

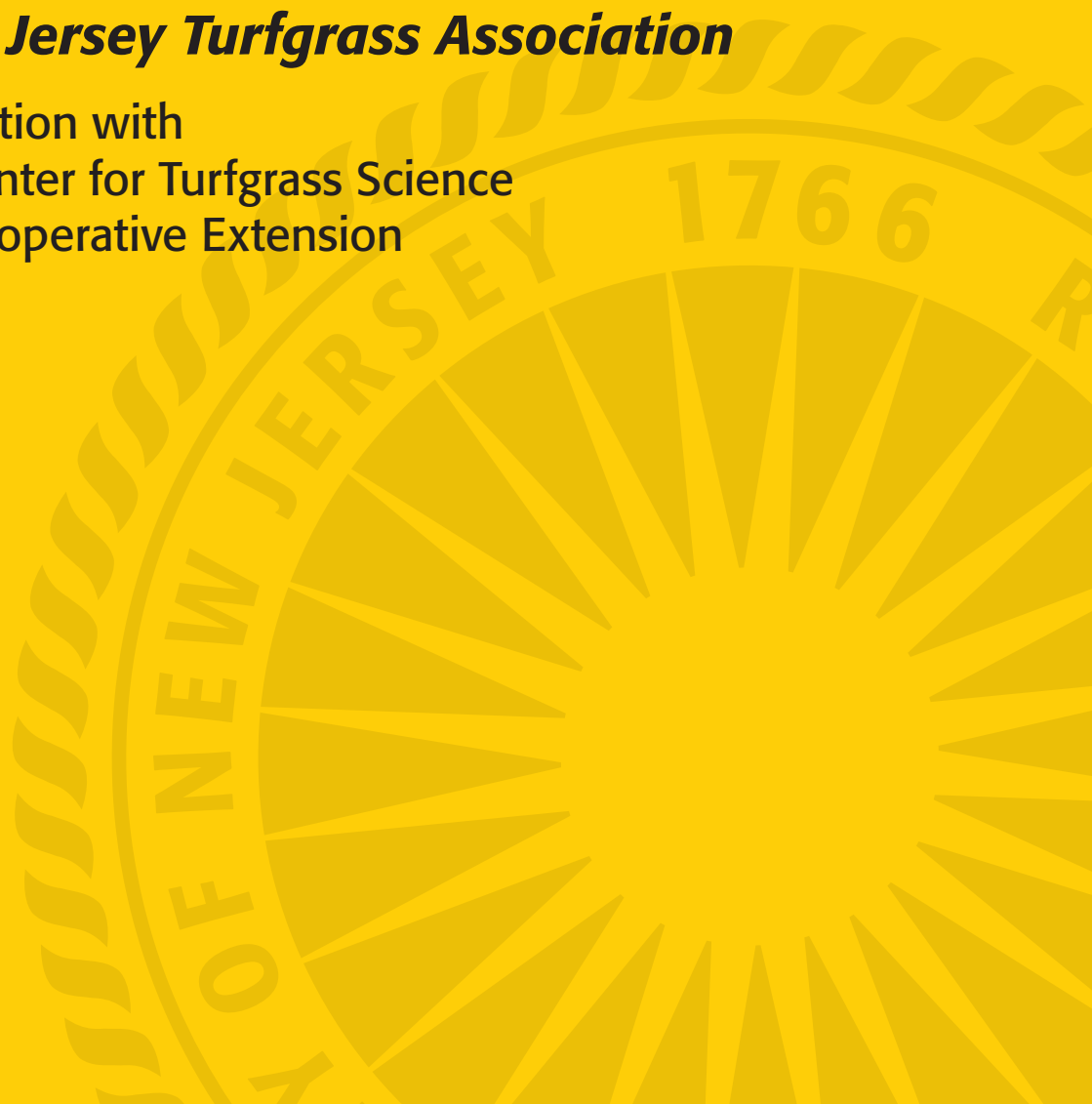
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The Rutgers Turfgrass Proceedings is published yearly by the Rutgers Center for Turfgrass Science, Rutgers Cooperative Extension, and the New Jersey Agricultural Experiment Station, School of Environmental and Biological Sciences, Rutgers, The State University of New Jersey in cooperation with the New Jersey Turfgrass Association. The purpose of this document is to provide a forum for the dissemination of information and the exchange of ideas and knowledge. The proceedings provide turfgrass managers, research scientists, extension specialists, and industry personnel with opportunities to communicate with co-workers. Through this forum, these professionals also reach a more general audience, which includes the public.

This publication includes lecture notes of papers presented at the 2013 GREEN EXPO Turf and Landscape Conference. Publication of these lectures provides a readily available source of information

covering a wide range of topics and includes technical and popular presentations of importance to the turfgrass industry.

This proceedings also includes research papers that contain original research findings and reviews of selected subjects in turfgrass science. These papers are presented primarily to facilitate the timely dissemination of original turfgrass research for use by the turfgrass industry.

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Dr. Ann Brooks Gould, Editor
Dr. Bruce B. Clarke, Coordinator

CONTROL OF DOLLAR SPOT ON A CREEPING BENTGRASS GREEN WITH FUNGICIDES AND BIORATIONAL PRODUCTS, 2013

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Fungicides were evaluated in 2013 for their ability to control dollar spot (caused by *Sclerotinia homoeocarpa*) at the Rutgers Turf Research Farm in North Brunswick, NJ on creeping bentgrass (*Agrostis stolonifera*) maintained under golf course greens conditions. Turf was established September 2010 on a Nixon loam with a pH of 6.2. Mowing was performed daily at a height of 0.125 inches with clippings collected. The site was irrigated as needed to prevent drought stress. Plots were 3 x 5 ft and were arranged in a randomized complete block with four replications.

Fertilizer was applied as 46-0-0 (0.4 lb nitrogen (N) per 1000 ft²) on 26 March, 46-0-0 (0.1 lb N per 1000 ft²) on 22 April, 6 and 20 May, 4 and 17 June, 2, 15, and 27 July, and 2 and 26 August, and 20-20-20 (0.1 lb N per 1000 ft²) on 6 May. Phosphorus (P) was applied as 0-30-0 (0.05 lb P per 1000 ft²) on 26 March, 4 Jun, 2 and 27 July, and 26 August. Potassium (K) was sprayed as 0-0-62 (0.1 lb K per 1000 ft²) on 6 April, 15 and 17 June, 15 July, and 12 and 26 August. Micronutrients were sprayed as Micro Green (micronutrient solution containing 5% iron, 0.5% manganese, 0.5% copper, 0.5% zinc, and 2% sulfur; 4.0 fl oz per 1000 ft²) on 21 March, 12 April, and 20 May. Calcium (Ca) was applied as Sugar Cal (10% Ca solution; 4.0 fl oz per 1000 ft²) on 27 April, 30 May, 29 June, 26 July, and 20 August, and magnesium (Mg) (4% solution; 4.0 fl oz per 1000 ft²) was sprayed on 21 March, 22 April, 20 May, 17 June, 12 July, and 12 August. QuickSilver 1.9L was applied on 27 April and 14 May (0.154 fl oz per 1000 ft²) and 15 June, 4 and 15 July, and 5 August (0.046 fl oz per 1000 ft²) for silvery thread moss (*Bryum argenteum*)

control. Heritage TL 0.8ME (2.0 fl oz per 1000 ft²) was applied on 5 July and 12 August to suppress brown patch (caused by *Rhizoctonia solani*). Localized dry spots were suppressed with the wetting agent Tricure 100LC (4.0 fl oz per 1000 ft²) on 4 May, 14 June, and 18 July. Insect pests were controlled with Acelepryn 1.67SC (3.0 fl oz per A) on 16 June and Merit 75WP (0.16 oz per 1000 ft²) on 5 July. Turf was topdressed with sand (0.7 ft³ per 1000 ft²) on 19 April, 10 May, 17 June, 12 July, and 19 and 24 August.

Fungicides were applied in water equivalent to 1.9 gal per 1000 ft² with a CO₂ powered sprayer at 30 psi using 85025 air induction nozzles. Treatments (trt) were initiated on 28 May when environmental conditions were conducive to dollar spot development. Fungicides were reapplied at the appropriate intervals as indicated in Tables 1A, 1B, 1C, and 1D. Turf was visually evaluated for number of dollar spot infection centers per plot on 13 and 23 June, 3, 13, and 23 July, 2, 12, and 22 August, and 1 September. Turf quality was rated on 25 June, 23 July, and 20 August using a 1 to 9 scale, where 9 = best turf quality and 5 = acceptable quality. Phytotoxicity was assessed on 25 June, 23 July, and 20 August using a 1 to 5 scale, where 1 = no foliar discoloration, 2 = slight chlorosis or necrosis, 3 = moderate chlorosis or necrosis, 4 = severe chlorosis or necrosis, and 5 = all turf dead. Color of foliage was visually estimated on 25 June, 23 July, and 20 August using a 1 to 10 scale, where 5 = color of healthy untreated turf, less than 5 = progressively more chlorotic or necrotic turf, and greater than 5 = progressively darker green turf. Brown patch was evaluated as the percent turf area infected with *R. solani* on 7 July. Data were subjected

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to analysis of variance and means were separated using the Waller-Duncan *k*-ratio *t*-test (*k* = 100).

Dollar spot was first observed on 3 June and became uniform throughout the study by 13 June (Table 1A). The disease progressed gradually throughout August, peaking on 1 September at 202 lesion centers per plot on untreated turf (Table 1B). This was considered a high level of dollar spot infestation and thus a stringent test of a product's ability to control this disease on a creeping bentgrass green. Less than 10 infection centers per plot represented an acceptable level of disease control for this study.

Season-long control of dollar spot (28 May to 1 September; 19 to 40 days after the last application, Tables 1A and 1B) was afforded by 19% of the treatments; these included RU-21196-13A SC every 14 days (trts 1, 2), RU-21196-13B SC @ 5.33 fl oz every 14 days (trt 3), 2013 Bayer Dollar Spot Greens Programs #1 (trt 9) and #2 (trt 10), RU-2125-123H SC every 7 days (trt 11), Interface 2.27SC (trt 23), Honor Intrinsic 28WG (trt 24), Insignia Intrinsic 2.1SC (trt 26), 2013 Sipcam Dollar Spot Greens Prog #3 (trt 32), Emerald 70WG @ 0.13 oz every 14 days (trt 38), RU-229225-13A LC @ 1.0 fl oz + RU-229225-13B LC @ 1.28 fl oz (trt 43), Encartis 6.24SC (trts 60, 61), Secure 4.17SC + Insignia Intrinsic 2.1SC every 14 days (trt 75), 2013 Dollar Spot Greens Prog #15 (trt 76), and Emerald 70WG @ 0.18 oz every 21 days (trt 84).

Other fungicide entries (44% of all treatments) provided good to excellent control of dollar spot throughout the application period (28 May to 20 August; see evaluation date 22 August, Table 1B); these included RU-21196-13A SC every 21 days (trt 4), RU-21196-13B SC every 21 days (trt 5), RU-21196-13C SC (trts 6, 7), RU-2125-123H SC every 14, 21, or 28 days (trts 12 to 16), RU-2125-123I SC every 7, 14, or 21 days (trts 18 to 20), SA-0290101 F (trt 27), SA-0290102 F (trt 28), Echo Dyad ETQ 6F (trt 29), SA-0010233 F (trt 30), SA-0010235 F (trt 33), Daconil Action 6.1SC (trt 37), Chipco Signature 80WG + Daconil Ultrex 82.5WDG (trt 39), RU-229225-13A LC 0.25 fl oz + RU-229225-13B LC 1.28 fl oz (trt 41), RU-229225-13A LC 0.5 fl oz + RU-229225-13B LC 1.28 fl oz (trt 42), QP Enclave 5.3F + Foursome 100SL (trts 48, 49), QP Enclave 5.3F + QP Fosetyl-Al 80WDG + Foursome 100SL (trts 50, 51), Xzemplar

2.5SC every 21 days (trt 62), Emerald 70WG @ 0.18 oz every 28 days (trt 64), 2013 BASF Dollar Spot Greens Programs #7 to 9 (trts 65 to 67), Tourney 50WG + S2200 4SC (trt 69), 2013 NuFarm Dollar Spot Greens Programs #11 to 13 (trts 70 to 72), Daconil Ultrex 82.5WDG + Insignia Intrinsic 2.1SC (trts 73, 77), 2013 Dollar Spot Greens Programs #14, 16 to 19 (trts 74, 78, 79, 81, 82), Secure 4.17SC + Insignia Intrinsic 2.1SC every 21 days (trt 80), Chipco 26GT 2SC (trt 86), Secure 4.17SC (trt 88), Banner Maxx 1.3ME (trt 89), and RU-21196-13B SC @ 2.66 fl oz every 14 days (trt 97).

Several treatments resulted in visually darker green foliage (greater or equal to a color rating of 5) on at least 50% of the evaluation dates [i.e., 2013 Bayer Dollar Spot Greens Prog #2 (trt 10), RU-2125-123H SC 28 days (trt 16), RU-2125-123I SC every 28 days (trt 21), SA-0010236 F (trt 25), Echo Dyad ETQ 6F (trt 29), SA-0010233 F (trt 30), 2013 Sipcam Dollar Spot Greens Prog #3 (trt 32), SA-0010235 F (trt 33), QP Enclave 5.3F + Foursome 100SL every 14 days (trts 48), QP Enclave 5.3F + QP Fosetyl-Al 80WDG + Foursome 100SL every 14 days (trt 50), K-1 LC @ 2.0 fl oz + Banner Maxx 1.3ME @ 1.0 fl oz (trt 58), 2013 NuFarm Dollar Spot Greens Programs #12 and 13 (trt 71, 72), and 2013 Dollar Spot Greens Programs #14 to 19 (trts 74, 76, 78, 79, 81, 82)], presumably because they either contain a pigment, a plant growth regulator, and/or a fertilizer (Table 1C).

