

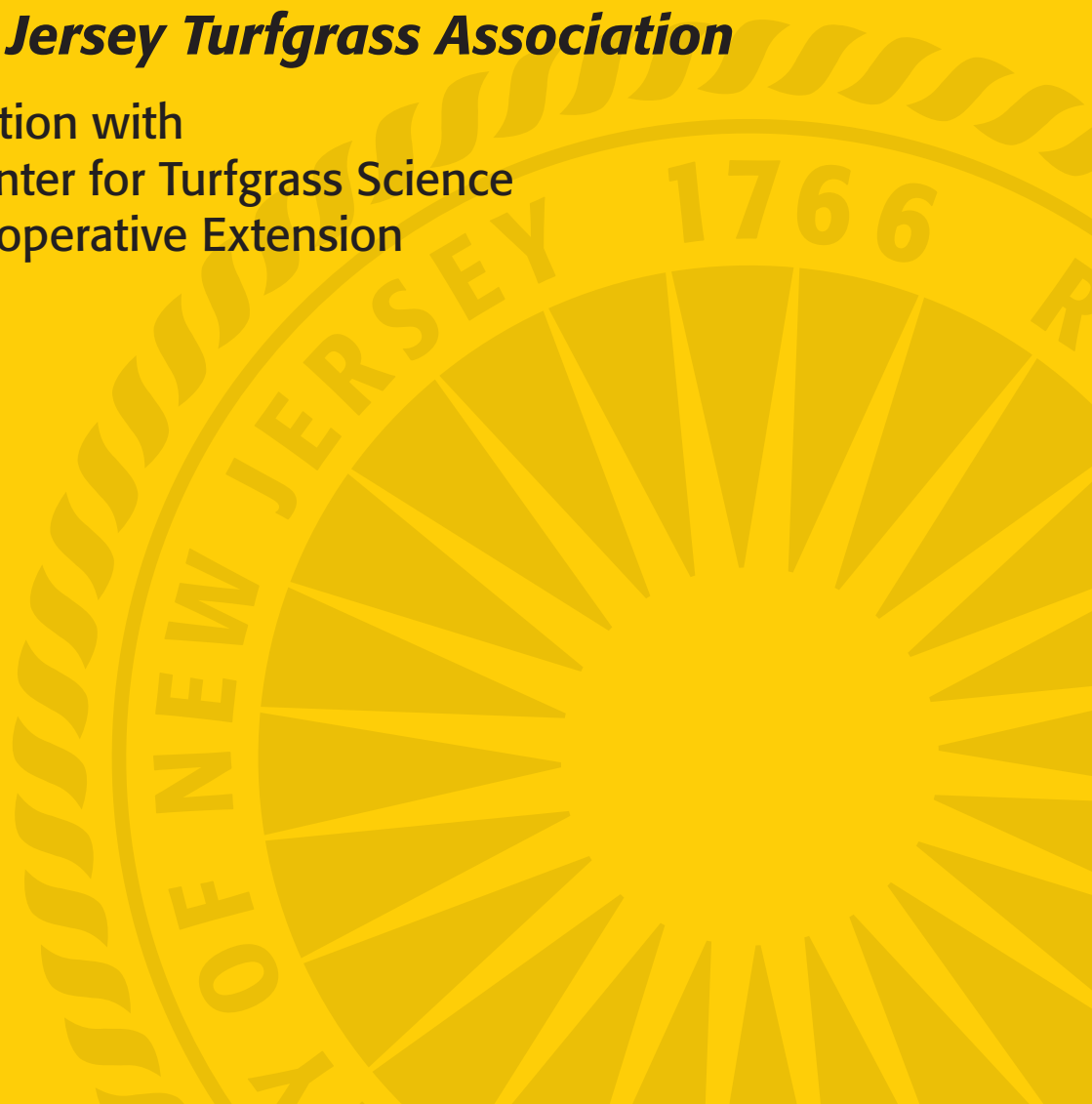
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The Rutgers Turfgrass Proceedings is published yearly by the Rutgers Center for Turfgrass Science, Rutgers Cooperative Extension, and the New Jersey Agricultural Experiment Station, School of Environmental and Biological Sciences, Rutgers, The State 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 2014 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

