

Anthracnose Fungicide Studies - 1986

Two anthracnose (Colletotrichum graminicola) fungicide studies were established this year, one at the Borroughs Farms Golf Course in Brighton, Michigan and another at the Glen Gary Golf Club in Holland, Ohio. Both studies were set up on moderately fertilized, irrigated annual bluegrass (Poa annua L.) fairways in three replications of a random block design with a 6' x 9' plot size. All applications were made with a CO₂ small-plot sprayer at 30 PSI and 48 gal/acre. The fairways were mowed regularly at 1/2" height of cut.

Initial applications were made preventively on July 7 (Glen Gary Golf Club) and July 10 (Borroughs Farms Golf Course). Both of these locations have experienced significant anthracnose pressure in past years. Subsequent applications were made at the intervals indicated on the data table. When the disease rating was taken on the Glen Gary study (August 28), the 10 day treatments had been applied five times (7/7, 7/17, 7/28, 8/7, 8/15), the 14 day treatments had been applied four times (7/7, 7/21, 8/4, 8/20), and the 21 day treatments had been applied three times (7/7, 7/28, 8/20) (Table 4). The same application's were made on the Borroughs Farms location, unfortunately, disease pressure never developed on this site and no data was collected.

During normal golf course maintenance operations, part of the test area at the Glen Gary Golf Club (Rep. I) was oversprayed with Tersan 1991. This application distorted the data by controlling most of the disease in replicate 1. For this reason, we decided to present the data without statistical analysis since the analysis would be based on only two replications.

Mild phytotoxicity was observed in one treatment as noted on the data table.

Emerald Creeping Bentgrass Dollar Spot Fungicide Study - 1986

The 1986 dollar spot (Moellerodiscus sp., Lanzia sp.) fungicide studies were conducted on a moderately fertilized, irrigated Emerald creeping bentgrass green at the Hancock Turfgrass Research Center on the MSU campus. Treatments were applied preventively in three replications of a random block design (3' x 6' plots) using a CO₂ small-plot sprayer operating at a volume of 48 gal/acre and a pressure of 30 PSI.

Treatments were initiated on August 13. By the time the rating was taken (Oct. 3), the 10 day treatments had been applied 5 times (8/13, 8/21, 9/3, 9/15, 9/22), the 14 day treatments had been applied 4 times (8/13, 8/28, 9/9, 9/24), and the 21 day treatments had been applied 3 times (8/13, 9/3, 9/24) (Table 5).

The weather during the 5 week period from Aug. 25 - Sept. 30 was extraordinarily wet and cool. It rained virtually daily during September. This caused disease pressure to abate until late September when temperatures returned to normal and disease pressure developed

San 619	1.75 gm. ai.	21 day	0	25	35	20.0
San 619	7 gm. ai.	21 day	0	25	35	20.0
Daconil 2787	6 fl oz	14 day	0	25	40	21.7
Daconil 2787 + Urea	6 fl oz + 0.5 lb N.	14 day	0	20	50	23.3
Check	--	--	0	25	45	23.3
Daconil 2787	3 fl oz	14 day	2	20	50	24.0
Daconil 2787 + Urea	3 fl oz + 0.5 lb N.	14 day	10	35*	35*	26.7
Lesco R 09524	6 oz	14 day	1	40	40	27.0
Daconil 2787	3 fl oz	10 day	5	40	40	28.3
Lesco R 09524	3 oz	14 day	1	35	50	28.7
Vorlan	2 oz	14 day	0	40	50	30.0

¹ Treatment followed by the same letter are not significantly different at the 5% level.

* Mild phytotoxicity expressed as a leaf tip burn.

Table 5. Emerald Creeping Bentgrass Dollar Spot Fungicide Study - 1986

Hancock Turfgrass Research Center, M.S.U., E. Lansing, MI
Disease rating: number of dollar spots/plot
Rating data - 10/3/86