Turf quality was acceptable (greater or equal to 5.0) for most entries in this study. In general, turf treated with products that provided poor dollar spot control exhibited unacceptable turf quality on at least half of the evaluation dates [e.g., 2013 Dollar Spot Greens Programs #5 and 6 (trts 46 and 47), Regalia 5LC (trt 52), RU 13118-13A LC (trts 53, 54), and RU 13118-13B LC + RU 13118-13A LC (trt 55)] (Table 1C). Very little phytotoxicity was observed for any of the treatments in this study. Only K-1 LC @ 2.0 fl oz + Banner Maxx 1.3ME @ 0.75 fl oz every 21 days (trt 59) exhibited slight foliar necrosis (up to 1.6 on a 1 to 5 scale) on more than half of the observation dates (Table 1D). Brown patch was observed in the study on 7 July. The majority of the entries (65%) provided acceptable control of this disease (Table 1D).

Table 1A. Influence of fungicides and biorational products on dollar spot development of a creeping bentgrass green, Test 1: Rutgers University, 2013.

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹				
			13 June	23 June	3 July	13 July	23 July
1 RU-21196-13A SC	2.0 fl oz	14	0.0 p	0.3 s	0.0 m	0.0 v	0.8 o-q
2 RU-21196-13A SC	4.0 fl oz	14	0.0 p	0.0 s	0.0 m	0.0 v	0.0 q
3 RU-21196-13B SC	5.33 fl oz	14	0.8 m-p	3.0 m-s	3.0 i-m	1.3 r-v	0.0 q
4 RU-21196-13A SC	2.0 fl oz	21	0.3 op	0.5 rs	0.0 m	0.0 v	0.0 q
5 RU-21196-13B SC	2.66 fl oz	21	2.5 i-p	2.5 m-s	0.0 m	0.5 uv	1.3 m-q
6 RU-21196-13C SC	1.0 fl oz	14	3.5 g-o	4.8 i-s	6.3 g-j	6.3 j-q	3.3 f-q
7 RU-21196-13C SC	2.0 fl oz	14	3.0 h-p	2.8 m-s	3.8 i-m	2.8 n-v	2.0 k-q
8 RU-21196-13C SC	1.0 fl oz	21	8.0 c-f	9.3 g-j	5.0 h-l	14.0 gh	10.0 e
9 2013 Dollar Spot Greens Prog #1	Bayer	14 ³	2.0 i-p	6.3 h-o	2.3 i-m	4.0 k-v	2.5 i-q
10 2013 Dollar Spot Greens Prog #2	Bayer	14 ⁴	1.3 l-p	1.8 m-s	1.0 k-m	3.3 m-v	0.8 o-q
11 RU-2125-123H SC	1.65 fl oz	7	0.3 op	0.5 rs	0.0 m	0.5 uv	0.0 q
12 RU-2125-123H SC	1.65 fl oz	14	2.0 i-p	2.3 m-s	1.5 j-m	2.5 o-v	1.5 l-q
13 RU-2125-123H SC	3.3 fl oz	14	1.0 m-p	0.3 s	1.8 j-m	2.3 p-v	0.5 o-q
14 RU-2125-123H SC	4.36 fl oz	21	0.0 p	0.0 s	0.5 lm	0.3 uv	0.0 q
15 RU-2125-123H SC	4.36 fl oz	CUR-21 ⁵	12.0 b	1.5 n-s	0.8 k-m	2.0 p-v	0.0 q
16 RU-2125-123H SC	6.6 fl oz	28	0.8 m-p	2.0 m-s	0.0 m	1.3 r-v	0.5 o-q
17 RU-2125-123H SC	13.2 fl oz	Once ⁶	0.0 p	1.3 o-s	5.0 h-l	7.3 i-o	8.0 e-g
18 RU-2125-123I SC	1.65 fl oz	7	0.5 n-p	0.0 s	1.3 k-m	0.5 uv	1.0 n-q
19 RU-2125-123I SC	3.3 fl oz	14	1.8 j-p	1.5 n-s	0.8 k-m	2.5 o-v	1.5 l-q
20 RU-2125-123I SC	4.33 fl oz	21	0.5 n-p	0.0 s	0.8 k-m	0.0 v	0.0 q
21 RU-2125-123I SC	6.6 fl oz	28	0.0 p	4.3 j-s	2.3 i-m	3.3 m-v	1.8 l-q
22 RU-2125-123I SC	13.13 fl oz	Once ⁶	0.0 p	0.8 q-s	4.8 h-m	6.5 i-p	4.5 f-q
23 Interface 2.27SC	4.0 fl oz	14	0.0 p	0.3 s	0.0 m	1.8 p-v	1.5 l-q
24 Honor Intrinsic 28WG	0.84 oz	14	0.5 n-p	0.0 s	0.5 lm	0.0 v	1.0 n-q
25 SA-0010236 F	10.0 fl oz	14	6.8 d-g	5.8 h-q	3.8 i-m	7.5 i-n	5.3 e-p
26 Insignia Intrinsic 2.1SC	0.7 fl oz	14	1.0 m-p	0.8 q-s	2.0 i-m	0.8 t-v	1.8 l-q
27 SA-0290101 F	0.5 fl oz	14	0.8 m-p	0.3 s	1.0 k-m	0.5 uv	0.0 q
28 SA-0290102 F	0.52 fl oz	14	4.0 g-m	0.0 s	2.3 i-m	1.8 p-v	1.5 l-q
29 Echo Dyad ETQ 6F	5.0 fl oz	14	3.8 g-n	3.8 l-s	1.0 k-m	3.5 l-v	2.5 i-q

(Continued)

Table 1A. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹				
			13 June	23 June	3 July	13 July	23 July
30 SA-0010233 F.....	5.0 fl oz	14	2.8 h-p	2.5 m-s	2.8 i-m	5.0 j-u	3.8 f-q
31 Echo 720 6F.....	3.6 fl oz	14	1.8 j-p	1.5 n-s	1.3 k-m	4.3 j-v	3.5 f-q
32 2013 Dollar Spot Greens Prog #3..... Sipcam		14 ⁷	0.5 n-p	0.3 s	0.0 m	0.0 v	0.5 o-q
33 SA-0010235 F.....	7.0 fl oz	14	1.0 m-p	1.0 p-s	1.5 j-m	2.5 o-v	2.3 j-q
34 HM0736 3.51LC.....	0.321 fl oz	14	3.5 g-o	8.3 g-l	10.5 e-g	26.8 de	21.5 c
35 Echo 6.1SC.....	3.5 fl oz	14	2.8 h-p	6.8 h-m	3.3 i-m	8.3 i-l	6.0 e-n
36 HM0736 3.51LC.....	0.321 fl oz	-					
+ Echo 6.1SC.....	3.5 fl oz	14	2.5 i-p	2.0 m-s	1.3 k-m	6.5 i-p	4.0 f-q
37 Daconil Action 6.1SC.....	3.5 fl oz	14	1.5 k-p	0.5 rs	0.5 lm	1.0 s-v	1.8 l-q
38 Emerald 70WG.....	0.13 oz	14	3.8 g-n	1.8 m-s	1.8 j-m	1.5 q-v	1.0 n-q
39 Chipco Signature 80WG.....	4.0 oz	-					
+ Daconil Ultrex 82.5WDG.....	3.2 oz	14	3.0 h-p	2.8 m-s	1.0 k-m	4.3 j-v	2.3 j-q
40 Spectro 90WG.....	5.75 oz	14	0.5 n-p	2.8 m-s	3.0 i-m	4.5 j-v	5.5 e-o
41 RU-229225-13A LC.....	0.25 fl oz	-					
+ RU-229225-13B LC.....	1.28 fl oz	14	0.8 m-p	0.0 s	2.3 i-m	3.5 l-v	1.3 m-q
42 RU-229225-13A LC.....	0.5 fl oz	-					
+ RU-229225-13B LC.....	1.28 fl oz	14	0.0 p	0.5 rs	1.3 k-m	1.0 s-v	0.0 q
43 RU-229225-13A LC.....	1.0 fl oz	-					
+ RU-229225-13B LC.....	1.28 fl oz	14	0.0 p	0.0 s	0.5 lm	0.5 uv	0.0 q
44 BW136N 513G.....	64.0 oz	May 28, July 23					
/ BW136N 513WP.....	2.5 oz	June 25 ^{8,9}	8.3 c-e	12.8 e-g	6.8 f-i	8.0 i-m	7.5 e-i
45 2013 Dollar Spot Greens Prog #4.....	-	14 ^{8,10}	9.5 b-d	15.0 ef	17.3 cd	22.3 ef	22.5 c
46 2013 Dollar Spot Greens Prog #5.....	-	14 ^{8,11}	6.0 e-g	16.5 de	14.5 de	26.3 de	21.3 c
47 2013 Dollar Spot Greens Prog #6.....	-	14 ^{8,12}	11.3 bc	20.8 cd	19.5 bc	32.3 bc	31.8 b
48 QP Enclave 5.3F.....	3.0 fl oz	-					
+ Foursome 100SL.....	0.4 fl oz	14	1.0 m-p	4.0 k-s	1.8 j-m	3.0 n-v	1.3 m-q
49 QP Enclave 5.3F.....	4.0 fl oz	-					
+ Foursome 100SL.....	0.4 fl oz	21	0.3 op	0.3 s	1.3 k-m	1.8 p-v	1.5 l-q

(Continued)

Table 1A. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹							
			13 June	23 June	3 July	13 July	23 July			
50	QP Enclave 5.3F.....	3.0 fl oz	-	-	-	-	-	-	-	-
	+ QP Foseyl-AI 80WDG	4.0 oz	-	-	-	-	-	-	-	-
	+ Foursome 100SL	0.4 fl oz	14	6.0 h-p	4.8 h-m	9.0 ij	2.0 k-q			
51	QP Enclave 5.3F.....	4.0 fl oz	-	-	-	-	-	-	-	-
	+ QP Foseyl-AI 80WDG	4.0 oz	-	-	-	-	-	-	-	-
	+ Foursome 100SL	0.4 fl oz	21	0.3 s	1.0 k-m	2.5 o-v	2.3 j-q			
52	Regalia 5LC	2.0 fl oz	7	5.0 e-j	14.0 de	19.5 f	15.5 d			
53	RU 13118-13ALC.....	4.0 oz	7	11.0 bc	22.5 b	35.3 ab	29.0 b			
54	RU 13118-13ALC.....	8.0 oz	7	4.8 f-k	9.0 f-h	18.0 fg	15.5 d			
55	RU 13118-13B LC.....	2.0 fl oz	-	-	-	-	-	-	-	-
	+ RU 13118-13A LC	4.0 oz	7	4.8 f-k	11.5 ef	28.3 cd	20.8 c			
56	K-1 LC.....	1.0 fl oz	-	-	-	-	-	-	-	-
	+ Daconil Ultrex 82.5WDG.....	3.25 oz	14	1.8 j-p	1.8 j-m	1.5 q-v	0.0 q			
57	K-1 LC.....	1.0 fl oz	-	-	-	-	-	-	-	-
	+ Daconil Ultrex 82.5WDG.....	2.5 oz	14	5.0 e-j	3.0 i-m	4.0 k-v	6.3 e-m			
58	K-1 LC.....	2.0 fl oz	-	-	-	-	-	-	-	-
	+ Banner Maxx 1.3ME	1.0 fl oz	21	3.5 g-o	1.3 k-m	6.3 j-p	5.0 e-q			
59	K-1 LC.....	2.0 fl oz	-	-	-	-	-	-	-	-
	+ Banner Maxx 1.3ME	0.75 fl oz	21	5.3 e-i	5.3 h-l	8.0 i-m	6.3 f-q			
60	Encartis 6.24SC	3.0 fl oz	14	1.0 m-p	0.5 lm	1.0 s-v	0.0 q			
61	Encartis 6.24SC	4.0 fl oz	21	1.3 i-p	0.5 lm	1.3 r-v	0.0 q			
62	Xzemplar 2.5SC	0.21 fl oz	21	0.8 m-p	0.0 s	0.5 uv	0.5 o-q			
63	Xzemplar 2.5SC	0.26 fl oz	28	0.0 p	2.3 m-s	1.8 p-v	0.8 o-q			
64	Emerald 70WG	0.18 oz	28	1.3 i-p	3.0 m-s	0.5 uv	0.5 o-q			
65	2013 Dollar Spot Greens Prog #7.....	BASF	14 ¹³	0.0 p	0.0 s	4.3 j-v	4.0 f-q			
66	2013 Dollar Spot Greens Prog #8.....	BASF	14 ¹⁴	0.5 n-p	3.5 i-s	3.8 k-v	3.3 f-q			
67	2013 Dollar Spot Greens Prog #9.....	BASF	14 ¹⁵	2.0 i-p	3.3 i-s	3.5 l-v	5.0 e-q			
68	2013 Dollar Spot Greens Prog #10.....	BASF	14 ¹⁶	4.0 g-m	10.8 f-h	11.3 hi	7.8 e-h			
69	Tourney 50WG	0.28 oz	-	-	-	-	-	-	-	-
	+ S2200 4SC	0.25 fl oz	21	1.8 j-p	1.5 j-m	4.3 j-v	2.8 h-q			