EVALUATION OF FUNGICIDES AND BIORATIONAL PRODUCTS FOR THE CONTROL OF BROWN PATCH ON COLONIAL BENTGRASS, 2014

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Fungicides and biorational products were evaluated in 2014 for their ability to control brown patch (caused by *Rhizoctonia solani*) on a colonial bentgrass (*Agrostis capillaris*) turf at the Rutgers Turf Research Farm in North Brunswick, NJ. The study was established in September 2005 on a Nixon loam with a pH of 6.3. Mowing was performed three times a week at a height of 0.375 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 26-0-5 (0.9 lb nitrogen (N) per 1000 ft²) on 25 April, 24 September, and 14 November, and as 16-0-8 (0.5 lb N per 1000 ft²) on 20 June. Acclaim Extra (0.08 fl oz per 1000 ft²) was applied for post-emergence crabgrass control on 28 June, and 3 and 30 August. Emerald (0.18 fl oz per 1000 ft²) was applied on 23 June, and 4 and 13 November for dollar spot (*Sclerotinia homoeocarpa*) control, and Daconil Ultrex (5 oz per 1000 ft²) on 18 September for anthracnose (*Colletotrichum cereale*). Talstar GC (0.25 fl oz per 1000 ft²) was applied for sod webworm suppression on 20 August. Fields were aerated on 4 April and 29 September, and TriCure (4 fl oz per 1000 ft²) was applied to prevent localized dry spots on 28 April, 30 May, 20 July, 19 August, 17 September, 15 October, and 11 November.

Products 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 10 June when environmental conditions were conducive to brown patch development. Fungicides were reapplied at the appropriate

intervals as indicated in Tables 1A and 1B. Turf was visually evaluated for percent turf area infested with brown patch on 8, 15, and 25 July, 4, 14, and 24 August, and 4 September. Turf quality was rated on 13 July, 5 August, and 2 September using a 1 to 9 scale, where 9 = best turf quality and 5 = acceptable quality. Color of foliage was rated on 13 July, 5 August, and 2 September on 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. Data were subjected to analysis of variance and means were separated using the Waller-Duncan *k*-ratio *t*-test (*k* = 100).

Brown patch was first observed on 3 July, and became uniform throughout the study by 8 July (Table 1A). Disease severity ranged from 35 to 88% turf area infested with *R. solani* on untreated turf, which was considered a severe level of brown patch infestation (Table 1A). Less than 10% turf area infested per plot represented an acceptable level of disease control. Less than half of the products in the study provided acceptable, season-long control of brown patch; these included Tourney 50WG @ 0.37 oz (trt 2), Tourney 50WG @ 0.28 oz + S2200 WG @ 0.25 oz (trt 3), Tourney 50WG @ 0.37 oz + S2200 WG @ 0.31 oz (trt 4), ARY-0534-002 SC (trt 13), Disarm T SC (trt 14), Affirm 11.3WG (trt 15), Torque 3.6F (trt 16), Torque 3.6F + Spectro 90WG alternated with Affirm 11.3WG (trt 17), 2014 BP Program #10 (trt 18), QP Strobe 50WG + Foursome 100SL (trt 19), Heritage 50WG + Foursome 100SL (trt 20), QP Enclave 5.3F + Foursome 100SL (trt 23), and Heritage 0.8TL (trt 31; Tables 1A and 1B). Six additional products provided good to fair control of brown patch (10 and 20% turf

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area infested per plot) through the end of the season; these included Tourney 50WG alone @ 0.28 oz (trt 1), Daconil Ultrex 82.5WG (trt 12), Prostar 70WG (trt 32), and the experimental material GWN-10337 LC at rates 2.2 fl oz (trt 9), 2.94 fl oz (trt 10), and 3.99 fl oz (trt 11; Tables 1A and 1B).

Turf quality was acceptable (greater than or equal to 5) on all rating dates for all treatments regardless of their disease severity ratings, except for Varnimo WP + KaPre RemeD8 LC (trt 29) and Varnimo WP + KaPre RemeD8 LC + Pennamin Driver-P DF (trt 30; Table 1C). Most treatments exhibited turf color equivalent to or darker green than untreated turf (trt 34) throughout the season. No phytotoxicity was observed in this study.