<u>Treatment</u>	<u>Rate/1000 ft²</u>	<u>Interval</u>	<u>I</u>	<u>II</u>	<u>III</u>	<u>AVE DMR¹</u>
Daconil 2787	3 fl oz	10 day	0	0	0	0.0 A
Daconil 2787	6 fl oz	10 day	0	0	0	0.0 A
Daconil 2787 + Bayleton	3 fl oz + 1 oz	10 day	0	0	0	0.0 A
Daconil 2787 + Bayleton	6 fl oz + 1 oz	10 day	0	0	0	0.0 A
Bayleton	1 oz	10 day	0	0	0	0.0 A
PP523 + X-77	4 gm ai. + .05%	21 day	0*	0*	0*	0.0 A
PP523 + X-77	6 gm ai. + .05%	21 day	0**	0***	0**	0.0 A
PP523 + X-77	8 gm ai. + .05%	21 day	0***	0**	0*	0.0 A
SAN 619	1.75 gm ai.	21 day	0*	0**	0*	0.0 A
SAN 619	3.5 gm ai.	21 day	0*	0**	0*	0.0 A
SAN 619	7 gm ai.	21 day	0*	0**	0**	0.0 A
DPX H6573	.125 gm ai.	21 day	0	0	0	0.0 A
DPX H6573	.25 gm ai.	21 day	0	0	0	0.0 A
DPX H6573	1 oz ai.	21 day	0	0	0	0.0 A
RH 3486	2 oz ai.	21 day	0	0	0	0.0 A
RH 3486	4 oz ai.	21 day	0	0	0	0.0 A
Lesco 0586	3.5 oz	14 day	0	1	0	0.3 A
Daconil 2787	6 fl oz	14 day	0	0	2	0.7 A
Chipco 26019 WP	2 oz ai.	21 day	0	3	0	1.0 AB
Chipco 26019 Fl	2 oz ai.	21 day	0	5	0	1.7 ABC
Rubigan AS	1.6 oz	21 day	5	0	0	1.7 ABC
RH 3486	1 oz ai.	21 day	5	0	0	1.7 ABC
DPX H6573	.06 oz ai.	21 day	0	4	1	1.7 ABC
Lesco 0586	2.2 oz	14 day	1	7	0	2.7 ABC

Daconil 2787								
+ Urea	3 fl oz + 1/2 lb N.	14 day	0	0	13	4.3	ABC	
Vorlan	2 oz	21 day	12	3	0	5.0	ABC	
Chipco 26019 Fl	.5 oz ai.	21 day	3	0	17	6.7	ABC	
Vorlan								
+ Fungo 50	2 oz + 2 oz	21 day	1	19	1	7.0	ABC	
Daconil 2787								
+ Urea	6 fl oz + 1/4 lb N.	14 day	0	16	5	7.0	ABC	
Daconil 2787	3 fl oz	14 day	1	6	15	7.3	ABC	
Rubigan WP	.4 oz	21 day	8	17	6	10.0	ABCD	
Daconil 2787								
+ Urea	6 fl oz + 1/2 lb N.	14 day	0	32	0	10.7	ABCD	
Lesco R-09524	3 oz	14 day	18	5	13	12.0	ABCDE	
Vorlan								
+ Fungo 50	1 oz + 1 oz	21 day	33	3	0	12.0	ABCDE	
DPX H6573	.03 oz ai.	21 day	3	34	1	12.7	ABCDE	
Rubigan WP	.2 oz	21 day	17	37	9	21.0	ABCDEF	
Vorlan	1 oz	21 day	27	41	0	22.7	ABCDEF	
Daconil 2787								
+ Urea	3 fl oz + 1/4 lb N.	14 day	5	56	8	23.0	ABCDEF	
Rubigan AS	.8 oz	21 day	12	26	33	23.7	ABCDEF	
Chipco 26019 WP	.5 oz ai.	21 day	44	23	6	24.3	ABCDEF	
Tersan 1991	1 oz	21 day	35	26	15	25.3	BCDEF	
Lesco R-09524	6 oz	14 day	18	12	48	26.0	CDEF	
Cleary 3336	1 oz	21 day	38	13	46	32.3	DEFG	
Cleary 3336	2 oz	21 day	83	5	18	35.3	EFG	
Tersan 1991	2 oz	21 day	46	52	13	37.0	FGH	
Fungo 50	1 oz	21 day	55	58	20	44.3	FGH	
Fungo 50	2 oz	21 day	53	56	40	49.7	GH	
Check	--	--	78	42	53	57.7	H	

* Mild phytotoxicity characterized by darker green turf.

** Moderate phytotoxicity characterized by even darker green color with some plant growth regulation characteristics such as wider leaves, etc.

*** Rather severe changes in plant leaf width, etc and a very deep green color with some brown leaf tip burn.

¹ Treatments followed by the same letter are not significantly different at the 5% level.