2000 Dollar Spot Control Evaluation (Green)

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PURPOSE

To evaluate chemicals for the control of dollar spot on creeping bentgrass (*Agrostis palustris 'Penncross')* caused by the pathogen *Sclerotinia homoeocarpa.*

EXPERIMENTAL METHODS

This evaluation was conducted at the O. J. Noer Turfgrass Research and Education Facility on creeping bentgrass maintained under golf course green management conditions, at 0.125-inch cutting height. Individual plots, 3 ft x 10 ft, were arranged in a randomized complete block design with three replications. The experimental area was inoculated on July 13, 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 3, 2000 and followed their respective spray schedule listed below. The final application was applied on August 6, 2000. The area received 3 pounds of nitrogen from Feed Grade Urea (46-0-0) during the growing season. One pound applications were applied on both April 24 and May 25, 2000. Two 1/2# applications were made on July 8 and July 25, 2000. Percent infection was rated on July 10, 29, August 15, and September 8, 2000. Data obtained was subjected to analysis of variance and LSD was used to determine significant differences between treatment means.

RESULTS

A majority of the treatments have provided excellent control of dollar spot on bentgrass maintained under green conditions. All of the reduced-rate mixtures have provided 100 percent control, except for the last rating date, which was a month after the last application. In evaluation of the data all of the components need their rates adjusted. Each component should be providing around 33% control at their reduced-rates. At their current rates Daconil Ultrex and Bayleton provide around 70% control. The rates of Banner Maxx, Chipco Triton, Chipco 26 GT, and Cleary's 3336 are providing near 100% control and would defeat the purpose of reduced rate mixtures. These rates will be adjusted in the future to find a rate that will provide around 1/3 control.

Several chlorothalonil-based fungicides were evaluated and no difference was noted. The DMI chemistries were also evaluated and increased efficacies with repeat applications. It should also be noted on the final rating, which was taken 4-6 weeks after the last application, some of the products were still providing near 100% control. Many of these treatments contained DMI's as the sole or partial component.