Table 1A. Evaluation of fungicides and biorational products for the control of brown patch on colonial bentgrass: Rutgers University, 2014.

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Turf Area Infested per Plot ¹			
			8 July	15 July	25 July	4 Aug.
1 Tourney 50WG	0.28 oz	14	0.0 e	0.3 g	7.3 f-i	12.3hi
2 Tourney 50WG	0.37 oz	14	0.0 e	0.5 g	0.0 i	0.8 k
3 Tourney 50WG	0.28 oz	-				
+ S2200 WG	0.25 oz	14	0.0 e	0.5 g	0.5 i	4.0 jk
4 Tourney 50WG	0.37 oz	-				
+ S2200 WG	0.31 oz	14	0.0 e	0.0 g	0.0 i	5.0 i-k
5 S2200 WG	0.31 oz	14	8.8 cd	16.8 d	50.5 c	61.0 cd
6 Secure 4.2SC	0.5 fl oz	14	0.0 e	0.0 g	32.3 d	53.8 d
7 GWN-10337 LC	0.73 fl oz	14	8.8 cd	32.5 c	37.8 d	65.0 bc
8 GWN-10337 LC	1.47 fl oz	14	1.3 e	18.5 d	7.3 f-i	18.3 gh
9 GWN-10337 LC	2.2 fl oz	14	2.5 e	7.5 e	5.5 f-i	13.8 h
10 GWN-10337 LC	2.94 fl oz	14	2.5 e	3.5 e-g	5.3 f-i	12.0 h-j
11 GWN-10337 LC	3.99 fl oz	14	2.5 e	2.8 e-g	4.0 f-i	12.5 hi
12 Daconil Ultrex 82.5WG	3.2 oz	14	3.8 de	5.3 e-g	8.5 e-i	19.5 f-h
13 ARY-0534-002 SC	0.33 fl oz	14	0.0 e	0.0 g	0.3 i	0.3 k
14 Disarm T SC	0.66 fl oz	14	0.0 e	0.0 g	0.3 i	0.3 k
15 Affirm 11.3WG	0.9 oz	14	2.5 e	0.3 g	0.8 i	3.0 k
16 Torque 3.6F	0.75 fl oz	14	2.5 e	1.0 fg	2.0 hi	0.8 k
17 Torque 3.6F	0.75 fl oz	-				
+ Spectro 90WG	3.6 oz	-				
/ Affirm 11.3WG	0.9 oz	14 ³	2.5 e	1.0 fg	0.3 i	0.8 k
2014 BP Program #10	-	ALT-14 ⁴	3.8 de	0.5 g	0.3 i	0.3 k
19 QP Strobe 50WG	0.2 oz	-				
+ Foursome 100SL	0.4 fl oz	14	0.0 e	0.0 g	1.0 i	0.0 k
20 Heritage 50WG	0.2 oz	-				
+ Foursome 100SL	0.4 fl oz	14	0.0 e	0.0 g	2.8 g-i	2.3 k
21 QP Fosetyl-AI 80WG	4.0 oz	-				
+ QP Chlorothalonil 82.5DF	3.23 oz	-				
+ Foursome 100SL	0.4 fl oz	14	5.0 c-e	6.5 ef	16.5 e	32.8 e

(Continued)