(Continued)

Table 1A. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹				
			13 June	23 June	3 July	13 July	23 July
70 2013 Dollar Spot Greens Prog #11 ... Nufarm		14 ¹⁷	2.3 i-p	4.8 i-s	2.0 i-m	5.0 j-u	1.8 l-q
71 2013 Dollar Spot Greens Prog #12 ... Nufarm		14 ¹⁸	1.5 k-p	5.8 h-q	3.5 i-m	8.5 i-k	3.0 g-q
72 2013 Dollar Spot Greens Prog #13 ... Nufarm		14 ¹⁹	0.0 p	1.5 n-s	2.3 i-m	4.0 k-v	0.8 o-q
73 Daconil Ultrex 82.5WDG	1.8 oz	-					
+ Insignia Intrinsic 2.1SC	0.7 fl oz	14	2.0 i-p	1.3 o-s	1.0 k-m	1.5 q-v	1.8 l-q
74 2013 Dollar Spot Greens Prog #14		14 ²⁰	0.0 p	0.0 s	0.5 lm	0.0 v	0.0 q
75 Secure 4.17SC	0.5 fl oz	-					
+ Insignia Intrinsic 2.1SC	0.7 fl oz	14	0.0 p	0.0 s	0.0 m	0.0 v	0.0 q
76 2013 Dollar Spot Greens Prog #15		14 ²¹	0.0 p	0.0 s	0.0 m	0.0 v	0.0 q
77 Daconil Ultrex 82.5WDG	3.25 oz	-					
+ Insignia Intrinsic 2.1SC	0.7 fl oz	21	0.3 op	0.3 s	0.0 m	1.0 s-v	1.8 l-q
78 2013 Dollar Spot Greens Prog #16		21 ²²	0.0 p	0.0 s	0.0 m	1.8 p-v	1.3 m-q
79 2013 Dollar Spot Greens Prog #17		21 ²³	0.0 p	0.3 s	0.0 m	0.0 v	0.3 pq
80 Secure 4.17SC	0.5 fl oz	-					
+ Insignia Intrinsic 2.1SC	0.7 fl oz	21	0.3 op	0.0 s	0.0 m	1.0 s-v	1.0 n-q
81 2013 Dollar Spot Greens Prog #18	0.5 fl oz	21 ²⁴	0.5 n-p	0.3 s	0.0 m	0.0 v	1.0 n-q
82 2013 Dollar Spot Greens Prog #19		21 ²⁵	1.3 i-p	1.5 n-s	0.5 lm	1.3 r-v	2.8 h-q
83 Daconil Ultrex 82.5WDG	3.2 oz	14	4.0 g-m	2.8 m-s	2.3 i-m	5.8 j-s	4.3 f-q
84 Emerald 70WG	0.18 oz	21	0.8 m-p	1.8 m-s	1.3 k-m	1.0 s-v	0.5 o-q
85 Emerald 70WG	0.18 oz	28	0.8 m-p	4.3 j-s	3.3 i-m	6.0 j-r	3.5 f-q
86 Chipco 26GT 2SC	4.0 fl oz	14	1.5 k-p	1.8 m-s	2.0 i-m	4.5 j-v	2.3 j-q
87 Curalan 50EG	1.0 oz	14	2.8 h-p	6.5 h-n	4.0 i-m	7.5 i-n	4.5 f-q
88 Secure 4.17SC	0.5 fl oz	14	1.8 j-p	0.5 rs	1.0 k-m	2.0 p-v	3.3 f-q
89 Banner Maxx 1.3ME	1.0 fl oz	21	1.0 m-p	2.3 m-s	0.5 lm	2.8 n-v	1.0 n-q
90 Daconil Ultrex 82.5WDG	3.2 oz	14	2.5 i-p	2.3 m-s	1.3 k-m	3.8 k-v	6.5 e-l
91 Daconil Ultrex 82.5WDG	3.2 oz	14	3.5 g-o	2.5 m-s	3.3 i-m	5.5 j-t	7.0 e-k
92 Daconil Ultrex 82.5WDG	3.2 oz	14	2.5 i-p	3.8 i-s	2.5 i-m	5.8 j-s	7.8 e-h
93 Daconil Ultrex 82.5WDG	3.2 oz	14	2.8 h-p	2.0 m-s	1.8 j-m	5.8 j-s	7.0 e-k
94 Daconil Ultrex 82.5WDG	3.2 oz	14	4.5 g-l	3.0 m-s	1.5 j-m	5.5 j-t	6.5 e-l
95 Daconil Ultrex 82.5WDG	3.2 oz	14	4.5 g-l	3.3 i-s	2.8 i-m	5.8 j-s	5.3 e-p

(Continued)

Table 1A. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹				
			13 June	23 June	3 July	13 July	23 July
96 Daconil Ultrex 82.5WDG	3.2 oz	14	3.0 h-p	3.0 m-s	1.8 j-m	5.5 j-t	7.5 e-i
97 RU-21196-13B SC	2.66 fl oz	14	1.0 m-p	1.3 o-s	1.5 j-m	2.0 p-v	3.8 f-q
98 Daconil Ultrex 82.5WDG	3.2 oz	14	3.0 h-p	2.3 m-s	2.0 i-m	4.3 j-v	7.3 e-j
99 Daconil Ultrex 82.5WDG	3.2 oz	14	3.3 h-p	2.3 m-s	2.0 i-m	4.8 j-v	8.3 ef
100 Untreated Check	—	—	18.3 a	28.5 b	32.0 a	35.3 ab	42.5 a
101 Untreated Check	—	—	17.3 a	37.3 a	34.3 a	37.5 a	44.5 a

	INT ²⁶	DAT ²⁷	DAT	DAT	DAT	DAT
	7	2	5	1	4	7
	14	2	12	8	4	14
	21	16	5	15	4	14
	28	16	26	8	18	28

¹ Values are means of four replicates. Means followed by the same letter are not significantly different according to Waller-Duncan k-ratio t-test (k=100).

² Fungicides were applied on 28 May (all treatments; except treatment 15), 4 June (7-day treatment), 11 June (7- and 14-day treatments), 18 June (7- and 21-day treatments; initiated treatment 15), 25 June (7-, 14-, and 28-day treatments), 2 July (7-day treatment), 9 July (7-, 14-, and 21-day treatments), 16 July (7-day treatment), 23 July (7-, 14-, and 28-day treatments), 30 July (7- and 21-day treatments), 6 August (7- and 14-day treatments), 13 August (7-day treatment), and 20 August (treatments 9G, 10G, 32G, 45, 46, 47, 65A, 66A, 67A, and 68A).

³ Treatment 9 (2013 Bayer Dollar Spot Greens Program #1) consisted of Triton Flo 3SC (0.75 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (3.0 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.

⁴ Treatment 10 (2013 Bayer Dollar Spot Greens Program #2) consisted of Tartan 2.4SC (1.5 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Tartan 2.4SC (1.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (4.0 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (5.97 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.

(Continued)

Table 1A. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ⁵ Treatment 15 was applied on a curative basis when the number of dollar spot lesion centers exceeded 5 for any replicate plot on 18 June and then was repeated every 21 days until 30 July.
- ⁶ Treatments 17 and 22 were applied once on 28 May.
- ⁷ Treatment 32 (2013 Sipcam Advan \$-Spot Greens Program #3) consisted of Eclipse SC (4.0 fl oz) + Phyte-Off 6F (2.0 fl oz) applied on 28 May, and Echo Dyad ETQ 6F (5.0 fl oz) + Phyte-off 6F (2.0 fl oz) on 11 June, 25 June, 9 July, 23 July, 6 August, and 20 August.
- ⁸ Treatments 44 to 47 were irrigated with 0.5 gal of water per plot immediately after the application of BW136N 513G or BW136N 513WP, but not CEASE SC.
- ⁹ ALT = Alternation treatment, where treatment 44 consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, and BW136N 513WP (2.5 oz) on 25 June.
- ¹⁰ ALT = Alternation treatment, where treatment 45 (2013 Dollar Spot Greens Program #4) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513WP (1.5 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513WP (0.75 oz) on 9 July.
- ¹¹ ALT = Alternation treatment, where treatment 46 (2013 Dollar Spot Greens Program #5) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513G (32.0 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513G (32.0 oz) on 9 July.
- ¹² ALT = Alternation treatment, where treatment 47 (2013 Dollar Spot Greens Program #6) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, Cease SC (6.0 fl oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and Cease SC (6.0 fl oz) on 9 July.
- ¹³ Treatment 65 (2013 BASF Dollar Spot Greens Program #7) consisted of Lexicon Intrinsic 4.17SC (0.47 fl oz) applied on 28 May, Insignia 2.1SC (0.7 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Insignia 2.1SC (0.7 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁴ Treatment 66 (2013 BASF Dollar Spot Greens Program #8) consisted of Headway 1.39EC (3.0 fl oz) applied on 28 May, Heritage TL 0.8ME (2.0 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Heritage TL 0.8ME (2.0 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁵ Treatment 67 (2013 BASF Dollar Spot Greens Program #9) consisted of Disarm M 3.9SC (1.0 fl oz) applied on 28 May, Disarm 480SC (0.36 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Disarm 480SC (0.36 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁶ Treatment 68 (2013 BASF Dollar Spot Greens Program #10) consisted of Tartan 2.4SC (2.0 fl oz) applied on 28 May, Compass 50WG (0.25 oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Compass 50WG (0.25 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁷ ALT = Alternation treatment, where treatment 70 (2013 Nufarm Dollar Spot Greens Program #11) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) on 11 June, 9 July, and 6 August.

(Continued)

Table 1A. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ¹⁸ ALT = Alternation treatment, where treatment 71 (2013 Nufarm Dollar Spot Greens Program #12) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.092 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.092 oz) on 11 June, 9 July, and 6 August.
- ¹⁹ ALT = Alternation treatment, where treatment 72 (2013 Nufarm Dollar Spot Greens Program #13) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.18 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.18 oz) on 11 June, 9 July, and 6 August.
- ²⁰ Treatment 74 (2013 Dollar Spot Greens Program #14) consisted of Daconil Ultrex 82.5WDG (1.8 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²¹ Treatment 76 (2013 Dollar Spot Greens Program #15) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²² Treatment 78 (2013 Dollar Spot Greens Program #16) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²³ Treatment 79 (2013 Dollar Spot Greens Program #17) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁴ Treatment 81 (2013 Dollar Spot Greens Program #18) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²⁵ Treatment 82 (2013 Dollar Spot Greens Program #19) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁶ INT = Spray interval in days.
- ²⁷ DAT = Days after the last treatment.

Table 1B. Influence of fungicides and biorational products on dollar spot development of a creeping bentgrass green, Test 1: Rutgers University, 2013.

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹			
			2 Aug.	12 Aug.	22 Aug.	1 Sept.
1 RU-21196-13A SC	2.0 fl oz	14	0.0 v	0.0 l	0.0 z'b'	3.0 z'i'-l'
2 RU-21196-13A SC	4.0 fl oz	14	0.0 v	0.0 l	0.0 z'b'	0.3 z'l'
3 RU-21196-13B SC	5.33 fl oz	14	0.0 v	0.0 l	0.8 z-z'b'	5.8 z'g'-l'
4 RU-21196-13A SC	2.0 fl oz	21	0.0 v	0.0 l	1.0 z-z'b'	10.5 z'c'-l'
5 RU-21196-13B SC	2.66 fl oz	21	0.5 uv	2.8 j-l	6.8 o-z'b'	24.3 q-z'c'
6 RU-21196-13C SC	1.0 fl oz	14	5.5 m-v	1.5 kl	7.8 n-z'b'	30.8 m-y
7 RU-21196-13C SC	2.0 fl oz	14	4.8 n-v	0.8 kl	6.5 o-z'b'	27.8 o-z
8 RU-21196-13C SC	1.0 fl oz	21	11.3 h-p	20.0 g	20.0 ij	93.8 fg
9 2013 Dollar Spot Greens Prog #1	Bayer	14 ³	3.3 r-v	0.0 l	2.5 t-z'b'	9.5 z'd'-l'
10 2013 Dollar Spot Greens Prog #2	Bayer	14 ⁴	0.5 uv	0.0 l	0.0 z'b'	2.3 z'j'-l'
11 RU-2125-123HSC	1.65 fl oz	7	0.0 v	0.0 l	0.3 z'a'b'	8.0 z'f'-l'
12 RU-2125-123HSC	1.65 fl oz	14	1.5 t-v	2.0 kl	5.3 p-z'b'	16.8 y-z'i'
13 RU-2125-123HSC	3.3 fl oz	14	0.5 uv	0.0 l	1.8 w-z'b'	15.0 z-z'k'
14 RU-2125-123HSC	4.36 fl oz	21	0.0 v	0.8 kl	2.0 v-z'b'	10.3 z'c'-l'
15 RU-2125-123HSC	4.36 fl oz	CUR-21 ⁵	0.0 v	1.5 kl	3.8 r-z'b'	18.0 x-z'h'
16 RU-2125-123HSC	6.6 fl oz	28	1.0 t-v	3.8 h-l	5.0 q-z'b'	21.3 v-z'f'
17 RU-2125-123HSC	13.2 fl oz	Once ⁶	18.5 f-h	27.5 f	42.5 g	103.3 ef
18 RU-2125-123ISC	1.65 fl oz	7	0.5 uv	1.5 kl	2.5 t-z'b'	12.5 z'a'-l'
19 RU-2125-123ISC	3.3 fl oz	14	3.3 r-v	1.8 kl	4.0 r-z'b'	23.8 r-z'd'
20 RU-2125-123ISC	4.33 fl oz	21	0.0 v	4.5 h-l	9.5 l-z'a'	28.8 n-z
21 RU-2125-123ISC	6.6 fl oz	28	3.3 r-v	9.8 h	12.5 j-r	50.5 i-k
22 RU-2125-123ISC	13.13 fl oz	Once ⁶	10.8 i-q	19.8 g	30.0 h	82.0 gh
23 Interface 2.27SC	4.0 fl oz	14	1.5 t-v	0.0 l	1.3 y-z'b'	8.5 z'f'-l'
24 Honor Intrinsic 28WG	0.84 oz	14	0.0 v	0.0 l	0.0 z'b'	0.8 z'k'-l'
25 SA-0010236 F	10.0 fl oz	14	18.8 fg	4.3 h-l	16.5 j-n	45.8 i-l
26 Insignia Intrinsic 2.1SC	0.7 fl oz	14	0.0 v	0.8 kl	2.3 u-z'b'	10.0 z'c'-l'
27 SA-0290101 F	0.5 fl oz	14	0.5 uv	0.5 kl	2.3 u-z'b'	11.8 z'b'-l'
28 SA-0290102 F	0.52 fl oz	14	5.0 m-v	0.8 kl	8.3 n-z'b'	31.0 m-y
29 Echo Dyad ETQ 6F	5.0 fl oz	14	7.5 k-u	2.0 kl	6.0 o-z'b'	21.8 t-z'f'

