

<u>Treatment</u>	<u>Rate/1000 ft<sup>2</sup></u>	<u>Interval</u>	<u>Rep1</u>	<u>Rep2</u>	<u>Rep3</u>	<u>Ave.</u>	<u>DMR</u>
Daconil 2787	3 fl oz	14 day	2	0	0	0.7	a
S-1446	0.7 fl oz	14 day	0	2	0	0.7	a
Prochloraz EC	4.5 fl oz	21 day	2**	0*	0*	0.7	a
KWG 0519	.06 oz ai.	21 day	2	0	0	0.7	a
Bayleton	1 oz	28 day	0	2	0	0.7	a
Duosan	3 oz	21 day	2	0	0	0.7	a
BRC 916	4 gm ai.	21 day	0	2	0	0.7	a
S-1446	1.4 fl oz	14 day	0	0	5	1.7	a
DPX 965 + Dac. 2787	.5 oz ai. + 3 oz ai.	21 day	0	5	0	1.7	a
DPX 965	.5 oz ai.	21 day	5	0	0	1.7	a
Prochloraz EC	6 fl oz	21 day	0*	0**	5*	1.7	a
KWG 0519	.12 oz ai.	28 day	3	2	0	1.7	a
Fungo 50	2 oz	21 day	5	0	0	1.7	a
PP 450	4 gm ai.	21 day	0	5	0	1.7	a
Tersan 1991	2 oz	21 day	5	0	0	1.7	a
DPX 965 + Manzate 200	.5 oz ai. + 2.5 oz ai.	21 day	0	2	5	2.3	a
Bayleton	.5 oz	21 day	2	0	5	2.3	a
Banner	1 fl oz	21 day	0	2	5	2.3	a
Lesco 63539	3 fl oz	14 day	5	0	2	2.3	a
PP450	2 gm ai.	21 day	0	10	0	3.3	ab
CGA-449	8 gm ai.	21 day	2	10	0	4	ab
Lesco 63539	6 fl oz	14 day	0	7	5	4	ab
MF 745	2 oz	21 day	5	0	10	5	ab
CGA-449	6 gm ai.	21 day	10	0	5	5	ab
CGA-449	12 gm ai.	21 day	15	2	0	5.7	ab
Manzate 200	2.5 oz ai.	21 day	1	5	20	8.7	ab
Daconil 2787	3 oz ai.	21 day	10	5	25	13.3	bc
Prochloraz EC + AD-TGF	3 fl oz + .34 oz	21 day	0*	0**	40*	13.3	bc
Check	-	-	0	10	30	13.3	bc
MF 745	1 oz	21 day	35	20	5	20	cd
AD-TGF	.34 oz	21 day	25	20	30	25	d

Treatments followed by the same letter(s) are not significantly different from each other at the 5% level. Notes:

\* Indicates slight phytotoxicity (stunting, some discoloration) on 7/26

\*\* Indicates moderate phytotoxicity (increased stunting, leaf necrosis) on 7/26.

#### DOLLAR SPOT FUNGICIDE STUDIES - 1985

The 1985 dollar spot (*Moellerodiscus sp.*, *Lanzia sp.*) fungicide studies were conducted at three sites as detailed below. All treatments were applied to three replicate plots in a random block design using a CO<sub>2</sub> small plot sprayer operating at 30 PSI and a volume of 48 gal/A. All ratings were taken visually on a scale of 1-9 (1= no disease, 9= 90% infection or greater).

### Fylking Kentucky Bluegrass Dollar Spot Fungicide Study

This study was applied curatively on an irrigated, moderately fertilized, bluegrass research area at the Hancock Turfgrass Research Center in East Lansing. Treatments were initiated on August 29 to 3' x 9' plots with subsequent applications being made at 14, 21 and 28 day intervals. By the date of the ratings (Sept. 26), the 14 day and 21 day treatments had been applied twice and the 28 day treatments had been applied once.

### Delray Perennial Ryegrass Dollar Spot Study

This study was conducted on an irrigated, moderately fertilized perennial ryegrass research area at the Hancock Turfgrass Research Center in E. Lansing. Treatments were applied curatively to 3' x 4' plots on August 21 with subsequent applications being made at 14, 21 and 28 day intervals. By the date of the rating (Sept. 22), the 14 day treatments had been applied three times, the 21 day treatments were applied twice and the 28 day treatments were applied twice.