Table 1A. Brown patch control on colonial bentgrass, 2014 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Turf Area Infested per Plot ¹			
			8 July	15 July	25 July	4 Aug.
22	Chipco Signature 80WG	4.0 oz	-			
	+ Daconil Ultrex 82.5WG	3.23 oz	14	1.5 fg	16.5 e	25.8 e-g
23	QP Enclave 5.3F	3.0 fl oz	-			
	+ Foursome 100SL	0.4 fl oz	14	1.5 fg	4.0 f-i	0.8 k
24	Daconil Ultrex 82.5WG	3.2 oz	14	2.5 e-g	10.8 e-h	24.3 fg
25	Daconil Ultrex 82.5WG	3.2 oz	14	2.8 e-g	7.8 e-i	18.5 gh
26	Daconil Ultrex 82.5WG	3.2 oz	14	3.3 e-g	11.0 e-g	23.0 fg
27	Daconil Ultrex 82.5WG	3.2 oz	14	4.5 e-g	11.8 ef	22.0 fg
28	Daconil Ultrex 82.5WG	3.2 oz	14	3.3 e-g	10.3 e-h	18.8 gh
29	Varnimo WP	0.735 oz	-			
	+ KaPre Remed8 LC	3.0 fl oz	VAR ⁵	60.0 b	62.3 b	69.8 b
30	Varnimo WP	0.735 oz	-			
	+ KaPre Remed8 LC	3.0 fl oz	VAR ⁵	60.0 b	53.8 bc	56.8 d
	+ Pennamin Driver-P DF	1.5 oz	14	0.3 g	0.5 i	1.8 k
31	Heritage 0.8TL	1.0 fl oz	14	0.0 g	1.3 i	2.3 k
32	Prostar 70WG	2.2 oz	14	16.5 d	29.0 d	27.0 ef
33	Chipco 26GT 2SC	4.0 fl oz	14	81.3 a	75.5 a	81.5 a
34	Untreated Check	-	-			
			INT ⁶	DAT ⁷	DAT	DAT
			7	14	-	-
			14	14	3	13

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 10 June (all treatments), 17 June (7-day treatments 29 and 30), 24 June (14-day treatment; 7-day treatments 29 and 30), 8 and 22 July (14-day treatment), and 5 and 19 August (14-day treatment).

(Continued)

Table 1A. Brown patch control on colonial bentgrass, 2014 (continued).

³ ALT = Alternation treatment where treatment 17 (2014 Brown Patch Program #9) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WG (3.6 oz) applied on 10 June, 8 July, and 5 August, and Affirm 11.3WG (0.9 oz) on 24 June, 22 July, and 19 August.

⁴ ALT = Alternation treatment, where treatment 18 (2014 Brown Patch Program #10) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WG (3.6 oz) + Anuew 27.5WG (0.183 oz) applied on 10 June, 8 July, and 5 August, and Affirm 11.3WG (0.9 oz) + Anuew 27.5WG (0.183 oz) on 24 June, 22 July, and 19 August.

⁵ Treatments 29 and 30 were applied on 10, 17, and 24 June, and then every 14 days thereafter. The plots were irrigated with 0.5 gal of H₂O per plot immediately after application.

⁶ INT = Spray interval in days.

⁷ DAT = Days after the last treatment.

Table 1B. Evaluation of fungicides and biorational products for the control of brown patch on colonial bentgrass: Rutgers University, 2014.

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Turf Area Infested per Plot (%) ¹		
			14 Aug.	24 Aug.	4 Sept.
1 Tourney 50WG	0.28 oz	14	10.3 e-h	5.0 k-o	0.3 jk
2 Tourney 50WG	0.37 oz	14	5.3 g-j	4.0 l-o	0.0 k
3 Tourney 50WG	0.28 oz	-			
+ S2200 WG	0.25 oz	14	1.5 j	2.8 no	1.0 jk
4 Tourney 50WG	0.37 oz	-			
+ S2200 WG	0.31 oz	14	4.3 g-j	3.8 l-o	0.5 jk
5 S2200 WG	0.31 oz	14	60.0 b	41.5 d	48.0 c
6 Secure 4.2SC	0.5 fl oz	14	21.0 d	23.5 f	45.5 c
7 GWN-10337 LC	0.73 fl oz	14	57.8 b	54.5 c	30.8 de
8 GWN-10337 LC	1.47 fl oz	14	13.8 d-f	13.0 gh	22.0 fg
9 GWN-10337 LC	2.2 fl oz	14	9.8 e-i	9.8 g-m	4.5 i-k
10 GWN-10337 LC	2.94 fl oz	14	2.3 h-j	6.5 h-o	2.5 jk
11 GWN-10337 LC	3.99 fl oz	14	10.3 e-h	12.0 g-j	8.3 h-j
12 Daconil Ultrex 82.5WG	3.2 oz	14	14.3 d-f	10.3 g-l	1.5 jk
13 ARY-0534-002 SC	0.33 fl oz	14	1.0 j	3.3 m-o	1.0 jk
14 Disarm T SC	0.66 fl oz	14	0.0 j	0.3 o	0.8 jk
15 Affirm 11.3WG	0.9 oz	14	2.0 ij	2.0 no	1.0 jk
16 Torque 3.6F	0.75 fl oz	14	1.3 j	5.5 j-o	1.0 jk
17 Torque 3.6F	0.75 fl oz	-			
+ Spectro 90WG	3.6 oz	-			
/ Affirm 11.3WG	0.9 oz	14 ³	0.0 j	0.3 o	0.0 k
2014 BP Program #10	-	ALT-14 ⁴	0.3 j	0.8 no	0.0 k
19 QP Strobe 50WG	0.2 oz	-			
+ Foursome 100SL	0.4 fl oz	14	5.0 g-j	6.0 i-o	4.5 i-k
20 Heritage 50WG	0.2 oz	-			
+ Foursome 100SL	0.4 fl oz	14	6.5 f-j	7.5 h-n	7.0 i-k
21 QP Fosetyl-AI 80WG	4.0 oz	-			
+ QP Chlorothalonil 82.5DF	3.23 oz	-			
+ Foursome 100SL	0.4 fl oz	14	20.5 d	14.5 g	23.3 e-g