(Continued)

Table 1B. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹			
			2 Aug.	12 Aug.	22 Aug.	1 Sept.
30 SA-0010233 F.....	5.0 fl oz	14	6.3 l-v	2.3 j-l	8.5 n-z'b'	34.8 l-w
31 Echo 7206F.....	3.6 fl oz	14	8.0 j-t	1.8 kl	11.5 j-u	38.0 j-r
32 2013 Dollar Spot Greens Prog #3.....	Sipcam	14 ⁷	3.5 q-v	0.0 l	2.8 t-z'b'	5.5 z'g'-l'
33 SA-0010235 F.....	7.0 fl oz	14	7.3 k-v	0.8 kl	9.3 m-z'b'	21.5 u-z'f
34 HM07363.51LC.....	0.321 fl oz	14	37.5 c	40.0 de	64.8 de	101.8 ef
35 Echo6.1SC.....	3.5 fl oz	14	18.8 fg	4.5 h-l	18.8 h-l	52.0 ij
36 HM07363.51LC.....	0.321 fl oz	-				
+ Echo6.1SC.....	3.5 fl oz	14	12.0 g-n	4.5 h-l	11.3 j-v	39.0 j-p
37 Daconil Action 6.1SC.....	3.5 fl oz	14	3.0 r-v	0.8 kl	5.3 p-z'b'	26.0 p-z'b'
38 Emerald 70WG.....	0.13 oz	14	0.0 v	0.0 l	0.0 z'b'	4.3 z'g'-l'
39 Chipco Signature 80WG.....	4.0 oz	-				
+ Daconil Ultrex 82.5WDG.....	3.2 oz	14	7.5 k-u	2.0 kl	9.3 m-z'b'	37.3 k-s
40 Spectro 90WG.....	5.75 oz	14	13.3 g-l	6.3 h-l	19.5 i-k	40.8 j-o
41 RU-229225-13A LC.....	0.25 fl oz	-				
+ RU-229225-13B LC.....	1.28 fl oz	14	3.0 r-v	2.0 kl	7.3 n-z'b'	38.8 j-p
42 RU-229225-13A LC.....	0.5 fl oz	-				
+ RU-229225-13B LC.....	1.28 fl oz	14	0.5 uv	0.5 kl	3.0 s-z'b'	23.3 s-z'e'
43 RU-229225-13A LC.....	1.0 fl oz	-				
+ RU-229225-13B LC.....	1.28 fl oz	14	0 v	0.0 l	0.0 z'b'	7.8 z'f-l'
44 BW136N513G.....	64.0 oz	May 28, July 23				
/ BW136N 513WP.....	2.5 oz	June 25 ^{8,9}	13.0 g-l	16.3 g	26.3 hi	56.3 i
45 2013 Dollar Spot Greens Prog #4.....	-	14 ^{8,10}	35.5 cd	51.0 c	87.8 c	130.0 d
46 2013 Dollar Spot Greens Prog #5.....	-	14 ^{8,11}	35.8 cd	45.0 cd	71.5 d	111.8 e
47 2013 Dollar Spot Greens Prog #6.....	-	14 ^{8,12}	60.5 b	75.0 b	137.5 a	147.0 c
48 QP Enclave 5.3F.....	3.0 fl oz	-				
+ Foursome 100SL.....	0.4 fl oz	14	9.3 i-s	1.3 kl	7.8 n-z'b'	31.5 l-x
49 QP Enclave 5.3F.....	4.0 fl oz	-				
+ Foursome 100SL.....	0.4 fl oz	21	0.0 v	6.8 h-k	8.8 m-z'b'	33.3 l-w

(Continued)

Table 1B. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹			
			2 Aug.	12 Aug.	22 Aug.	1 Sept.
50 QP Enclave 5.3F.....	3.0 fl oz	-				
+ QP Foseyl-AI 80WDG.....	4.0 oz	-				
+ Foursome 100SL.....	0.4 fl oz	14	7.5 k-u	1.0 kl	7.8 n-z'b'	45.5 i-l
51 QP Enclave 5.3F.....	4.0 fl oz	-				
+ QP Foseyl-AI 80WDG.....	4.0 oz	-				
+ Foursome 100SL.....	0.4 fl oz	21	0.0 v	4.8 h-l	8.8 m-z'b'	41.5 j-o
52 Regalia 5LC.....	2.0 fl oz	7	25.5 ef	35.5 e	57.8 ef	92.8 fg
53 RU 13118-13ALC.....	4.0 oz	7	68.8 a	73.8 b	128.0 b	163.0 b
54 RU 13118-13ALC.....	8.0 oz	7	28.8 de	37.5 e	54.8 f	110.5 e
55 RU 13118-13B LC.....	2.0 fl oz	-				
+ RU 13118-13A LC.....	4.0 oz	7	34.3 cd	34.0 e	60.5 ef	114.3 e
56 K-1 LC.....	1.0 fl oz	-				
+ Daconil Ultrex 82.5WDG.....	3.25 oz	14	6.0 l-v	1.0 kl	10.5 k-y	38.3 j-q
57 K-1 LC.....	1.0 fl oz	-				
+ Daconil Ultrex 82.5WDG.....	2.5 oz	14	9.0 i-s	2.0 kl	14.0 j-q	37.5 k-s
58 K-1 LC.....	2.0 fl oz	-				
+ Banner Maxx 1.3ME.....	1.0 fl oz	21	0.8 t-v	6.8 h-k	12.3 j-s	71.3 h
59 K-1 LC.....	2.0 fl oz	-				
+ Banner Maxx 1.3ME.....	0.75 fl oz	21	1.0 t-v	9.5 hi	18.0 i-m	44.8 i-m
60 Encartis 6.24SC.....	3.0 fl oz	14	0.0 v	0.0 l	0.0 z'b'	8.3 z'f-l'
61 Encartis 6.24SC.....	4.0 fl oz	21	0.0 v	1.0 kl	2.0 v-z'b'	9.0 z'e-l'
62 Xzemplar 2.5SC.....	0.21 fl oz	21	0.0 v	0.5 kl	0.5 z'a'b'	11.5 z'c-l'
63 Xzemplar 2.5SC.....	0.26 fl oz	28	0.8 t-v	5.5 h-l	11.0 j-w	38.3 j-q
64 Emerald 70WG.....	0.18 oz	28	0.5 uv	3.0 j-l	5.0 q-z'b'	22.0 t-z'f
65 2013 Dollar Spot Greens Prog #7.....	BASF	14 ¹³	4.0 p-v	0.0 l	6.0 o-z'b'	18.0 x-z'h'
66 2013 Dollar Spot Greens Prog #8.....	BASF	14 ¹⁴	4.3 p-v	1.8 kl	5.3 p-z'b'	11.8 z'b-l'
67 2013 Dollar Spot Greens Prog #9.....	BASF	14 ¹⁵	9.3 i-s	3.3 i-l	9.0 m-z'b'	20.5 w-z'f
68 2013 Dollar Spot Greens Prog #10.....	BASF	14 ¹⁶	18.5 f-h	4.5 h-l	12.8 j-r	38.3 j-q
69 Tourney 50WG.....	0.28 oz	-				
+ S2200 4SC.....	0.25 fl oz	21	4.0 p-v	0.5 kl	6.0 o-z'b'	26.3 p-z'a'

(Continued)

Table 1B. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹			
			2 Aug.	12 Aug.	22 Aug.	1 Sept.
70 2013 Dollar Spot Greens Prog #11 ... Nufarm		14 ¹⁷	4.5 o-v	0.8 kl	4.3 r-z'b'	30.5 m-y
71 2013 Dollar Spot Greens Prog #12... Nufarm		14 ¹⁸	5.0 m-v	2.3 j-l	9.0 m-z'b'	43.8 i-m
72 2013 Dollar Spot Greens Prog #13... Nufarm		14 ¹⁹	0.0 v	0.0 l	1.5 x-z'b'	18.3 x-z'g'
73 Daconil Ultrex 82.5WDG..... 1.8 oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		14	0.0 v	0.0 l	2.0 v-z'b'	12.8 z'a'-l'
74 2013 Dollar Spot Greens Prog #14..... -		14 ²⁰	0.0 v	0.0 l	1.5 x-z'b'	12.0 z'a'-l'
75 Secure 4.17SC..... 0.5 fl oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		14	0.5 uv	0.0 l	0.0 z'b'	4.5 z'g'-l'
76 2013 Dollar Spot Greens Prog #15..... -		14 ²¹	0.0 v	0.0 l	0.0 z'b'	3.8 z'h'-l'
77 Daconil Ultrex 82.5WDG..... 3.25 oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		21	0.0 v	2.5 j-l	5.0 q-z'b'	21.5 u-z'f'
78 2013 Dollar Spot Greens Prog #16..... -		21 ²²	0.0 v	5.0 h-l	7.5 n-z'b'	18.3 x-z'g'
79 2013 Dollar Spot Greens Prog #17..... -		21 ²³	0 v	4.5 h-l	6.8 o-z'b'	16.0 z-z'j'
80 Secure 4.17SC..... 0.5 fl oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		21	0.0 v	0.0 l	1.3 y-z'b'	11.3 z'c'-l'
81 2013 Dollar Spot Greens Prog #18.. 0.5 fl oz		21 ²⁴	0.0 v	0.0 l	1.0 z-z'b'	10.5 z'c'-l'
82 2013 Dollar Spot Greens Prog #19..... -		21 ²⁵	0.0 v	0.0 l	2.0 v-z'b'	11.8 z'b'-l'
83 Daconil Ultrex 82.5WDG..... 3.2 oz		14	7.3 k-v	3.3 i-l	14.8 j-o	39.0 j-p
84 Emerald 70WG..... 0.18 oz		21	0.0 v	0.8 kl	0.8 z-z'b'	6.0 z'g'-l'
85 Emerald 70WG..... 0.18 oz		28	2.5 s-v	8.5 h-j	11.0 j-w	29.3 n-z
86 Chipco 26GT 2SC..... 4.0 fl oz		14	5.5 m-v	1.8 kl	6.8 o-z'b'	34.3 l-w
87 Curalan 50EG..... 1.0 oz		14	10.0 i-r	4.0 h-l	18.0 i-m	42.0 i-o
88 Secure 4.17SC..... 0.5 fl oz		14	5.3 m-v	1.3 kl	9.5 l-z'a'	30.8 m-y
89 Banner Maxx 1.3ME..... 1.0 fl oz		21	0.8 t-v	2.3 j-l	5.0 q-z'b'	20.8 w-z'f'
90 Daconil Ultrex 82.5WDG..... 3.2 oz		14	14.0 g-k	1.5 kl	10.0 l-z	32.8 l-w
91 Daconil Ultrex 82.5WDG..... 3.2 oz		14	15.3 g-j	4.5 h-l	13.8 j-q	35.8 l-u
92 Daconil Ultrex 82.5WDG..... 3.2 oz		14	11.0 i-p	2.0 kl	12.8 j-r	41.3 j-o
93 Daconil Ultrex 82.5WDG..... 3.2 oz		14	11.8 g-o	2.5 j-l	10.8 j-x	36.0 l-t
94 Daconil Ultrex 82.5WDG..... 3.2 oz		14	16.3 g-i	5.3 h-l	14.5 j-p	44.0 i-m
95 Daconil Ultrex 82.5WDG..... 3.2 oz		14	14.0 g-k	4.3 h-l	12.8 j-r	42.0 i-o

Table 1B. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Number of Dollar Spot Lesion Centers per Plot ¹			
			2 Aug.	12 Aug.	22 Aug.	1 Sept.
96 Daconil Ultrex 82.5WDG	3.2 oz	14	12.3 g-m	1.5 kl	11.0 j-w	34.5 l-w
97 RU-21196-13B SC	2.66 fl oz	14	9.8 i-s	3.0 j-l	8.3 n-z ³ b ⁴	31.0 m-y
98 Daconil Ultrex 82.5WDG	3.2 oz	14	13.3 g-l	3.5 h-l	13.8 j-q	42.5 i-n
99 Daconil Ultrex 82.5WDG	3.2 oz	14	13.3 g-l	2.3 j-l	11.8 j-t	35.5 l-v
100 Untreated Check	—	—	64.0 ab	89.8 a	137.5 a	163.8 b
101 Untreated Check	—	—	60.8 b	87.5 a	142.5 a	202.5 a

	INT ²⁶	DAT ²⁷	DAT	DAT	DAT
	7	3	6	9	19
	14	10	6	16	26
	21	3	13	23	33
	28	10	20	30	40

¹ Values are means of four replicates. Means followed by the same letter are not significantly different according to Waller-Duncan k-ratio t-test (k=100).

