



Pathological Pointers

CAMPUS DOLLAR SPOT TESTS

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The dollar spot epidemic did not start on campus as early in 1982; disease symptoms were about one month later than the 1981 season. This may be due to the change in the chemical approach to dollar spot control and the level of control at the end of the 1981 season. In 1980 and 1981 no treatments were applied until symptoms were present and then the disease had a good start. Each year after 1980 treatment application began earlier 6/23/81 and 6/7/82. While in 1980 the first application was 7/29. This observation, delayed symptom development, while somewhat dependent on the environment also serves to remind us about inoculum pressure. This concept can be reduced to the number of infective units in the area. If more infective units, i.e. propagules are present disease pressure is higher and disease symptom level is greater and/or starts earlier. The amount of disease pressure in 1980 and 1981 was greater than the corrective pressure of contact fungicides, i.e. Actidione + Daconil and even that of the systemics at low rates. The Golf Course Superintendent has the tendency to choose the best product from tests like this and use it in his disease control program. While this may insure a successful program, products other than the best may also perform well under your disease pressure conditions. Careful attention to product selection for your disease conditions may save you fungicide dollars.

In the 1982 results please note the significant change in RP26019 performance. This is, I believe due to using a new product. The supply I used in 1980 and 1981 was old material. It was stored in a heated building, under dry conditions yet activity was lost. I can't explain what happened but when a new supply of RP26019 was used the results were excellent at either the 1 oz or 2 oz rate applied every 14 days.

The results from this test reflect control of dollar spot under a non-use condition and adequate to low fertility programs. The plot area does have significant thatch build-up which should favor disease development and the plot has no history of systemic fungicide resistance. All materials were applied in 5 gal water/1000 sq ft with two passes over the plot area when applying fungicide. Pressure in the tank is about 45 to 50 PSI but the operating pressure at the boom is at least 1/2 the tank pressure. This is a low pressure-reduced drift situation.

Another study compared Daconil F and Ciba Geigy 64250 (Banner), a flowable and a liquid (ec) at 4, 2 + 1 gal/1000 sq ft. The results are no different from the 5 gal/1000 sq ft plots. Substantial saving can result when using low gallonage treatments. If you have not reduced water volumes for summer foliar problems, or have, may I suggest that you do but test your sprayer first. Operating pressure and nozzle placement is much more critical under low volume treatments. Nozzle over-lap and wind effects are greater when applying less water. Chemical burn potential is also greater when applying products in a more concentrated form. This may become even a greater problem with EC formulations or tank mixes of two products.

SEE STATISTICAL CHARTS ON PAGES 8 & 9

1980

DOLLAR SPOT

PRODUCT	RATE/1000 SQ FT	AVERAGE # SPOTS/44 SQ FT																
		JUNE				JULY				AUG				SEPT				
		WEEKS	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Actidione TGF 1 oz.						15					1	26	36	40	53	49	--	23
Actidione TGF 2 oz.						15					2	12	30	29	74	78	--	23
Daconil 2787 W 1 oz						36					14	56	49	54	101	72	--	65
Daconil 2787 W 2 oz.						20					3	17	24	24	71	67	--	37
ATGF + D 2787 1 oz + 1 oz						11					3	6	7	8	31	46	--	26
Bayleton 0.5 oz						7					5	3	1	2	26	21	--	7
ATGF + Bayleton 1 oz + 0.5 oz						3					3	2	0	1	15	16	--	2
Tersan 1991 1 oz						11					5	1	0	2	10	25	--	1
RP260192 oz						4					1	4	12	14	47	56	--	21
Daconil F 3 Fl oz						8					3	7	5	6	24	36	--	14
Daconil F 6 Fl oz						4					4	2	3	2	16	20	--	6
Ciba Geigy 2 gms ai						9					5	0	0	0	6	5	--	2
Ciba Geigy 4 gms ai						10					3	2	0	1	2	6	--	0
Fore 4 oz						13					4	6	13	13	45	43	--	42
Cleary 3336 2 oz						13					2	0	1	1	22	23	--	2
Check --						31					17	37	43	47	74	86	--	72
Above Treatments applied 1980											T				T			T

DOLLAR SPOT

1981

PRODUCT	RATE/1000 SQ FT	AVERAGE # SPOTS/44 SQ FT															
		JUNE				JULY				AUG				SEPT			
		WEEKS	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
Actidione TGF 2 oz						39	16	32		4	17	31	44	45	28		
Daconil 2787 W 2 oz						58	37	76		64	97	103	124	144	68		
ATGF + D2787 1 oz + 1 oz						25	18	47		5	23	46	54	54	22		
Daconil F 4.5 Fl oz						47	60	75		18	60	65	82	92	32		
Daconil F 6. Fl oz						6	17	23		2	21	21	21	20	11		
Bayleton 0.5 oz						0	0	0		0	0	0	1	4	0		
Bayleton 1.0 oz						0	0	0		1	0	0	0	0	0		
Tersan 1991 1 oz						2	2	1		1	1	1	0	0	1		
Cleary 3336 2 oz						0	1	0		0	0	0	0	0	1		
RP26019 1 oz						32	9	33		69	74	80	97	104	78		
RP26019 2 oz						27	55	64		4	12	21	35	48	21		
Ciba Geigy 64251 1 Fl oz						0	0	0		1	0	0	0	0	0		
Fore 4 oz						160	144	151		164	156	166	167	200	162		
Check						126	85	138		140	141	150	180	BAD	127		
Treatments applied 1981							T	T		T		T			T		

DOLLAR SPOT

1982

PRODUCT	RATE/1000 SQ FT	AVERAGE # SPOTS/44 SQ FT															
		JUNE				JULY				AUG				SEPT			
		WEEKS	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3
Actidione TGF 2 oz		0	0	0	0	0	0	0	0	0	0	--		4	1	0	
Daconil F 3 Fl oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
Above Treatment applied																	
1982		T	T	T	T	T	T	T	T	T	T	--		T	T	0	
Banner 0.5 Fl oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
Banner 1.0 Fl oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
RP26019 1 oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
RP26019 2 oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
Tersan 1991 1 oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
Vorlan 2 oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
Above Treatment applied																	
1982		T	-	T	-	T	T			T	-	T	--	T	-	T	
Bayleton 0.5 oz		0	0	0	0	0	0	0	0	0	0	--		1	0	0	
Bayleton 1.0 oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
Bayleton 2.0 oz		0	0	0	0	0	0	0	0	0	0	--		0	0	0	
Above Treatment applied																	
1982		T								T				T			
Check		0	0	0	0	0	0	0	0	7	10	--		49	57	97	

DOLLAR SPOT - WATER VOLUME STUDY

TREATMENT	WEEKS	AVERAGE # SPOTS/44 SQ FT															
		JUNE				JULY				AUG				SEPT			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Daconil F 3 Fl oz																	
in 4 gal		0	0	0	0	0	0	0	0	0	0	-	0	0	0		
in 2 gal		0	0	0	0	0	0	0	0	0	0	-	0	0	1		
in 1 gal		0	0	0	0	0	0	0	0	0	0	-	0	0	0		
Banner 1 Fl oz																	
in 4 gal		0	0	0	0	0	0	0	0	0	0	-	0	0	0		
in 2 gal		0	0	0	0	0	0	0	0	1	1	-	0	0	0		
in 1 gal		0	0	0	0	0	0	0	0	0	0	-	0	0	0		
Above Treatments applied																	
1982		T	-	T	-	T	T	-	T	-	T	-	T	-	T		
Check		0	0	0	0	0	0	0	0	8	10	-	72	68	84		