### Glen Gary Annual Bluegrass Benzimidazole Resistant Dollar Spot Study

The benzimidazole - resistant dollar spot study was conducted on an irrigated, moderately fertilized annual bluegrass (*Poa annua*) fairway at the Glen Gary Golf Course in Holland, Ohio. Treatments were applied preventively to 6' x 9' plots on July 3 with subsequent applications being made on 14, 21 and 28 day intervals. By the time ratings were taken (August 28), the 14 day treatments had been applied four times, the 21 day treatments had been applied three times and the 28 day treatments had been applied twice.

As would be expected, the benzimidazole fungicides (Tersan 1991, Fungo 50, and Clearys 3336) performed poorly against the resistant dollar spot strains, confirming the results of our laboratory bioassay which showed moderate levels of benzimidazole resistance in the dollar spot isolates from the Glen Gary course.

GLEN GARY ANNUAL BLUEGRASS  
BENZIMIDAZOLE-RESISTANT DOLLAR SPOT FUNGICIDE STUDY - 1985  
Glen Gary Golf Course, Holland, Ohio  
Disease Rating: 1(no disease) - 9(90% infection or greater)  
Plots rated 8/28/85

<u>Treatment</u>	<u>Rate/1000 ft2</u>	<u>Interval</u>	<u>Rep.1</u>	<u>Rep.2</u>	<u>Rep.3</u>	<u>Ave</u>	<u>DMR</u>
Daconil 2787	3 fl oz	14 day	1	1	1	1	a
Daconil 2787	6 fl oz	14 day	1	1	1	1	a
S-1555	6 fl oz	21 day	1	1	1	1	a
S-1555	9 fl oz	21 day	1	1	1	1	a
S-1446	0.7 fl oz	14 day	1	1	1	1	a
S-1446	1.4 fl oz	14 day	1	1	1	1	a
DPX H6573	.125 oz ai	21 day	1	1	1	1	a
DPX H6573	.25 oz ai	21 day	1	1	1	1	a
DPX H6573	.5 oz ai	21 day	1	1	1	1	a
DPX H6573	1 oz ai	21 day	1	1	1	1	a

<u>Treatment</u>	<u>Rate/1000 ft2</u>	<u>Interval</u>	<u>Rep.1</u>	<u>Rep.2</u>	<u>Rep.3</u>	<u>Ave</u>	<u>DMR</u>
DPX 965 + DPX H6573	.5 oz ai + .25 oz ai	21 day	1	1	1	1	a
Prochloraz EC	4.5 fl oz	21 day	1	1	1	1	a
Prochloraz EC + AD-TGF	3 fl oz + 0.34 oz	21 day	1	1	1	1	a
HWG 1608	0.25 oz ai	21 day	1	1	1	1	a
KWG 0519	.06 oz ai.	21 day	1	1	1	1	a
KWG 0519	.12 oz ai.	28 day	1	1	1	1	a
Bayleton + CH26019	1 oz + 1.5 oz	28 day	1	1	1	1	a
MF 745	2 oz	21 day	1	1	1	1	a
PP 450	2.0 gm ai.	21 day	1	1	1	1	a
PP 450	4.0 gm ai.	21 day	1	1	1	1	a
BRC 916	2.0 gm ai.	21 day	1	1	1	1	a
BRC 916	4.0 gm ai.	21 day	1	1	1	1	a
Banner	1.0 fl oz	21 day	1	1	1	1	a
Lesco 0585	2.5 oz	21 day	1	1	1	1	a
Lesco 0585	4.0 oz	21 day	1	1	1	1	a
DPX 965 + Daconil 2787	.5 oz ai. 3 oz ai.	21 day	1	1	2	1.3	ab
DPX 965 + Manzate 200	.5 oz ai. + 2.5 oz ai.	21 day	1	2	1	1.3	ab
Daconil 2787	3 oz ai.	21 day	1	1	2	1.3	ab
Actidione-TGF (AD-TGF)	0.34 oz	21 day	1	1	2	1.3	ab
Bayleton	0.5 oz	21 day	2	1	1	1.3	ab
Bayleton	1.0 oz	28 day	2	1	1	1.3	ab
Fungo 50	2.0 oz	21 day	1	1	2	1.3	ab
Lesco 63539	6.0 fl oz	14 day	1	2	1	1.3	ab
Prochloraz EC + AD-TGP	4.5 fl oz + .34 oz	21 day	1	1	3	1.7	abc
MF 745	1.0 oz	21 day	1	1	3	1.7	abc
CGA 449	8.0 gm ai.	21 day	1	1	3	1.7	abc
CGA 449	12 gm ai.	21 day	1	2	2	1.7	abc
Tersan 1991	1.0 oz	21 day	2	1	2	1.7	abc
Prochloraz EC	6.0 fl oz	21 day	1	4	1	2	abc
Lesco 63539	3.0 fl oz	14 day	2	2	2	2	abc
Manzate 200	2.5 oz ai.	21 day	3	2	3	2.7	abc
CGA 449	24 gm ai.	21 day	2	4	2	2.7	abc
CGA 449	6.0 gm ai.	21 day	1	6	2	3.0	bc
Tersan 1991	2.0 oz	21 day	3	4	2	3.0	bc
Check	-	-	2	2	5	3.0	bc
DPX 965	.25 oz ai.	21 day	1	6	3	3.3	c
Fungo 50	1.0 oz	21 day	1	2	7	3.3	c
Duosan	3.0 oz	21 day	1	5	4	3.3	c
Cleary 3336	1.0 oz	21 day	5	4	6	5.0	d
Cleary 3336	2.0 oz	21 day	5	6	4	5.0	d

