ft ²	21 day	BEHKN	5.8def	5.2f-i	5.0gh	439.3ghi
20	Carva Xtra	0.52 fl oz/1000 ft ²	14 day	DFHJLN	6.5abc	6.5bcd	6.0cde	472.5a-e
21	SA-0650200	0.78 fl oz/1000 ft ²	14 day	DFHJLN	7.0a	6.5bcd	6.3bcd	486.5ab
22	SA-0650200	0.78 fl oz/1000 ft ²	21 day	CEHKN	6.5abc	5.7d-g	5.5efg	460.3b-h
23	SA-0650200	0.47 fl oz/1000 ft ²	14 day	DFHJLN	6.0cde	5.5e-h	5.0gh	448.0e-i
24	SA-0650200	0.585 fl oz/1000 ft ²	14 day	DFHJLN	7.0a	6.2b-e	6.0cde	484.8ab
25	Densicor	0.195 fl oz/1000 ft ²	14 day	BDFHJLN	6.8ab	6.5a-d	5.5efg	479.5a-d
26	Prothioconazole 4SC	8.5 fl oz/A	14 day	BDFHJLN	6.8ab	6.2b-e	6.3bcd	477.8a-d
27	Fluazinam	21.5 fl oz/A	14 day	BDFHJLN	6.3bcd	5.5e-h	5.3fgh	451.5d-h
28	ALB-F1-01	21.5 fl oz/A	14 day	DFHJLN	6.5abc	5.0g-j	4.8h	441.0f-i
29	ALB-P1-01	8.5 fl oz/A	14 day	DFHJLN	6.8ab	6.0c-f	5.3fgh	469.0a-f
30	NFA080010 NFA0800034 NFA0800033	0.26 fl oz/1000 ft ² 0.7 fl oz/1000 ft ² 0.36 g/1000 ft ²	21 day	BEHKN	7.0a	6.5a-d	5.8def	486.5ab
31	NF0630401	0.75 fl oz/1000 ft ²	21 day	BEHKN	7.0a	6.0c-f	6.3bcd	392.0jk
32	Lexicon	0.47 fl oz/1000 ft ²	21 day	BEHKN	7.0a	5.2f-i	6.3bcd	376.3k
NA	NA	NA	NA	LSD P=.05	0.68	0.93	0.72	29.34

Table Notes by Column Name

Dollar Spot Severity - Dollar spot rated as number of dollar spot infection centers per plot.

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