(Continued)

Table 1B. Brown patch control on colonial bentgrass, 2014 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ²	Turf Area Infested per Plot (%) ¹		
			14 Aug.	24 Aug.	4 Sept.
22	Chipco Signature 80WG	4.0 oz	–		
	+ Daconil Ultrex 82.5WG	3.23 oz	14	0.5 o	0.0 k
23	QP Enclave 5.3F	3.0 fl oz	–		
	+ Foursome 100SL	0.4 fl oz	14	2.0 no	0.5 jk
24	Daconil Ultrex 82.5WG	3.2 oz	14	17.8 de	16.0 gh
25	Daconil Ultrex 82.5WG	3.2 oz	14	14.3 d-f	0.0 k
26	Daconil Ultrex 82.5WG	3.2 oz	14	17.5 de	12.3 hi
27	Daconil Ultrex 82.5WG	3.2 oz	14	12.0 e-g	1.0 jk
28	Daconil Ultrex 82.5WG	3.2 oz	14	14.0 d-f	0.0 k
29	Varnimo WP	0.735 oz	–		
	+ KaPre Remed8 LC	3.0 fl oz	VAR ⁵	62.5 b	62.0 b
30	Varnimo WP	0.735 oz	–		
	+ KaPre Remed8 LC	3.0 fl oz	VAR ⁵	47.5 d	36.5 d
	+ Pennamin Driver-P DF	1.5 oz	14	0.8 j	2.5 jk
31	Heritage 0.8TL	1.0 fl oz	14	4.0 g-j	3.3 jk
32	Prostar 70WG	2.2 oz	14	17.8 de	25.3 ef
33	Chipco 26GT 2SC	4.0 fl oz	14	88.0 a	84.5 a
34	Untreated Check	–	–		
			INT ⁶	DAT ⁷	DAT
			7	–	–
			14	9	16

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 10 June (all treatments), 17 June (7-day treatments 29 and 30), 24 June (14-day treatment; 7-day treatments 29 and 30), 8 and 22 July (14-day treatment), and 5 and 19 August (14-day treatment).

(Continued)

Table 1B. Brown patch control on colonial bentgrass, 2014 (continued).

³ ALT = Alternation treatment where treatment 17 (2014 Brown Patch Program #9) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WG (3.6 oz) applied on 10 June, 8 July, and 5 August, and Affirm 11.3WG (0.9 oz) on 24 June, 22 July, and 19 August.

⁴ ALT = Alternation treatment, where treatment 18 (2014 Brown Patch Program #10) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WG (3.6 oz) + Anuew 27.5WG (0.183 oz) applied on 10 June, 8 July, and 5 August, and Affirm 11.3WG (0.9 oz) + Anuew 27.5WG (0.183 oz) on 24 June, 22 July, and 19 August.

