

## Evaluation of Fungicides for Control of Brown Patch in Creeping Bentgrass - 1996

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Trials were conducted at Veenker Memorial Golf Course on the campus of Iowa State University. Fungicides were applied to creeping bentgrass maintained at 5/32-inch cutting height, using a modified bicycle sprayer at 30 psi and a dilution rate of 5 gal/1000 ft<sup>2</sup>. The experimental design was a randomized complete block with four replications. All plots measured 4 ft x 5 ft. All plots were surrounded by 1-ft-wide strips of untreated turf in order to help create uniform disease pressure.

Fungicide applications began on June 12. Subsequent applications were made at specified intervals on June 25 and July 3, 10, and 24.

Brown patch symptoms were first observed on June 22. Disease development, expressed as percent diseased area per plot, increased gradually in the untreated check during July, becoming moderate by the end of the month. Because of plot-to-plot variability, no fungicide treatments exhibited significantly (LSD,  $P \leq 0.05$ ) more or less disease than the untreated check. However, significant differences among various sprayed treatments were observed on each rating date. No phytotoxicity symptoms were observed during the trial.

**Table 1.** 1996 Brown Patch Trial, Veenker Memorial Golf Course, Iowa State University

Trt#	Company	Product	Rate per 1000 ft <sup>2</sup>	Interval (days)	Diseased area (% of plot)			
					6/22	7/10	7/16	7/30
1	none	untreated check			5.0	5.5	10.5	16.3
2	AgrEvo	ProStar 50 WP	3 oz	21	0.5	3.0	7.8	8.8
3	AgrEvo	ProStar Plus 50 WP (pkg w/Bayleton 50 WP)	2.5 oz	28	8.0	6.0	5.3	10.0
4	AmVac	Amv 41 F	2 fl oz	14	4.0	1.5	11.0	11.3
5	AmVac	Amv 41 F	4 fl oz	14	2.0	2.5	14.5	18.8
6	AmVac	Amv 53 WDG	2 oz	14	3.0	1.3	8.8	12.5
7	AmVac	Amv 53 WDG	4 oz	14	3.5	5.5	14	23.8
8	AmVac	ParFlo 6 F	3 fl oz	14	0.8	1.8	1.3	12.0
9	Zeneca	Heritage 50 WDG	0.2 oz	14	0.8	1.8	1.3	12.0
10	Zeneca	Heritage 50 WDG	0.3 oz	21	2.5	2.0	6.3	11.3
11	Zeneca	Heritage 50 WDG	0.4 oz	28	2.5	1.8	5.0	12.5
12	Rhone-Poulenc	EXP 10715A 80 WG + Dithane 75 WG (Dithane DF)	4 oz 8 oz	14	1.8	7.8	5.8	12.5
13	Rhone-Poulenc	EXP 10715A 80 WG + Dithane 75 WG (Dithane DF)	8 oz 8 oz	14	0.8	2.8	6.5	11.3
14	Rhone-Poulenc	EXP 10704A 80 WP + Dithane 75 WG (Dithane DF)	4 oz 4 oz	14	3.3	3.3	3.0	6.3

Trt#	Company	Product	Rate per 1000 ft <sup>2</sup>	Interval (days)	Diseased area (% of plot)			
					6/22	7/10	7/16	7/30
15	Rhone-Poulenc	EXP 10715A 80 WG	8 oz	14	2.3	2.5	10	15.5
16	Rhone-Poulenc	Chipco Aliette 80 WDG	4 oz	14	1.0	7.8	9.5	8.3
		+ Fore 50 WP	8 oz					
17	Rhone-Poulenc	Chipco 26019 FLO	3 fl oz	14	1.3	1.3	3.0	11.3
18	Rhone-Poulenc	Chipco 26019 FLO	4 fl oz	14	0.3	1.0	6.5	22.5
19	Rhone-Poulenc	Chipco 26019 WDG	1.5 oz	14	1.8	2.5	14.5	20
20	Rhone-Poulenc	Chipco 26019 WDG	2.0 oz	14	1.0	4.5	5.3	17.5
21	Terra	Thalonil 90 DF	3.5 oz	14	1.5	2.3	6.8	7.5
22	Terra	Thalonil 4 L	6 fl oz	14	2.0	1.0	3.3	7.5
23	Terra	TRA 0106 (Thalonil 6)+C48	4 fl oz	14	0.5	3.0	3.0	6.3
24	Bayer	Lynx 25 DF	1 oz	21	1.3	5.5	9.5	21.3
25	Bayer	Lynx 250 EW	28.4 ml	21	2.5	5.5	9.5	21.3
26	Bayer	Bayleton 25 DF	1 oz	21	1.8	3.8	6.8	6.3
		(Bayleton 25% T/O)						
27	ISK Biotech	Daconil Ultrex	3.8 oz	14	3.5	2.8	4.3	7.5
28	ISK Biotech	Daconil Weather Stik	4.1 fl oz	14	1.0	2.5	5.0	11.3
29	ISK Biotech	Daconil Zn (Bravo Zn)	6.0 fl oz	14	2.0	7.8	9.0	22.5
30	ISK Biotech	IB 11522	4.0 oz	14	0.3	3.0	5.3	11.3
31	ISK Biotech	IB 12231	4.7 oz	14	2.3	10	10.8	18.8
32	ISK Biotech	Daconil Ultrex	3.8 oz	14	1.5	4.5	6.0	7.5
		+ Aliette 80 WDG	4.0 oz					
33	ISK Biotech	Daconil Zn	6.0 fl oz	14	0.3	2.5	8.5	11.3
		+ Aliette 80 WDG	4.0 oz					
34	ISK Biotech	Daconil Ultrex	3.8 oz	14	1.3	3.8	7.8	13.8
		+ IB 10813	0.5% v/v					
35	Rohm & Haas	Eagle (RH 3866 40 WP)	0.6 oz	14	0.8	2.0	2.8	8.8
		+ Fore	6.0 oz					
36	Rohm & Haas	Fore	6.0 oz	21	0.3	1.3	3.7	5.0
		+ Prostar 50 WP	2.0 oz					
37	Rohm & Haas	Eagle (RH 3866 40 WP)	0.6 oz	21	0.8	4.0	11.5	13.8
38	Rohm & Haas	Eagle (RH 3866 40 WP)	1.2 oz	28	8.5	4.3	4.0	13.8
		MSE <sup>1</sup>			14.6	19.8	49.2	141.2
		LSD <sup>2</sup>			5.4	6.2	9.8	16.6

<sup>1</sup>Mean square error. df = 111 on 6/22 and 7/10, df = 110 on 7/16 and 7/30. n = 4.

<sup>2</sup>Least significant difference. P ≤ 0.05.