Treatments followed by the same letter are not significantly different from each other at the 5% level of significance.

FLYKING BLUEGRASS DOLLAR SPOT FUNGICIDE STUDY - 1985  
Hancock Turfgrass Research Center  
MSU, E. Lansing, MI 48824  
Disease Rating: 1(no disease) - 9(90% infection or greater)  
Plots rated on 9/26/85

<u>Treatment</u>	<u>Rate/1000 ft2</u>	<u>Interval</u>	<u>Rep.1</u>	<u>Rep.2</u>	<u>Rep.3</u>	<u>Ave</u>	<u>DMR</u>
Prochloraz EC + AD-TGF	3 fl oz + .34 oz	21 day	1**	1**	1*	1	a
MF 745	2 oz	21 day	1	1	1	1	a
Prochloraz EC+ AD-TGF	4.5 fl oz + .34 oz	21 day	1**	1**	1**	1	a
Tersan 1991	1 oz	21 day	1	1	1	1	a
Daconil 2787	6 fl oz	14 day	2	1	1	1.3	abd
PP 450	4 gm ai.	21 day	1	2*	1*	1.3	abd
Banner	1 fl oz	21 day	1	2	1	1.3	abd
MF 690	2 oz	14 day	1	2	1	1.3	abd
MF 690	2 oz	21 day	1	2	1	1.3	abd
Prochloraz EC	6 fl oz	21 day	1	2*	1	1.3	abd
Tersan 1991	2 oz	21 day	1	2	1	1.3	abd
DPX H6573	.32 oz	21 day	3	1	1	1.7	abcdef
PX H6573	.63 oz	21 day	3	1	1	1.7	abcdef
DPX H6573	2.5 oz	21 day	3	1	1	1.7	abcdef
Prochloraz EC	4.5 fl oz	21 day	3	1*	1*	1.7	abcdef
Bayleton + CH 26019	1 oz + 1.5 oz	28 day	2	2	1	1.7	abcdef
BRC 916 + X-77	4 gm ai. + 0.05%	21 day	2	2	1	1.7	abcdef
Lesco 0585	4 oz	21 day	2	2	1	1.7	abcdef
MF 729	2 oz	14 day	1	2	2	1.7	abcdef
MF 729	2 oz	21 day	2	2	1	1.7	abcdef
MF 745	2 oz	14 day	2	2	1	1.7	abcdef
Cleary's 3336	2 oz	21 day	2	2	1	1.7	abcdef
S-1555	9 fl oz	21 day	2	3	1	2.0	abcdef
DPX H6573	1.3 oz	21 day	2	2	2	2.0	abcdef
Vorlan	2 oz	21 day	2	2	2	2.0	abcdef
MF 729	1 oz	14 day	3	2	1	2.0	abcdef
Cleary's 3336	1 oz	21 day	1	3	2	2.0	abcdef
Fungo 50	1 oz	21 day	2	2	2	2.0	abcdef
Fungo 50	2 oz	21 day	2	2	2	2.0	abcdef
Chipco 26019 F1	1 oz ai.	21 day	2	2	2	2.0	abcdef
BRC 916 + X-77	2 gm ai. + 0.05%	21 day	3	2	2	2.3	bcdefg
Chipco 26019 F1	0.75 oz ai.	21 day	3	2	2	2.3	bcdefg
Vorlan	1 oz	21 day	2	3	2	2.3	bcdefg
MF 745	1 oz	14 day	2	3	2	2.3	bcdefg
S-1555	6 fl oz	21 day	2	4	2	2.7	defgh
S-1446	0.7 fl oz	14 day	3	3	2	2.7	defgh
S-1446	1.4 fl oz	14 day	3	3	2	2.7	defgh
Bayleton	1 oz	28 day	4	3	1	2.7	defgh
PP 450	2 gm ai.	21 day	3	3	2	2.7	cdefgh
Lesco 0585	2.5 oz	21 day	2	4	2	2.7	cdefgh
MF 745	1 oz	21 day	3	3	2	2.7	cdefgh
Bayleton	1 oz	21 day	2	4	2	2.7	cdefgh
Daconil 2787	3 fl oz	14 day	3	3	3	3.0	fghi

