Evaluation of Chemical Methods for Control of Brown Patch

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INTRODUCTION

To evaluate chemicals for the control of Brown Patch caused by *Rhizoctonia solani* and *R. zeae* on Colonial Bentgrass maintained under golf course fairway management conditions.

EXPERIMENTAL METHODS

This evaluation was conducted on colonial bentgrass maintained under golf course fairway management conditions, at 0.50-inch cutting height. Individual plots, 3 ft x 8 ft, were arranged in a randomized complete block design with three replications. The experimental area was inoculated on July 11, 2000. Treatments were applied with a CO_2-powered boom sprayer, using XR Teejet 8005 VS nozzles, at 30 psi, in water equivalent to 2 gal per 1000 sq ft. All applications were initiated on June 6, 2000 and reapplied on regular intervals. Percent infection ratings were taken on August 14, 2000. The experimental area received 4.5 lbs. of nitrogen during the growing season from the following applications: 1/2# N (46-0-0) on April 24 and May 25, 1.5# N (Spring Valley 25-3-4) on June 19 and 1# N (46-0-0) on both July 8 and 28. Data obtained was subjected to analysis of variance and LSD was used to determine significant differences between treatment means.

DISCUSSION

The weather this past summer was not ideal for extensive outbreaks of brown patch. As a result only one rating was obtained and this was achieved by artificially adjusting the environment (temperature and leaf wettness). All of the treatments provided significant amounts of control, with the Heritage and Heritage plus Banner Maxx treatments providing 100% control.

Table 1. Percent Brown Patch Infection

#	Treatment	Form.	Rate	Rate Unit	Interval/	% Infection 8-14-00	
1	Compass	50WG	0.15	oz/1000 ft2	14 Day	6.7	B
2	Compass	50WG	0.15	oz/1000 ft2	21 Day	1.7	BC
3	Heritage	50 WG	0.2	oz/1000 ft2	14 Day	1.7	BC
	Banner Maxx	1.24 MC	1.0	fl oz/1000 ft2	14 Day		
4	Heritage	50 WG	0.2	oz/1000 ft2	21 Day	0.0	C
	Banner Maxx	1.24 MC	1.0	fl oz/1000 ft2	21 Day		
5	Heritage	50 WG	0.2	oz/1000 ft2	14 Day	0.0	C
6	Heritage	50 WG	0.4	oz/1000 ft2	28 Day	0.0	C
7	Daconil Ultrex	82.5 WG	2.5	oz/1000 ft2	21 Day	6.7	B
	Fungo Flo	4.5 F	0.25	fl oz/1000 ft2			
	Chipco 26 GT	2 SC	2.0	fl oz/1000 ft2			
8	Daconil Ultrex	82.5 WG	2.5	oz/1000 ft2	21 Day	1.7	BC
	Chipco 26 GT	2 SC	2.0	fl oz/1000 ft2			
	Bayleton	25 DF	0.11	oz/1000 ft2			
9	Daconil Ultrex	82.5 WG	2.5	oz/1000 ft2	21 Day	5.0	BC
	Chipco 26 GT	2 SC	2.0	fl oz/1000 ft2			
	Banner Maxx	1.3 MC	0.22	fl oz/1000 ft2			
10	Daconil Ultrex	82.5 WG	2.5	oz/1000 ft2	21 Day	6.7	B
	Chipco 26 GT	2 SC	2.0	fl oz/1000 ft2			
	Rubigan	1 SC	0.5	fl oz/1000 ft2			
11	Daconil Ultrex	82.5 WG	2.5	oz/1000 ft2	21 Day	3.3	BC
	Fungo Flo	4.5 F	0.25	fl oz/1000 ft2			
	Bayleton	25 DF	0.11	oz/1000 ft2			
12	Daconil Ultrex	82.5 WG	2.5	oz/1000 ft2	21 Day	3.3	BC
	Fungo Flo	4.5 F	0.25	fl oz/1000 ft2			
	Banner Maxx	1.3 MC	0.22	fl oz/1000 ft2			
13	Daconil Ultrex	82.5 WG	2.5	oz/1000 ft2	21 Day	6.7	B
	Fungo Flo	4.5 F	0.25	fl oz/1000 ft2			
	Rubigan	1 SC	0.5	fl oz/1000 ft2			
14	Chipco 26 GT	2 SC	2.0	fl oz/1000 ft2	21 Day	3.3	BC
	Fungo Flo	4.5 F	0.25	fl oz/1000 ft2			
	Bayleton	25 DF	0.11	oz/1000 ft2			
15	Chipco 26 GT	2 SC	2.0	fl oz/1000 ft2	21 Day	6.7	B
	Fungo Flo	4.5 F	0.25	fl oz/1000 ft2			
	Banner Maxx	1.3 MC	0.22	fl oz/1000 ft2			
16	Chipco 26 GT	2 SC	2.0	fl oz/1000 ft2	21 Day	5.0	BC
	Fungo Flo	4.5 F	0.25	fl oz/1000 ft2			
	Rubigan	1 SC	0.5	fl oz/1000 ft2			
17	Prostar	70 WP	1.5	oz/1000 ft2	21 day	1.7	BC
18	Prostar	70 WP	2.2	oz/1000 ft2	21 day	5.0	BC
19	Daconil Ultrex	82.5 WG	2.0	oz/1000 ft2	14 Day	5.0	BC
20	Check					18.3	A
LSD (P=0.05)						6.17	

Means followed by same letter do not significantly differ (p=0.05), LSD