² Fungicides were applied on 28 May (all treatments; except treatment 15), 4 June (7-day treatment), 11 June (7- and 14-day treatments), 18 June (7- and 21-day treatments; initiated treatment 15), 25 June (7-, 14-, and 28-day treatments), 2 July (7-day treatment), 9 July (7-, 14-, and 21-day treatments), 16 July (7-day treatment), 23 July (7-, 14-, and 28-day treatments), 30 July (7- and 21-day treatments), 6 August (7- and 14-day treatments), 13 August (7-day treatment), and 20 August (treatments 9G, 10G, 32G, 45, 46, 47, 65A, 66A, 67A, and 68A).

³ Treatment 9 (2013 Bayer Dollar Spot Greens Program #1) consisted of Triton Flo 3SC (0.75 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (3.0 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.

⁴ Treatment 10 (2013 Bayer Dollar Spot Greens Program #2) consisted of Tartan 2.4SC (1.5 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Tartan 2.4SC (1.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (4.0 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (5.97 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.

(Continued)

Table 1B. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ⁵ Treatment 15 was applied on a curative basis when the number of dollar spot lesion centers exceeded 5 for any replicate plot on 18 June and then was repeated every 21 days until 30 July.
- ⁶ Treatments 17 and 22 were applied once on 28 May.
- ⁷ Treatment 32 (2013 Sipcam Advan \$-Spot Greens Program #3) consisted of Eclipse SC (4.0 fl oz) + Phyte-Off 6F (2.0 fl oz) applied on 28 May, and Echo Dyad ETQ 6F (5.0 fl oz) + Phyte-off 6F (2.0 fl oz) on 11 June, 25 June, 9 July, 23 July, 6 August, and 20 August.
- ⁸ Treatments 44 to 47 were irrigated with 0.5 gal of water per plot immediately after the application of BW136N 513G or BW136N 513WP, but not CEASE SC.
- ⁹ ALT = Alternation treatment, where treatment 44 consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, and BW136N 513WP (2.5 oz) on 25 June.
- ¹⁰ ALT = Alternation treatment, where treatment 45 (2013 Dollar Spot Greens Program #4) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513WP (1.5 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513WP (0.75 oz) on 9 July.
- ¹¹ ALT = Alternation treatment, where treatment 46 (2013 Dollar Spot Greens Program #5) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513G (32.0 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513G (32.0 oz) on 9 July.
- ¹² ALT = Alternation treatment, where treatment 47 (2013 Dollar Spot Greens Program #6) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, Cease SC (6.0 fl oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and Cease SC (6.0 fl oz) on 9 July.
- ¹³ Treatment 65 (2013 BASF Dollar Spot Greens Program #7) consisted of Lexicon Intrinsic 4.17SC (0.47 fl oz) applied on 28 May, Insignia 2.1SC (0.7 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Insignia 2.1SC (0.7 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁴ Treatment 66 (2013 BASF Dollar Spot Greens Program #8) consisted of Headway 1.39EC (3.0 fl oz) applied on 28 May, Heritage TL 0.8ME (2.0 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Heritage TL 0.8ME (2.0 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁵ Treatment 67 (2013 BASF Dollar Spot Greens Program #9) consisted of Disarm M 3.9SC (1.0 fl oz) applied on 28 May, Disarm 480SC (0.36 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Disarm 480SC (0.36 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁶ Treatment 68 (2013 BASF Dollar Spot Greens Program #10) consisted of Tartan 2.4SC (2.0 fl oz) applied on 28 May, Compass 50WG (0.25 oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Compass 50WG (0.25 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁷ ALT = Alternation treatment, where treatment 70 (2013 Nufarm Dollar Spot Greens Program #11) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) on 11 June, 9 July, and 6 August.

(Continued)

Table 1B. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ¹⁸ ALT = Alternation treatment, where treatment 71 (2013 Nufarm Dollar Spot Greens Program #12) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.092 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.092 oz) on 11 June, 9 July, and 6 August.
- ¹⁹ ALT = Alternation treatment, where treatment 72 (2013 Nufarm Dollar Spot Greens Program #13) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.18 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.18 oz) on 11 June, 9 July, and 6 August.
- ²⁰ Treatment 74 (2013 Dollar Spot Greens Program #14) consisted of Daconil Ultrex 82.5WDG (1.8 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²¹ Treatment 76 (2013 Dollar Spot Greens Program #15) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²² Treatment 78 (2013 Dollar Spot Greens Program #16) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²³ Treatment 79 (2013 Dollar Spot Greens Program #17) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁴ Treatment 81 (2013 Dollar Spot Greens Program #18) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²⁵ Treatment 82 (2013 Dollar Spot Greens Program #19) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁶ INT = Spray interval in days.
- ²⁷ DAT = Days after the last treatment.

Table 1C. Influence of fungicides and biorational products on dollar spot development of a creeping bentgrass green, Test 1: Rutgers University, 2013.

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Turf Quality ^{1,2}			Color ³		
			25 June	23 July	20 Aug.	25 June	23 July	20 Aug.
1 RU-21196-13A SC	2.0 fl oz	14	7.8 a-g	7.8 a-g	8.5 ab	4.9 p	5.0 j-m	5.4 c-f
2 RU-21196-13A SC	4.0 fl oz	14	8.1 a-c	8.2 a-c	8.5 ab	5.5 k-n	5.0 j-m	5.4 c-f
3 RU-21196-13B SC	5.33 fl oz	14	6.2 s-z'd'	7.3 a-m	8.2 a-c	5.0 op	5.0 j-m	5.3 d-g
4 RU-21196-13A SC	2.0 fl oz	21	7.0 g-s	7.4 a-l	8.0 a-d	4.9 p	5.0 j-m	5.0 g-i
5 RU-21196-13B SC	2.66 fl oz	21	7.3 c-n	7.3 a-n	5.7 m-x	5.0 op	5.0 j-m	5.1 f-h
6 RU-21196-13C SC	1.0 fl oz	14	5.9 x-z'f'	6.7 e-t	5.0 s-z'e'	5.0 op	5.0 j-m	5.2 e-h
7 RU-21196-13C SC	2.0 fl oz	14	6.2 s-z'd'	6.9 c-r	5.2 q-z'b'	5.0 op	5.0 j-m	5.3 d-g
8 RU-21196-13C SC	1.0 fl oz	21	6.1 u-z'f'	5.1 w-z'c'	4.2 z'd'-j'	5.1 n-p	5.0 j-m	5.1 f-h
9 2013 Dollar Spot Greens Prog #1	..... Bayer	14 ⁵	6.4 p-z'b'	6.9 c-r	7.2 c-f	5.6 j-m	5.0 j-m	5.1 f-h
10 2013 Dollar Spot Greens Prog #2	..... Bayer	14 ⁶	6.9 h-u	7.4 a-l	8.5 ab	5.9 h-k	5.0 j-m	5.6 bc
11 RU-2125-123H SC	1.65 fl oz	7	7.6 b-i	8.0 a-e	8.0 a-d	6.3 e-h	5.4 g-j	5.1 f-h
12 RU-2125-123H SC	1.65 fl oz	14	6.9 h-u	7.1 b-o	6.2 h-q	5.1 n-p	4.9 k-m	5.0 g-i
13 RU-2125-123H SC	3.3 fl oz	14	7.0 h-t	7.3 a-n	6.4 f-n	6.4 d-g	5.3 h-k	5.1 f-h
14 RU-2125-123H SC	4.36 fl oz	21	7.6 b-h	7.3 a-n	6.4 f-n	5.3 m-p	5.5 f-i	5.1 f-h
15 RU-2125-123H SC	4.36 fl oz	CUR-21 ⁷	7.5 b-j	7.0 b-p	6.0 j-r	5.4 l-o	5.1 i-l	5.1 f-h
16 RU-2125-123H SC	6.6 fl oz	28	6.5 n-y	8.2 a-d	5.2 q-z'c'	6.9 bc	5.8 d-g	5.0 g-i
17 RU-2125-123H SC	13.2 fl oz	Once ⁸	6.5 n-y	5.1 w-z'c'	4.2 z'd'-j'	5.0 op	5.1 i-l	4.8 i
18 RU-2125-123I SC	1.65 fl oz	7	8.0 a-d	7.7 a-i	6.2 g-p	5.8 i-l	5.4 g-j	5.1 f-h
19 RU-2125-123I SC	3.3 fl oz	14	7.0 g-s	6.9 d-r	5.9 k-s	5.5 k-n	5.1 i-l	5.0 g-i
20 RU-2125-123I SC	4.33 fl oz	21	7.4 c-m	6.7 e-t	5.5 n-z'b'	5.5 k-n	5.0 j-m	5.3 d-g
21 RU-2125-123I SC	6.6 fl oz	28	6.1 u-z'f'	7.1 b-o	5.0 s-z'e'	6.0 g-j	5.9 c-f	5.0 g-i
22 RU-2125-123I SC	13.13 fl oz	Once ⁸	6.7 j-w	6.6 g-t	4.6 z-z'h'	5.1 n-p	5.0 j-m	5.0 g-i
23 Interface 2.27SC	4.0 fl oz	14	6.9 h-t	7.3 a-n	7.1 d-i	6.4 d-g	5.3 h-k	5.0 g-i
24 Honor Intrinsic 28WG	0.84 oz	14	7.1 f-r	6.9 c-r	8.5 ab	5.0 op	5.0 j-m	5.0 g-i
25 SA-0010236 F	10.0 fl oz	14	5.7 y-z'g'	6.3 j-x	4.8 v-z'f'	6.8 cd	6.1 b-d	5.0 g-i
26 Insignia Intrinsic 2.1SC	0.7 fl oz	14	7.1 e-q	7.0 c-q	7.1 d-h	5.0 op	5.0 j-m	5.1 f-h
27 SA-0290101 F	0.5 fl oz	14	7.4 c-l	7.0 c-q	6.8 e-k	5.0 op	4.9 k-m	5.0 g-i
28 SA-0290102 F	0.52 fl oz	14	6.3 q-z'b'	7.1 b-o	4.9 u-z'e'	5.0 op	5.0 j-m	5.0 g-i
29 Echo Dyad ETQ 6F	5.0 fl oz	14	6.4 o-z'a'	6.6 g-t	5.1 r-z'd'	6.5 c-f	5.5 f-i	5.0 g-i

(Continued)

Table 1C. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Turf Quality ^{1,2}			Color ³		
			25 June	23 July	20 Aug.	25 June	23 July	20 Aug.
30 SA-0010233 F.....	5.0 fl oz	14	5.6 z'a'-g'	6.4 i-x	4.7 y-z'h'	7.4 a	6.8 a	6.4 a
31 Echo 720 6F.....	3.6 fl oz	14	6.2 s-z'c'	6.7 ft	4.7 y-z'h'	5.0 op	5.0 j-m	5.0 g-i
32 2013 Dollar Spot Greens Prog #3..... Sipcam		14 ⁹	6.7 j-w	7.3 a-n	8.0 a-d	6.1 f-i	5.4 g-j	5.8 b
33 SA-0010235 F.....	7.0 fl oz	14	6.8 i-v	8.0 a-f	5.4 n-z'b'	7.3 ab	6.0 c-e	5.1 f-h
34 HM0736 3.51LC.....	0.321 fl oz	14	5.9 x-z'f'	5.2 u-z'c'	3.8 z'f'-j'	5.0 op	5.0 j-m	5.0 g-i
35 Echo 6.1SC.....	3.5 fl oz	14	5.7 z-z'g'	6.0 n-z	4.8 v-z'f'	5.3 m-p	5.0 j-m	5.0 g-i
36 HM0736 3.51LC.....	0.321 fl oz	-						
+ Echo 6.1SC.....	3.5 fl oz	14	6.2 s-z'c'	6.0 n-z	4.9 t-z'e'	5.1 n-p	5.0 j-m	5.1 f-h
37 Daconil Action 6.1SC.....	3.5 fl oz	14	6.0 v-z'f'	6.3 k-x	5.5 m-z	5.5 k-n	5.2 i-k	5.3 d-g
38 Emerald 70WG.....	0.13 oz	14	6.1 t-z'e'	6.4 h-w	6.1 i-q	5.0 op	4.9 k-m	4.9 hi
39 Chipco Signature 80WG.....	4.0 oz	-						
+ Daconil Ultrex 82.5WDG.....	3.2 oz	14	6.2 s-z'd'	7.2 a-n	4.9 t-z'e'	5.9 h-k	5.3 h-k	5.1 f-h
40 Spectro 90WG.....	5.75 oz	14	6.4 u-z'f'	6.5 g-t	4.8 v-z'f'	5.3 m-p	5.6 e-h	5.0 g-i
41 RU-229225-13A LC.....	0.25 fl oz	-						
+ RU-229225-13B LC.....	1.28 fl oz	14	6.7 k-x	6.7 ft	4.6 z-z'h'	5.1 n-p	5.0 j-m	4.9 hi
42 RU-229225-13A LC.....	0.5 fl oz	-						
+ RU-229225-13B LC.....	1.28 fl oz	14	6.9 h-u	7.2 a-o	6.9 e-j	5.0 op	5.0 j-m	5.0 g-i
43 RU-229225-13A LC.....	1.0 fl oz	-						
+ RU-229225-13B LC.....	1.28 fl oz	14	7.5 b-j	7.6 a-k	8.3 ab	5.0 op	5.0 j-m	5.1 f-h
44 BW136N 513G.....	64.0 oz	May 28, July 23						
/ BW136N 513WP.....	2.5 oz	June 25 ^{10,11}	6.1 u-z'f'	5.5 s-z'a'	4.6 y-z'h'	5.0 op	4.9 k-m	4.9 hi
45 2013 Dollar Spot Greens Prog #4..... BioWorks		14 ^{10,12}	5.4 z'd'-h'	5.1 x-z'c'	4.2 z'c'-j'	4.9 p	4.9 k-m	5.0 g-i
46 2013 Dollar Spot Greens Prog #5..... BioWorks		14 ^{10,13}	4.9 z'g'h'	4.1 z'b'c'	3.8 z'g'-j'	5.0 op	5.0 j-m	5.0 g-i
47 2013 Dollar Spot Greens Prog #6..... BioWorks		14 ^{10,14}	4.7 z'h'	4.0 z'c'	3.3 z'j'	5.0 op	5.0 j-m	5.0 g-i
48 QP Enclave 5.3F.....	3.0 fl oz	-						
+ Foursome 100SL.....	0.4 fl oz	14	6.3 q-z'b'	7.6 a-j	4.8 v-z'f'	6.6 c-e	5.6 e-h	5.1 f-h
49 QP Enclave 5.3F.....	4.0 fl oz	-						
+ Foursome 100SL.....	0.4 fl oz	21	7.8 a-g	7.3 a-n	4.9 u-z'e'	6.5 c-f	5.1 i-l	5.0 g-i