Table 1. Percent Dollar Spot Damage

#	Treatment[1]	Form	Rate	Rate Unit	Interval (Day)	% Damage 7-10-00		% Damage 7-29-00		% Damage 8-15-00		% Damage 9-8-00	
1	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	8.3	BCD	6.7	B	10.0	BC	18.3	B
2	***Daconil Ultrex***	82.5 WDG	3.8	oz/M ft2	21	1.7	FG	1.7	CD	8.3	BCD	15.0	BC
3	***Bayleton***	50 WDG	0.11	oz/M ft2	21	10.0	BC	6.7	B	11.7	B	13.3	BCD
4	***Bayleton***	50 WDG	1.0	oz/M ft2	21	1.7	FG	1.7	CD	0.0	G	0.0	H
5	***Banner Maxx***	1.3 MC	0.22	fl oz/M ft2	21	11.7	B	5.0	BC	5.0	DEF	11.7	CDE
6	***Banner Maxx***	1.3 MC	2.0	fl oz/M ft2	21	3.3	EFG	0.0	D	1.7	FG	6.7	EFG
7	***Chipco Triton***	1.67 SC	0.25	fl oz/M ft2	21	5.0	DEF	0.0	D	0.0	G	5.0	FGH
8	***Chipco Triton***	1.67 SC	1.5	fl oz/M ft2	21	0.0	G	0.0	D	0.0	G	0.0	H
9	***Chipco 26 GT***	2 SC	2.0	fl oz/M ft2	21	5.0	DEF	0.0	D	0.0	G	13.3	BCD
10	***Chipco 26 GT***	2 SC	3.0	fl oz/M ft2	21	1.7	FG	0.0	D	0.0	G	6.7	EFG
11	***Cleary's 3336***	4F	0.22	fl oz/M ft2	21	0.0	G	0.0	D	0.0	G	5.0	FGH
12	***Cleary's 3336***	4 F	1.75	fl oz/M ft2	21	0.0	G	0.0	D	0.0	G	1.7	GH
13	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	0.0	G	0.0	D	0.0	G	1.7	GH
	Cleary's 3336	4F	0.22	fl oz/M ft2									
	Chipco 26 GT	2 SC	2.0	fl oz/M ft2									
14	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	0.0	G	0.0	D	0.0	G	3.3	FGH
	Chipco 26 GT	2 SC	2.0	fl oz/M ft2									
	Bayleton	50 WDG	0.11	oz/M ft2									
15	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	0.0	G	0.0	D	0.0	G	1.7	GH
	Chipco 26 GT	2 SC	2.0	fl oz/M ft2									
	Banner Maxx	1.3 MC	0.22	fl oz/M ft2									
16	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	0.0	G	0.0	D	0.0	G	0.0	H
	Chipco 26 GT	2 SC	2.0	fl oz/M ft2									
	Chipco Triton	1.67 SC	0.25	fl oz/M ft2									
17	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	0.0	G	0.0	D	0.0	G	0.0	H
	Cleary's 3336	4F	0.22	fl oz/M ft2									
	Bayleton	50 WDG	0.11	oz/M ft2									
18	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	0.0	G	0.0	D	0.0	G	1.7	GH
	Cleary's 3336	4F	0.22	fl oz/M ft2									
	Banner Maxx	1.3 MC	0.22	fl oz/M ft2									
19	***Daconil Ultrex***	82.5 WDG	2.5	oz/M ft2	21	0.0	G	0.0	D	0.0	G	0.0	H
	Cleary's 3336	4F	0.22	fl oz/M ft2									
	Chipco Triton	1.67 SC	0.25	fl oz/M ft2									
20	***Chipco 26 GT***	2 SC	2.0	fl oz/M ft2	21	0.0	G	0.0	D	0.0	G	3.3	FGH
	Cleary's 3336	4F	0.22	fl oz/M ft2									
	Bayleton	50 WDG	0.11	oz/M ft2									
21	***Chipco 26 GT***	2 SC	2.0	fl oz/M ft2	21	0.0	G	0.0	D	0.0	G	3.3	FGH
	Cleary's 3336	4F	0.22	fl oz/M ft2									
	Banner Maxx	1.3 MC	0.22	fl oz/M ft2									
22	***Chipco 26 GT***	2 SC	2.0	fl oz/M ft2	21	0.0	G	0.0	D	0.0	G	0.0	H
	Cleary's 3336	4F	0.22	fl oz/M ft2									
	Chipco Triton	1.67 SC	0.25	fl oz/M ft2									
23	Daconil Ultrex	82.5 WDG	3.2	oz/M ft2	14	0.0	G	1.7	CD	3.3	EFG	16.7	BC
24	Daconil WS	6 SC	4.125	fl/M ft2	14	0.0	G	0.0	D	1.7	FG	13.3	BCD
25	Echo 720	6 SC	4.125	fl/M ft2	14	1.7	FG	0.0	D	3.3	EFG	13.3	BCD
26	GX-611	6 SC	4.125	fl/M ft2	14	3.3	EFG	1.7	CD	3.3	EFG	13.3	BCD
27	Chipco Triton	1.67 SC	1.0	fl/M ft2	28	3.3	EFG	0.0	D	0.0	G	1.7	GH
28	Eagle	40 WP	1.2	oz/M ft2	28	0.0	G	0.0	D	0.0	G	0.0	H
29	Banner Maxx	1.24 MC	0.5	fl/M ft2	28	5.0	DEF	3.3	BCD	0.0	G	8.3	DEF
30	Rubigan	1.0 SC	2.0	fl/M ft2	28	3.3	EFG	0.0	D	0.0	G	5.0	FGH
31	Bayleton	50 WDG	0.5	oz/M ft2	28	6.7	CDE	0.0	D	0.0	G	3.3	FGH
32	Lynx	45 WP	0.55	oz/M ft2	28	0.0	G	1.7	CD	0.0	G	1.7	GH
33	Banner Maxx	1.24 MC	0.22	fl/M ft2	21	0.0	G	0.0	D	0.0	G	0.0	H
	Bayleton	50 WDG	0.125	oz/M ft2									
34	Banner Maxx	1.24 MC	0.22	fl/M ft2	21	1.7	FG	3.3	BCD	0.0	G	0.0	H
	Chipco 26 GT	2.0 SC	0.75	fl/M ft2									
35	Banner Maxx	1.24 MC	0.22	fl/M ft2	21	5.0	DEF	5.0	BC	6.7	CDE	15.0	BC
	Daconil Ultrex	82.5 WDG	0.95	oz/M ft2									
36	Check					16.7	A	16.7	A	40.0	A	28.3	A
LSD (P = 0.05)						**3.71**		**3.72**		**4.17**		**5.81**	

[1]Treatments in Italics are part of the reduced-rate mixture study and are applied at off-label rates.
Means followed by the same letter do not statistically differ (P=0.05)