⁵ Treatments 29 and 30 were applied on 10, 17, and 24 June, and then every 14 days thereafter. The plots were irrigated with 0.5 gal of H₂O per plot immediately after application.

⁶ INT = Spray interval in days.

⁷ DAT = Days after the last treatment.

Table 1C. Evaluation of fungicides and biorational products for the control of brown patch on colonial bentgrass: Rutgers University, 2014.

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Turf Quality ^{1,2}			Color ³			
			13 July	5 Aug.	2 Sept.	13 July	5 Aug.	2 Sept.	
1	Tourney 50WG	0.28 oz	14	8.4 a-e	7.9 a-f	8.2 a-c	5.0 g	5.0 e	5.0 e
2	Tourney 50WG	0.37 oz	14	8.4 a-e	8.2 a-e	8.3 ab	5.0 g	5.0 e	5.0 e
3	Tourney 50WG	0.28 oz	-						
	+ S2200 WG	0.25 oz	14	8.4 a-d	8.5 a-d	8.0 a-d	5.0 g	5.0 e	5.0 e
4	Tourney 50WG	0.37 oz	-						
	+ S2200 WG	0.31 oz	14	8.3 a-f	8.6 ab	8.0 a-d	5.0 g	5.3 de	5.0 e
5	S2200 WG	0.31 oz	14	7.9 b-g	5.8 j-l	5.8 g-j	5.1 fg	5.1 de	5.1 de
6	Secure 4.2SC.....	0.5 fl oz	14	8.8 ab	5.7 j-l	5.6 h-j	5.0 g	5.0 e	5.0 e
7	GWN-10337 LC	0.73 fl oz	14	7.0 g	5.4 k-m	5.8 g-j	5.0 g	5.0 e	5.0 e
8	GWN-10337 LC	1.47 fl oz	14	7.5 d-g	7.1 e-i	6.6 d-h	5.0 g	5.1 de	5.0 e
9	GWN-10337 LC	2.2 fl oz	14	7.7 c-g	7.3 c-i	7.1 b-g	5.0 g	5.1 de	5.3 cd
10	GWN-10337 LC	2.94 fl oz	14	8.4 a-e	7.3 d-i	7.9 a-d	5.1 fg	5.1 de	5.3 cd
11	GWN-10337 LC	3.99 fl oz	14	8.2 a-f	7.6 a-h	7.5 a-f	5.3 fg	5.0 e	5.5 b
12	Daconil Ultrex 82.5WG	3.2 oz	14	7.4 e-g	6.4 h-k	7.9 a-d	5.0 g	5.1 de	5.0 e
13	ARY-0534-002 SC.....	0.33 fl oz	14	8.9 ab	8.5 a-c	7.3 a-f	5.4 ef	5.0 e	5.0 e
14	Disarm T SC.....	0.66 fl oz	14	8.5 a-c	8.8 a	8.7 a	5.1 fg	5.4 cd	5.0 e
15	Affirm 11.3WG.....	0.9 oz	14	7.9 a-g	7.7 a-g	6.8 c-h	5.1 fg	5.3 de	5.0 e
16	Torque 3.6F.....	0.75 fl oz	14	8.0 a-g	8.2 a-e	8.4 ab	5.3 fg	5.1 de	5.0 e
17	Torque 3.6F.....	0.75 fl oz	-						
	+ Spectro 90WG	3.6 oz	-						
	/Affirm 11.3WG	0.9 oz	14 ⁵	8.1 a-f	7.8 a-f	7.7 a-e	5.3 fg	5.3 de	5.0 e
18	2014 BP Program #10	-	ALT-14 ⁶	7.5 d-g	8.2 a-e	6.4 e-h	6.6 a	6.6 a	6.1 a
19	QP Strobe 50WG	0.2 oz	-						
	+ Foursome 100SL	0.4 fl oz	14	8.1 a-f	7.9 a-f	7.3 b-f	5.9 b-d	5.6 c	5.3 cd
20	Heritage 50WG	0.2 oz	-						
	+ Foursome 100SL	0.4 fl oz	14	8.6 a-c	7.2 e-i	6.1 f-i	6.1 b	6.0 b	5.0 e
21	QP Fosetyl-AI 80WG.....	4.0 oz	-						
	+ QP Chlorothalonil 82.5DF	3.23 oz	-						
	+ Foursome 100SL	0.4 fl oz	14	7.7 c-g	7.7 a-g	6.2 f-h	5.6 de	6.0 b	5.1 de

(Continued)

Table 1C. Brown patch control on colonial bentgrass, 2014 (continued).