(Continued)

Table 1C. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Turf Quality ^{1,2}				Color ³					
			25 June	23 July	20 Aug.	25 June	23 July	20 Aug.				
50	QP Enclave 5.3F.....	3.0 fl oz	-	-	-	-	-	-	-	-	-	-
	+ QP Foseyl-AI 80WDG	4.0 oz	-	-	-	-	-	-	-	-	-	-
	+ Foursome 100SL	0.4 fl oz	14	7.1 a-o	5.3 p-z'b'	6.3 e-h	6.3 bc	5.3 d-g				
51	QP Enclave 5.3F.....	4.0 fl oz	-	-	-	-	-	-	-	-	-	-
	+ QP Foseyl-AI 80WDG	4.0 oz	-	-	-	-	-	-	-	-	-	-
	+ Foursome 100SL	0.4 fl oz	21	8.0 a-e	4.8 v-z'f	6.3 e-h	5.3 h-k	5.1 f-h				
52	Regalia 5LC	2.0 fl oz	7	5.4 z'c'-h'	4.1 z'e'-j	5.1 n-p	5.0 j-m	5.0 g-i				
53	RU 13118-13ALC.....	4.0 oz	7	4.7 z'h'	3.5 z'j'	5.1 n-p	5.0 j-m	5.0 g-i				
54	RU 13118-13ALC.....	8.0 oz	7	5.6 z'b'-g'	4.1 z'e'-j	4.9 p	4.6 m	5.0 g-i				
55	RU 13118-13B LC.....	2.0 fl oz	-	-	-	-	-	-	-	-	-	-
	+ RU 13118-13A SC.....	4.0 oz	7	5.4 z'd'-h'	3.7 z'h'-j	5.0 op	4.8 lm	5.0 g-i				
56	K-1 LC.....	1.0 fl oz	-	-	-	-	-	-	-	-	-	-
	+ Daconil Ultrex 82.5WDG.....	3.25 oz	14	6.2 t-z'd'	5.0 s-z'e'	5.4 l-o	5.0 j-m	5.0 g-i				
57	K-1 LC.....	1.0 fl oz	-	-	-	-	-	-	-	-	-	-
	+ Daconil Ultrex 82.5WDG.....	2.5 oz	14	6.1 u-z'f'	5.2 q-z'c'	5.4 l-o	5.4 g-j	5.0 g-i				
58	K-1 LC.....	2.0 fl oz	-	-	-	-	-	-	-	-	-	-
	+ Banner Maxx 1.3ME	1.0 fl oz	21	7.2 d-p	4.8 v-z'f'	5.6 j-m	5.6 e-h	5.6 b-d				
59	K-1 LC.....	2.0 fl oz	-	-	-	-	-	-	-	-	-	-
	+ Banner Maxx 1.3ME	0.75 fl oz	21	6.7 k-x	4.5 z'b'-i'	5.3 m-p	5.1 i-l	5.4 c-f				
60	Encartis 6.24SC	3.0 fl oz	14	7.2 d-o	8.6 ab	5.1 n-p	5.0 j-m	5.1 f-h				
61	Encartis 6.24SC	4.0 fl oz	21	7.5 c-k	7.3 c-f	5.1 n-p	5.0 j-m	5.0 g-i				
62	Xzemplar 2.5SC.....	0.21 fl oz	21	7.2 d-p	7.1 d-h	5.0 op	5.0 j-m	4.9 hi				
63	Xzemplar 2.5SC.....	0.26 fl oz	28	6.3 q-z'b'	5.4 o-z'b'	5.0 op	5.0 j-m	4.8 i				
64	Emerald 70WG.....	0.18 oz	28	6.1 u-z'f'	5.5 m-z'a'	5.0 op	5.0 j-m	5.0 g-i				
65	2013 Dollar Spot Greens Prog #7.....	BASF	14 ¹⁵	6.5 o-z	6.4 f-n	5.3 m-p	5.1 i-l	5.1 f-h				
66	2013 Dollar Spot Greens Prog #8.....	BASF	14 ¹⁶	6.5 n-y	6.7 e-l	5.6 j-m	5.0 j-m	5.0 g-i				
67	2013 Dollar Spot Greens Prog #9.....	BASF	14 ¹⁷	6.2 s-z'd'	5.9 k-t	5.4 l-o	5.5 f-i	5.1 f-h				
68	2013 Dollar Spot Greens Prog #10.....	BASF	14 ¹⁸	5.3 z'e'-h'	4.8 v-z'f'	5.4 l-o	5.1 i-l	5.1 f-h				
69	Tourney 50WG.....	0.28 oz	-	-	-	-	-	-	-	-	-	-
	+ S2200 4SC	0.25 fl oz	21	7.1 f-r	6.2 l-y	5.0 op	5.1 i-l	5.1 f-h				

(Continued)

Table 1C. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Turf Quality ^{1,2}			Color ³		
			25 June	23 July	20 Aug.	25 June	23 July	20 Aug.
70 2013 Dollar Spot Greens Prog #11 ... Nufarm		14 ¹⁹	6.2 s-z'c'	6.7 ft	5.0 s-z'e'	5.0 op	5.1 i-l	5.0 g-i
71 2013 Dollar Spot Greens Prog #12 ... Nufarm		14 ²⁰	5.3 z'f-h'	6.5 g-u	5.4 o-z'b'	6.3 e-h	6.3 bc	6.1 a
72 2013 Dollar Spot Greens Prog #13 ... Nufarm		14 ²¹	6.0 v-z'f	7.6 a-k	6.5 f-m	6.5 c-f	6.3 bc	6.3 a
73 Daconil Ultrex 82.5WDG	1.8 oz	-						
+ Insignia Intrinsic 2.1SC	0.7 fl oz	14	6.7 k-x	6.9 c-r	7.1 d-i	5.1 n-p	5.0 j-m	5.0 g-i
74 2013 Dollar Spot Greens Prog #14	-	14 ²²	7.2 d-p	8.3 ab	7.6 b-e	6.9 bc	6.5 ab	5.5 b-e
75 Secure 4.17SC	0.5 fl oz	-						
+ Insignia Intrinsic 2.1SC	0.7 fl oz	14	7.3 c-n	7.1 b-o	8.7 a	5.0 op	5.3 h-k	5.6 bc
76 2013 Dollar Spot Greens Prog #15	-	14 ²³	7.9 a-f	8.5 a	8.7 a	6.8 cd	6.5 ab	5.8 b
77 Daconil Ultrex 82.5WDG	3.25 oz	-						
+ Insignia Intrinsic 2.1SC	0.7 fl oz	21	7.2 d-o	6.7 ft	6.1 i-q	5.3 m-p	5.1 i-l	5.0 g-i
78 2013 Dollar Spot Greens Prog #16	-	21 ²⁴	7.9 a-f	7.3 a-n	5.7 l-v	6.4 d-g	5.8 d-g	5.1 f-h
79 2013 Dollar Spot Greens Prog #17	-	21 ²⁵	8.4 ab	8.5 a	5.8 l-u	6.1 f-i	5.8 d-g	5.4 c-f
80 Secure 4.17SC	0.5 fl oz	-						
+ Insignia Intrinsic 2.1SC	0.7 fl oz	21	7.5 b-j	7.4 a-l	7.2 d-g	5.0 op	5.0 j-m	5.8 b
81 2013 Dollar Spot Greens Prog #18	-	21 ²⁶	8.5 a	7.8 a-g	7.6 b-e	6.3 e-h	5.8 d-g	5.5 b-e
82 2013 Dollar Spot Greens Prog #19	-	21 ²⁷	8.1 a-c	7.3 a-n	7.3 c-f	5.8 i-l	5.4 g-j	5.6 bc
83 Daconil Ultrex 82.5WDG	3.2 oz	14	5.9 w-z'f	6.0 m-z	5.3 p-z'b'	5.4 l-o	5.0 j-m	4.9 hi
84 Emerald 70WG	0.18 oz	21	6.6 m-x	7.3 a-n	7.1d-i	5.1 n-p	5.0 j-m	4.9 hi
85 Emerald 70WG	0.18 oz	28	6.0 v-z'f	5.7 p-z	5.0 s-z'e'	5.0 op	4.8 lm	4.8 i
86 Chipco 26GT 2SC	4.0 fl oz	14	6.1 u-z'f	6.5 g-v	5.3 p-z'b'	5.1 n-p	5.0 j-m	4.9 hi
87 Curalan 50EG	1.0 oz	14	5.6 z'a'-g'	5.7 q-z	4.7 w-z'g'	5.0 op	5.0 j-m	5.1 f-h
88 Secure 4.17SC	0.5 fl oz	14	6.4 o-z'a'	6.7 ft	5.7 l-w	5.1 n-p	5.0 j-m	5.3 d-g
89 Banner Maxx 1.3ME	1.0 fl oz	21	7.9 a-e	6.7 ft	6.3 f-o	5.4 l-o	6.0 c-e	5.8 b
90 Daconil Ultrex 82.5WDG	3.2 oz	14	6.6 k-x	7.1 b-o	5.6 m-y	5.3 m-p	5.0 j-m	5.1 f-h
91 Daconil Ultrex 82.5WDG	3.2 oz	14	6.1 u-z'f	6.2 l-y	4.5 z'a'-h'	5.1 n-p	5.0 j-m	5.0 g-i
92 Daconil Ultrex 82.5WDG	3.2 oz	14	6.5 n-z	6.7 e-t	4.6 z-z'h'	5.3 m-p	5.0 j-m	5.0 g-i
93 Daconil Ultrex 82.5WDG	3.2 oz	14	6.3 r-z'b'	6.1 l-y	4.5 z'b'-i'	5.0 op	5.0 j-m	5.0 g-i
94 Daconil Ultrex 82.5WDG	3.2 oz	14	5.9 v-z'f	6.6 ft	4.8 v-z'f'	5.3 m-p	5.0 j-m	5.0 g-i
95 Daconil Ultrex 82.5WDG	3.2 oz	14	5.9 v-z'f	6.2 l-y	4.6 z-z'h'	5.1 n-p	5.0 j-m	5.0 g-i

(Continued)

Table 1C. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Turf Quality ^{1,2}				Color ³	
			25 June	23 July	20 Aug.	25 June	23 July	20 Aug.
96	Daconil Ultrex 82.5WDG	3.2 oz	6.5 n-z	6.8 e-s	4.7 x-z'g'	5.1 n-p	5.1 i-l	5.0 g-i
97	RU-21196-13B SC	2.66 fl oz	6.6 l-x	7.2 a-o	5.3 p-z'b'	5.1 n-p	5.0 j-m	5.0 g-i
98	Daconil Ultrex 82.5WDG	3.2 oz	6.4 p-z'b'	7.2 a-n	4.6 z-z'h'	5.3 m-p	5.0 j-m	5.0 g-i
99	Daconil Ultrex 82.5WDG	3.2 oz	6.5 o-z	6.6 g-t	4.7 x-z'g'	5.3 m-p	5.0 j-m	5.0 g-i
100	Untreated check.....	-	4.9 z'g'h'	4.3 z'a-c'	3.5 z'i'j'	5.0 op	4.9 k-m	5.0 g-i
101	Untreated check.....	-	4.6 z'h'	4.0 z'c'	3.3 z'j'	5.0 op	5.0 j-m	5.0 g-i

	INT ²⁸	DAT ²⁹	DAT	DAT	DAT	DAT	DAT
	7	7	7	7	7	7	7
	14	14	14	14	14	14	14
	21	7	14	21	7	14	21
	28	28	28	28	28	28	28

¹ Values are means of four replicates. Means followed by the same letter are not significantly different according to Waller-Duncan k-ratio t-test (k=100).