<u>Treatment</u>	<u>Rate/1000 ft2</u>	<u>Interval</u>	<u>Rep.1</u>	<u>Rep.2</u>	<u>Rep.3</u>	<u>Ave</u>	<u>DMR</u>
Chipco 26019 WP	1 oz ai.	21 day	3	4	2	3.0	efghi
MF 729	1 oz	21 day	2	4	3	3.0	efghi
MF 690	1 oz	14 day	3	3	3	3.0	efghi
Chipco 26019 WP	.75 oz ai.	21 day	4	4	2	3.3	ghi
MF 690	1 oz	21 day	4	4	3	3.7	hij
CGA 449	24 gm ai.	21 day	5	4	1	4.0	ij
Lesco 63539	6 fl oz	14 day	5	5	4	4.7	
Bayleton	0.5 oz	21 day	4	5	5	4.7	
Actidione-TGF (AD-TGF)	1 oz	21 day	6*	4	4*	4.7	
CGA-449	12 gm ai.	21 day	6	6	6	6.0	k
Lesco 63539	3 fl oz	14 day	7	6	5	6.0	k
Control	-	-	6	7	7	6.7	k
CGA-449	6 gm ai.	21 day	8	8	5	7.0	k
CGA-449	8 gm ai.	21 day	7	7	7	7.0	k

Notes: Treatments followed by the same letter(s) are not significantly different from each other at the 5 % level. \* Indicates slight phytotoxicity (yellowing and/or stunting)

\*\* Indicates moderate phytotoxicity (leaf tip browning, stunted growth)

DELRAY RYEGRASS DOLLAR SPOT FUNGICIDE STUDY - 1985

Hancock Turfgrass Research Center

MSU, East Lansing, MI 48824

Disease rating: 1(no disease) - 9(90% infection or greater)