Treatment	Rate per 1000 sq ft	Application Schedule (days) ⁴	Turf Quality ^{1,2}			Color ³		
			13 July	5 Aug.	2 Sept.	13 July	5 Aug.	2 Sept.
22	Chipco Signature 80WG	4.0 oz	–	–	–	–	–	–
	+ Daconil Ultrex 82.5WG	3.23 oz	14	14	14	13 July	5 Aug.	2 Sept.
23	QP Enclave 5.3F	3.0 fl oz	–	–	–	–	–	–
	+ Foursome 100SL	0.4 fl oz	14	14	14	13 July	5 Aug.	2 Sept.
24	Daconil Ultrex 82.5WG	3.2 oz	14	14	14	13 July	5 Aug.	2 Sept.
25	Daconil Ultrex 82.5WG	3.2 oz	14	14	14	13 July	5 Aug.	2 Sept.
26	Daconil Ultrex 82.5WG	3.2 oz	14	14	14	13 July	5 Aug.	2 Sept.
27	Daconil Ultrex 82.5WG	3.2 oz	14	14	14	13 July	5 Aug.	2 Sept.
28	Daconil Ultrex 82.5WG	3.2 oz	14	14	14	13 July	5 Aug.	2 Sept.
29	Varnimo WP	0.735 oz	–	–	–	–	–	–
	+ KaPre Remede8 LC	3.0 fl oz	VAR ⁷	VAR ⁷	VAR ⁷	13 July	5 Aug.	2 Sept.
30	Varnimo WP	0.735 oz	–	–	–	–	–	–
	+ KaPre Remede8 LC	3.0 fl oz	–	–	–	–	–	–
	+ Pennamin Driver-P DF	1.5 oz	VAR ⁷	VAR ⁷	VAR ⁷	13 July	5 Aug.	2 Sept.
31	Heritage 0.8TL	1.0 fl oz	14	14	14	13 July	5 Aug.	2 Sept.
32	Prostar 70WG	2.2 oz	14	14	14	13 July	5 Aug.	2 Sept.
33	Chipco 26GT 2SC	4.0 fl oz	14	14	14	13 July	5 Aug.	2 Sept.
34	Untreated Check	–	–	–	–	–	–	–
			INT ⁸	DAT ⁹	DAT	DAT	DAT	DAT
			7	–	–	–	–	–
			14	5	14	5	14	14

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 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.

(Continued)

Table 1C. Brown patch control on colonial bentgrass, 2014 (continued).

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- ⁴ Fungicides were applied on 10 June (all treatments), 17 June (7-day treatments 29 and 30), 24 June (14-day treatment; 7-day treatments 29 and 30), 8 and 22 July (14-day treatment), and 5 and 19 August (14-day treatment).
- ⁵ ALT = Alternation treatment where treatment 17 (2014 Brown Patch Program #9) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WG (3.6 oz) applied on 10 June, 8 July, and 5 August, and Affirm 11.3WG (0.9 oz) on 24 June, 22 July, and 19 August.
- ⁶ ALT = Alternation treatment, where treatment 18 (2014 Brown Patch Program #10) consisted of Torque 3.6F (0.75 fl oz) + Spectro 90WG (3.6 oz) + Anuew 27.5WG (0.183 oz) applied on 10 June, 8 July, and 5 August, and Affirm 11.3WG (0.9 oz) + Anuew 27.5WG (0.183 oz) on 24 June, 22 July, and 19 August.
- ⁷ Treatments 29 and 30 were applied on 10, 17, and 24 June, and then every 14 days thereafter. The plots were irrigated with 0.5 gal of H₂O per plot immediately after application.
- ⁸ INT = Spray interval in days.
- ⁹ DAT = Days after the last treatment.