² Turf quality on a scale of 1 to 9, where 9 = best turf quality and 5 = commercially acceptable quality.

³ Color of foliage on a scale of 1 to 10, where 5 = color of healthy untreated turf, less than 5 = progressively more chlorotic/ necrotic turf, and greater than 5 = progressively darker green turf.

⁴ Fungicides were applied on 28 May (all treatments; except treatment 15), 4 June (7-day treatment), 11 June (7- and 14-day treatments), 18 June (7- and 21-day treatments; initiated treatment 15), 25 June (7-, 14-, and 28-day treatments), 2 July (7-day treatment), 9 July (7-, 14-, and 21-day treatments), 16 July (7-day treatment), 23 July (7-, 14-, and 28-day treatments), 30 July (7- and 21-day treatments), 6 August (7- and 14-day treatments), 13 August (7-day treatment), and 20 August (treatments 9G, 10G, 32G, 45, 46, 47, 65A, 66A, 67A, and 68A).

⁵ Treatment 9 (2013 Bayer Dollar Spot Greens Program #1) consisted of Triton Flo 3SC (0.75 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (3.0 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.

(Continued)

Table 1C. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ⁶ Treatment 10 (2013 Bayer Dollar Spot Greens Program #2) consisted of Tartan 2.4SC (1.5 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Tartan 2.4SC (1.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (4.0 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (5.97 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.
- ⁷ Treatment 15 was applied on a curative basis when the number of dollar spot lesion centers exceeded 5 for any replicate plot on 18 June and then was repeated every 21 days until 30 July.
- ⁸ Treatments 17 and 22 were applied once on 28 May.
- ⁹ Treatment 32 (2013 Sipcam Advan \$-Spot Greens Program #3) consisted of Eclipse SC (4.0 fl oz) + Phyte-Off 6F (2.0 fl oz) applied on 28 May, and Echo Dyad ETQ 6F (5.0 fl oz) + Phyte-off 6F (2.0 fl oz) on 11 June, 25 June, 9 July, 23 July, 6 August, and 20 August.
- ¹⁰ Treatments 44 to 47 were irrigated with 0.5 gal of water per plot immediately after the application of BW136N 513G or BW136N 513WP, but not CEASE SC.
- ¹¹ ALT = Alternation treatment, where treatment 44 consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, and BW136N 513WP (2.5 oz) on 25 June.
- ¹² ALT = Alternation treatment, where treatment 45 (2013 Dollar Spot Greens Program #4) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513WP (1.5 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513WP (0.75 oz) on 9 July.
- ¹³ ALT = Alternation treatment, where treatment 46 (2013 Dollar Spot Greens Program #5) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513G (32.0 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513G (32.0 oz) on 9 July.
- ¹⁴ ALT = Alternation treatment, where treatment 47 (2013 Dollar Spot Greens Program #6) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, Cease SC (6.0 fl oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and Cease SC (6.0 fl oz) on 9 July.
- ¹⁵ Treatment 65 (2013 BASF Dollar Spot Greens Program #7) consisted of Lexicon Intrinsic 4.17SC (0.47 fl oz) applied on 28 May, Insignia 2.1SC (0.7 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Insignia 2.1SC (0.7 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁶ Treatment 66 (2013 BASF Dollar Spot Greens Program #8) consisted of Headway 1.39EC (3.0 fl oz) applied on 28 May, Heritage TL 0.8ME (2.0 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Heritage TL 0.8ME (2.0 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁷ Treatment 67 (2013 BASF Dollar Spot Greens Program #9) consisted of Disarm M 3.9SC (1.0 fl oz) applied on 28 May, Disarm 480SC (0.36 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Disarm 480SC (0.36 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.

Table 1C. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ¹⁸ Treatment 68 (2013 BASF Dollar Spot Greens Program #10) consisted of Tartan 2.4SC (2.0 fl oz) applied on 28 May, Compass 50WG (0.25 oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Compass 50WG (0.25 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁹ ALT = Alternation treatment, where treatment 70 (2013 Nufarm Dollar Spot Greens Program #11) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) on 11 June, 9 July, and 6 August.
- ²⁰ ALT = Alternation treatment, where treatment 71 (2013 Nufarm Dollar Spot Greens Program #12) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.092 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.092 oz) on 11 June, 9 July, and 6 August.
- ²¹ ALT = Alternation treatment, where treatment 72 (2013 Nufarm Dollar Spot Greens Program #13) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.18 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.18 oz) on 11 June, 9 July, and 6 August.
- ²² Treatment 74 (2013 Dollar Spot Greens Program #14) consisted of Daconil Ultrex 82.5WDG (1.8 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²³ Treatment 76 (2013 Dollar Spot Greens Program #15) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²⁴ Treatment 78 (2013 Dollar Spot Greens Program #16) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²⁵ Treatment 79 (2013 Dollar Spot Greens Program #17) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁶ Treatment 81 (2013 Dollar Spot Greens Program #18) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²⁷ Treatment 82 (2013 Dollar Spot Greens Program #19) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁸ INT = Spray interval in days.
- ²⁹ DAT = Days after the last treatment.

Table 1D. Influence of fungicides and biorational products on dollar spot development of a creeping bentgrass green, Test 1: Rutgers University, 2013.

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Brown Patch ^{1,2}	Phytotoxicity ³		
				25 June	23 July	20 Aug.
1 RU-21196-13A SC	2.0 fl oz	14	14.8 h-s	1.0 b	1.0 e	1.0 c
2 RU-21196-13A SC	4.0 fl oz	14	8.0 l-w	1.0 b	1.0 e	1.0 c
3 RU-21196-13B SC	5.33 fl oz	14	13.3 i-v	1.0 b	1.0 e	1.0 c
4 RU-21196-13A SC	2.0 fl oz	21	15.0 h-s	1.3 a	1.0 e	1.0 c
5 RU-21196-13B SC	2.66 fl oz	21	18.8 f-o	1.0 b	1.0 e	1.0 c
6 RU-21196-13C SC	1.0 fl oz	14	1.0 u-w	1.0 b	1.0 e	1.0 c
7 RU-21196-13C SC	2.0 fl oz	14	1.3 u-w	1.0 b	1.0 e	1.0 c
8 RU-21196-13C SC	1.0 fl oz	21	9.5 k-w	1.0 b	1.0 e	1.0 c
9 2013 Dollar Spot Greens Prog #1	..... Bayer	14 ⁵	7.5 m-w	1.0 b	1.0 e	1.0 c
10 2013 Dollar Spot Greens Prog #2	..... Bayer	14 ⁶	3.8 r-w	1.0 b	1.0 e	1.0 c
11 RU-2125-123H SC	1.65 fl oz	7	1.3 u-w	1.0 b	1.0 e	1.0 c
12 RU-2125-123H SC	1.65 fl oz	14	13.8 h-u	1.0 b	1.0 e	1.0 c
13 RU-2125-123H SC	3.3 fl oz	14	0.5 v-w	1.0 b	1.0 e	1.0 c
14 RU-2125-123H SC	4.36 fl oz	21	22.5 c-j	1.0 b	1.0 e	1.0 c
15 RU-2125-123H SC	4.36 fl oz	CUR-21 ⁷	29.5 a-g	1.0 b	1.0 e	1.0 c
16 RU-2125-123H SC	6.6 fl oz	28	1.0 u-w	1.0 b	1.0 e	1.0 c
17 RU-2125-123H SC	13.2 fl oz	Once ⁸	20.5 e-l	1.0 b	1.0 e	1.0 c
18 RU-2125-123I SC	1.65 fl oz	7	0.0 w	1.0 b	1.0 e	1.0 c
19 RU-2125-123I SC	3.3 fl oz	14	14.3 h-t	1.0 b	1.0 e	1.0 c
20 RU-2125-123I SC	4.33 fl oz	21	4.8 q-w	1.0 b	1.0 e	1.0 c
21 RU-2125-123I SC	6.6 fl oz	28	0.0 w	1.0 b	1.0 e	1.0 c
22 RU-2125-123I SC	13.13 fl oz	Once ⁸	8.0 l-w	1.0 b	1.0 e	1.0 c
23 Interface 2.27SC	4.0 fl oz	14	0.0 w	1.0 b	1.0 e	1.0 c
24 Honor Intrinsic 28WG	.....0.84 oz	14	0.5 v-w	1.0 b	1.0 e	1.0 c
25 SA-0010236 F	.....10.0 fl oz	14	1.3 u-w	1.0 b	1.0 e	1.0 c
26 Insignia Intrinsic 2.1SC	.....0.7 fl oz	14	0.5 v-w	1.0 b	1.0 e	1.0 c
27 SA-0290101 F	.....0.5 fl oz	14	16.0 h-r	1.0 b	1.0 e	1.0 c
28 SA-0290102 F	.....0.52 fl oz	14	11.3 j-w	1.0 b	1.0 e	1.0 c
29 Echo Dyad ETQ 6F	.....5.0 fl oz	14	0.0 w	1.0 b	1.0 e	1.0 c

(Continued)

Table 1D. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Brown Patch ^{1,2}	Phytotoxicity ³		
				25 June	23 July	20 Aug.
30 SA-0010233 F.....	5.0 fl oz	14	0.0 w	1.0 b	1.2 cd	1.0 c
31 Echo 720 6F.....	3.6 fl oz	14	3.8 f-w	1.0 b	1.0 e	1.0 c
32 2013 Dollar Spot Greens Prog #3..... Sipcam		14 ⁹	1.3 u-w	1.0 b	1.0 e	1.0 c
33 SA-0010235 F.....	7.0 fl oz	14	7.5 m-w	1.0 b	1.0 e	1.0 c
34 HM0736 3.51LC.....	0.321 fl oz	14	36.3 ab	1.0 b	1.0 e	1.0 c
35 Echo 6.1SC.....	3.5 fl oz	14	1.3 u-w	1.0 b	1.0 e	1.0 c
36 HM0736 3.51LC.....	0.321 fl oz	-				
+ Echo 6.1SC.....	3.5 fl oz	14	3.8 f-w	1.0 b	1.0 e	1.0 c
37 Daconil Action 6.1SC.....	3.5 fl oz	14	6.3 o-w	1.0 b	1.2 cd	1.0 c
38 Emerald 70WG.....	0.13 oz	14	30.8 a-f	1.0 b	1.0 e	1.0 c
39 Chipco Signature 80WG.....	4.0 oz	-				
+ Daconil Ultrex 82.5WDG.....	3.2 oz	14	0.0 w	1.0 b	1.0 e	1.0 c
40 Spectro 90WG.....	5.75 oz	14	1.8 t-w	1.0 b	1.0 e	1.0 c
41 RU-229225-13A LC.....	0.25 fl oz	-				
+ RU-229225-13B LC.....	1.28 fl oz	14	18.3 f-p	1.0 b	1.0 e	1.0 c
42 RU-229225-13A LC.....	0.5 fl oz	-				
+ RU-229225-13B LC.....	1.28 fl oz	14	18.0 f-p	1.0 b	1.0 e	1.0 c
43 RU-229225-13A LC.....	1.0 fl oz	-				
+ RU-229225-13B LC.....	1.28 fl oz	14	5.5 p-w	1.0 b	1.0 e	1.0 c
44 BW136N 513G.....	64.0 oz	May 28, July 23				
/ BW136N 513WP.....	2.5 oz	June 25 ^{10,11}	15.0 h-s	1.0 b	1.0 e	1.0 c
45 2013 Dollar Spot Greens Prog #4..BioWorks		14 ^{10,12}	33.5 a-d	1.0 b	1.0 e	1.0 c
46 2013 Dollar Spot Greens Prog #5..BioWorks		14 ^{10,13}	25.0 b-i	1.0 b	1.0 e	1.0 c
47 2013 Dollar Spot Greens Prog #6..BioWorks		14 ^{10,14}	14.3 h-t	1.0 b	1.0 e	1.0 c
48 QP Enclave 5.3F.....	3.0 fl oz	-				
+ Foursome 100SL.....	0.4 fl oz	14	1.3 u-w	1.0 b	1.0 e	1.0 c
49 QP Enclave 5.3F.....	4.0 fl oz	-				
+ Foursome 100SL.....	0.4 fl oz	21	0.0 w	1.0 b	1.0 e	1.0 c

(Continued)