Plots rated 9/22/85

<u>Treatment</u>	<u>Rate/1000 ft2</u>	<u>Interval</u>	<u>Rep.1</u>	<u>Rep.2</u>	<u>Rep.3</u>	<u>Ave</u>	<u>DMR</u>
Daconil 2787	3 fl oz	14 day	1	1	1	1	a
Daconil 2787	6 fl oz	14 day	1	1	1	1	a
S-1446	.7 fl oz	14 day	1	1	1	1	a
DPX H6573	.125 oz ai.	21 day	1	1	1	1	a
DPX H6573	.25 oz ai.	21 day	1	1	1	1	a
DPX H6573	.5 oz ai.	21 day	1	1	1	1	a
DPX H6573	1 oz ai.	21 day	1	1	1	1	a
BRC 916 + X-77	2 gm ai. + .05%	21 day	1	1	1	1	a
BRC 916 + X-77	1 gm ai. + .05%	21 day	1	1	1	1	a
PP 450	4 gm ai.	21 day	1	1	1	1	a
Banner	1 fl oz	21 day	1	1	1	1	a
Lesco 0585	2.5 oz	21 day	1	1	1	1	a
Lesco 0585	4 oz	21 day	1	1	1	1	a
Lesco 63539	6 fl oz	14 day	1	1	1	1	a
Chipco 26019 WP	.75 oz ai.	21 day	1	1	1	1	a
Chipco 26019 FL	.75 oz ai.	21 day	1	1	1	1	a
Vorlan	2 oz	21 day	1	1	1	1	a
MF 729	2 oz	14 day	1	1	1	1	a
MF 729	2 oz	21 day	1	1	1	1	a
MF 690	1 oz	14 day	1	1	1	1	a
MP 690	2 oz	14 day	1	1	1	1	a

<u>Treatment</u>	<u>Rate/1000 ft2</u>	<u>Interval</u>	<u>Rep.1</u>	<u>Rep.2</u>	<u>Rep.3</u>	<u>Ave</u>	<u>DMR</u>
MF 745	1 oz	21 day	1	1	1	1	a
MF 745	2 oz	14 day	1	1	1	1	a
MF 745	2 oz	21 day	1	1	1	1	a
Bayleton	1 oz	21 day	1	1	1	1	a
Tersan 1991	1 oz	21 day	1	1	1	1	a
Tersan 1991	2 oz	21 day	1	1	1	1	a
Cleary 3336	1 oz	21 day	1	1	1	1	a
Fungo 50	1 oz	21 day	1	1	1	1	a
Fungo 50	2 oz	21 day	1	1	1	1	a
S-1446	1.4 fl oz	14 day	2	1	1	1.3	a
Bayleton	1 oz	28 day	2	1	1	1.3	a
Bayleton + CH 26019 WP	1 oz + .75 oz ai.	28 day	2	1	1	1.3	a
PP 450	2 gm ai.	21 day	2	1	1	1.3	a
Chipco 26019 FL	1 oz ai.	21 day	1	1	2	1.3	a
Vorlan	1 oz	21 day	2	1	1	1.3	a
MF 729	1 oz	14 day	1	1	2	1.3	a
MF 745	1 oz	14 day	1	1	2	1.3	a
Cleary's 3336	2 oz	21 day	1	1	2	1.3	a
S-1555	9 fl oz	21 day	3	1	1	1.7	a
Prochloraz EC	4.5 fl oz	21 day	2	2	1	1.7	a
Lesco 63539	3 fl oz	14 day	2	2	1	1.7	a
Prochloraz EC	6 fl oz	21 day	1	3	1	1.7	a
Prochloraz EC + AD-TGF	4.5 fl oz + .34 oz	21 day	1	3	1	1.7	a
S-1555	6 fl oz	21 day	3	1	2	2	ab
Bayleton	.5 oz	21 day	2	2	2	2	ab
MF 729	1 oz	21 day	3	2	1	2	ab
Prochloraz EC + AD-TGF	3 fl oz + .34 oz	21 day	2	3	2	2.3	abc
MF 690	1 oz	21 day	3	2	2	2.3	abc
Chipco 26019 WP	1 oz ai	21 day	2	1	6	3	bc
CGA 449	24 gm ai.	21 day	5	2	3	3.3	cd
Actidione TGF (AD-TGF)	1 oz	21 day	5	5	3	4.3	d
CGA 449	8 gm ai.	21 day	7	5	5	5.7	e
CGA 449	12 gm ai	21 day	8	7	4	6.3	e
CGA 449	6 gm ai	21 day	7	7	6	6.7	e
Check	-	-	7	6	7	6.7	e

Treatments followed by the same letter are not significantly different from each other at the 5% level.