Table 1D. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Brown Patch ^{1,2}	Phytotoxicity ³		
				25 June	23 July	20 Aug.
50	QP Enclave 5.3F..... 3.0 fl oz	-				
	+ QP Foseyl-AI 80WDG 4.0 oz	-				
	+ Foursome 100SL 0.4 fl oz	14	0.0 w	1.0 e	1.0 c	
51	QP Enclave 5.3F..... 4.0 fl oz	-				
	+ QP Foseyl-AI 80WDG 4.0 oz	-				
	+ Foursome 100SL 0.4 fl oz	21	0.0 w	1.0 e	1.0 c	
	+ Foursome 100SL 2.0 fl oz	7	21.3 d-k	1.0 e	1.0 c	
52	Regalia 5LC 4.0 oz	7	23.8 b-j	1.0 e	1.0 c	
53	RU 13118-13ALC 8.0 oz	7	26.3 a-h	1.0 e	1.0 c	
54	RU 13118-13ALC 2.0 fl oz	-				
55	RU 13118-13B LC..... 4.0 oz	7	35.5 ab	1.0 e	1.0 c	
	+ RU 13118-13A SC..... 1.0 fl oz	-				
56	K-1 LC..... 3.25 oz	14	0.0 w	1.0 e	1.0 c	
	+ Daconil Ultrex 82.5WDG..... 1.0 fl oz	-				
57	K-1 LC..... 2.5 oz	14	0.0 w	1.0 e	1.0 c	
	+ Daconil Ultrex 82.5WDG..... 2.0 fl oz	-				
58	K-1 LC..... 1.0 fl oz	21	24.5 b-i	2.0 a	1.4 a	
	+ Banner Maxx 1.3ME 2.0 fl oz	-				
59	K-1 LC..... 0.75 fl oz	21	35.0 a-c	1.6 b	1.4 a	
	+ Banner Maxx 1.3ME 3.0 fl oz	14	6.0 o-w	1.0 e	1.0 c	
60	Encartis 6.24SC 4.0 fl oz	21	33.3 a-e	1.0 e	1.0 c	
61	Encartis 6.24SC 0.21 fl oz	21	11.0 j-w	1.0 e	1.0 c	
62	Xzemplar 2.5SC 0.26 fl oz	28	0.0 w	1.0 e	1.0 c	
63	Xzemplar 2.5SC 0.18 oz	28	20.0 f-m	1.0 e	1.0 c	
64	Emerald 70WG BASF	14 ¹⁵	0.5 vw	1.0 e	1.0 c	
65	2013 Dollar Spot Greens Prog #7..... BASF	14 ¹⁶	2.5 s-w	1.0 e	1.0 c	
66	2013 Dollar Spot Greens Prog #8..... BASF	14 ¹⁷	0.0 w	1.0 e	1.0 c	
67	2013 Dollar Spot Greens Prog #9..... BASF	14 ¹⁸	0.0 w	1.0 e	1.0 c	
68	2013 Dollar Spot Greens Prog #10..... BASF	-				
69	Tourney 50WG 0.28 oz	-				
	+ S2200 4SC 0.25 fl oz	21	4.5 q-w	1.0 b	1.0 c	

(Continued)

Table 1D. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Brown Patch ^{1,2}	Phytotoxicity ³		
				25 June	23 July	20 Aug.
70 2013 Dollar Spot Greens Prog #11 ... Nufarm		14 ¹⁹	0.8 vw	1.0 b	1.0 e	1.0 c
71 2013 Dollar Spot Greens Prog #12 ... Nufarm		14 ²⁰	1.8 t-w	1.0 b	1.0 e	1.0 c
72 2013 Dollar Spot Greens Prog #13 ... Nufarm		14 ²¹	0.0 w	1.0 b	1.2 c	1.0 c
73 Daconil Ultrex 82.5WDG..... 1.8 oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		14	0.0 w	1.0 b	1.0 e	1.0 c
74 2013 Dollar Spot Greens Prog #14.....		14 ²²	0.0 w	1.0 b	1.0 e	1.0 c
75 Secure 4.17SC..... 0.5 fl oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		14	0.0 w	1.0 b	1.0 e	1.0 c
76 2013 Dollar Spot Greens Prog #15.....		14 ²³	0.5 vw	1.0 b	1.0 e	1.0 c
77 Daconil Ultrex 82.5WDG..... 3.25 oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		21	7.5 m-w	1.0 b	1.0 e	1.0 c
78 2013 Dollar Spot Greens Prog #16.....		21 ²⁴	0.0 w	1.0 b	1.0 e	1.0 c
79 2013 Dollar Spot Greens Prog #17.....		21 ²⁵	0.0 w	1.0 b	1.0 e	1.0 c
80 Secure 4.17SC..... 0.5 fl oz		-				
+ Insignia Intrinsic 2.1SC..... 0.7 fl oz		21	0.0 w	1.0 b	1.0 e	1.0 c
81 2013 Dollar Spot Greens Prog #18... 0.5 fl oz		21 ²⁶	0.0 w	1.0 b	1.0 e	1.0 c
82 2013 Dollar Spot Greens Prog #19.....		21 ²⁷	0.0 w	1.0 b	1.0 e	1.0 c
83 Daconil Ultrex 82.5WDG..... 3.2 oz		14	0.0 w	1.0 b	1.0 e	1.0 c
84 Emerald 70WG..... 0.18 oz		21	29.0 a-g	1.0 b	1.0 e	1.0 c
85 Emerald 70WG..... 0.18 oz		28	23.5 b-j	1.0 b	1.0 e	1.0 c
86 Chipco 26GT 2SC..... 4.0 fl oz		14	15.0 h-s	1.0 b	1.0 e	1.0 c
87 Curalan 50EG..... 1.0 oz		14	19.3 f-n	1.0 b	1.0 e	1.0 c
88 Secure 4.17SC..... 0.5 fl oz		14	0.0 w	1.0 b	1.0 e	1.0 c
89 Banner Maxx 1.3ME..... 1.0 fl oz		21	20.5 e-l	1.0 b	1.1 de	1.0 c
90 Daconil Ultrex 82.5WDG..... 3.2 oz		14	2.5 s-w	1.0 b	1.0 e	1.0 c
91 Daconil Ultrex 82.5WDG..... 3.2 oz		14	4.3 q-w	1.0 b	1.0 e	1.0 c
92 Daconil Ultrex 82.5WDG..... 3.2 oz		14	3.8 f-w	1.0 b	1.0 e	1.0 c
93 Daconil Ultrex 82.5WDG..... 3.2 oz		14	7.5 m-w	1.0 b	1.0 e	1.0 c
94 Daconil Ultrex 82.5WDG..... 3.2 oz		14	3.5 f-w	1.0 b	1.0 e	1.0 c
95 Daconil Ultrex 82.5WDG..... 3.2 oz		14	5.5 p-w	1.0 b	1.0 e	1.0 c

(Continued)

Table 1D. Dollar spot development of a creeping bentgrass green, 2013 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Brown Patch ^{1,2}	Phytotoxicity ³		
				25 June	23 July	20 Aug.
96 Daconil Ultrex 82.5WDG	3.2 oz	14	7.0 n-w	1.0 b	1.0 e	1.0 c
97 RU-21196-13B SC	2.66 fl oz	14	17.0 g-q	1.0 b	1.0 e	1.0 c
98 Daconil Ultrex 82.5WDG	3.2 oz	14	5.0 q-w	1.0 b	1.0 e	1.0 c
99 Daconil Ultrex 82.5WDG	3.2 oz	14	5.0 q-w	1.0 b	1.0 e	1.0 c
100 Untreated Check	—	—	33.8 a-d	1.0 b	1.0 e	1.0 c
101 Untreated Check	—	—	38.8 a	1.0 b	1.0 e	1.0 c

	INT ²⁸	DAT ²⁹	DAT	DAT
	7	5	7	7
	14	12	14	14
	21	19	7	14
	28	12	28	28

¹ Values are means of four replicates. Means followed by the same letter are not significantly different according to Waller-Duncan k-ratio t-test (k=100).

² Percent turf area infested with brown patch (*Rhizoctonia solani*).

³ Phytotoxicity on a scale of 1 to 5, where 1 = no discoloration, 2 = slight foliar chlorosis or necrosis, 3 = moderate chlorosis or necrosis, 4 = severe chlorosis or necrosis, and 5 = all turf dead.

⁴ Fungicides were applied on 28 May (all treatments; except treatment 15), 4 June (7-day treatment), 11 June (7- and 14-day treatments), 18 June (7- and 21-day treatments; initiated treatment 15), 25 June (7-, 14-, and 28-day treatments), 2 July (7-day treatment), 9 July (7-, 14-, and 21-day treatments), 16 July (7-day treatment), 23 July (7-, 14-, and 28-day treatments), 30 July (7- and 21-day treatments), 6 August (7- and 14-day treatments), 13 August (7-day treatment), and 20 August (treatments 9G, 10G, 32G, 45, 46, 47, 65A, 66A, 67A, and 68A).

⁵ Treatment 9 (2013 Bayer Dollar Spot Greens Program #1) consisted of Triton Flo 3SC (0.75 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Triton Flo 3SC (0.5 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (3.0 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.

(Continued)

Table 1D. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ⁶ Treatment 10 (2013 Bayer Dollar Spot Greens Program #2) consisted of Tartan 2.4SC (1.5 fl oz) applied on 28 May, Chipco Signature 80WG (4.0 oz) + Tartan 2.4SC (1.5 fl oz) on 11 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (4.0 fl oz) on 9 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Interface 2.27SC (5.97 fl oz) on 6 August, and Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 20 August.
- ⁷ Treatment 15 was applied on a curative basis when the number of dollar spot lesion centers exceeded 5 for any replicate plot on 18 June and then was repeated every 21 days until 30 July.
- ⁸ Treatments 17 and 22 were applied once on 28 May.
- ⁹ Treatment 32 (2013 Sipcam Advan \$-Spot Greens Program #3) consisted of Eclipse SC (4.0 fl oz) + Phyte-Off 6F (2.0 fl oz) applied on 28 May, and Echo Dyad ETQ 6F (5.0 fl oz) + Phyte-off 6F (2.0 fl oz) on 11 June, 25 June, 9 July, 23 July, 6 August, and 20 August.
- ¹⁰ Treatments 44 to 47 were irrigated with 0.5 gal of water per plot immediately after the application of BW136N 513G or BW136N 513WP, but not CEASE SC.
- ¹¹ ALT = Alternation treatment, where treatment 44 consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, and BW136N 513WP (2.5 oz) on 25 June.
- ¹² ALT = Alternation treatment, where treatment 45 (2013 Dollar Spot Greens Program #4) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513WP (1.5 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513WP (0.75 oz) on 9 July.
- ¹³ ALT = Alternation treatment, where treatment 46 (2013 Dollar Spot Greens Program #5) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, BW136N 513G (32.0 oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and BW136N 513G (32.0 oz) on 9 July.
- ¹⁴ ALT = Alternation treatment, where treatment 47 (2013 Dollar Spot Greens Program #6) consisted of BW136N 513G (64.0 oz) applied on 28 May and 23 July, Cease SC (6.0 fl oz) on 11 June and 6 August, BW136N 513G (32.0 oz) on 25 June and 20 August, and Cease SC (6.0 fl oz) on 9 July.
- ¹⁵ Treatment 65 (2013 BASF Dollar Spot Greens Program #7) consisted of Lexicon Intrinsic 4.17SC (0.47 fl oz) applied on 28 May, Insignia 2.1SC (0.7 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Insignia 2.1SC (0.7 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁶ Treatment 66 (2013 BASF Dollar Spot Greens Program #8) consisted of Headway 1.39EC (3.0 fl oz) applied on 28 May, Heritage TL 0.8ME (2.0 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Heritage TL 0.8ME (2.0 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁷ Treatment 67 (2013 BASF Dollar Spot Greens Program #9) consisted of Disarm M 3.9SC (1.0 fl oz) applied on 28 May, Disarm 480SC (0.36 fl oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Disarm 480SC (0.36 fl oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.

Table 1D. Dollar spot development of a creeping bentgrass green, 2013 (continued).

- ¹⁸ Treatment 68 (2013 BASF Dollar Spot Greens Program #10) consisted of Tartan 2.4SC (2.0 fl oz) applied on 28 May, Compass 50WG (0.25 oz) on 11 June, Spectro 90WDG (5.75 oz) on 25 June, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 9 July, Compass 50WG (0.25 oz) on 23 July, Chipco Signature 80WG (4.0 oz) + Daconil Ultrex 82.5WDG (3.2 oz) on 6 August, and Chipco 26GT 2SC (4.0 fl oz) on 20 August.
- ¹⁹ ALT = Alternation treatment, where treatment 70 (2013 Nufarm Dollar Spot Greens Program #11) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) on 11 June, 9 July, and 6 August.
- ²⁰ ALT = Alternation treatment, where treatment 71 (2013 Nufarm Dollar Spot Greens Program #12) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.092 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.092 oz) on 11 June, 9 July, and 6 August.
- ²¹ ALT = Alternation treatment, where treatment 72 (2013 Nufarm Dollar Spot Greens Program #13) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WDG (3.6 oz) + Anuew 27.5WDG (0.18 oz) applied on 28 May, 25 June, and 23 July, and 26/36 3.8F (4.0 fl oz) + Anuew 27.5WDG (0.18 oz) on 11 June, 9 July, and 6 August.
- ²² Treatment 74 (2013 Dollar Spot Greens Program #14) consisted of Daconil Ultrex 82.5WDG (1.8 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²³ Treatment 76 (2013 Dollar Spot Greens Program #15) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (5.65 fl oz) + 4-0-0 LC (3.0 fl oz) applied every 14 days.
- ²⁴ Treatment 78 (2013 Dollar Spot Greens Program #16) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²⁵ Treatment 79 (2013 Dollar Spot Greens Program #17) consisted of Daconil Ultrex 82.5WDG (3.25 oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁶ Treatment 81 (2013 Dollar Spot Greens Program #18) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) applied every 21 days.
- ²⁷ Treatment 82 (2013 Dollar Spot Greens Program #19) consisted of Secure 4.17SC (0.5 fl oz) + Insignia Intrinsic 2.1SC (0.7 fl oz) + N30 LC (7.5 fl oz) + 4-0-0 LC (4.0 fl oz) + Title Phyte LC (3.0 fl oz) applied every 21 days.
- ²⁸ INT = Spray interval in days.
- ²⁹ DAT = Days after the last treatment.