

TURFGRASS DISEASE MANAGEMENT REPORT - 1984-1985

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SNOW MOLD FUNGICIDE TRIALS - 1984-1985

The 1984-85 snow mold fungicide studies #1 and #2 were conducted at the Boyne Highlands Resort in Harbor Springs, MI, on irrigated Penncross creeping bentgrass fairways which were mowed at 1/2" height of cut. Treatments were applied preventively to 6' x 9' plots in three replications of a random block design on November 7, 1984. The sprayable formulations were applied with a CO₂ small-plot sprayer at a volume of 48 gal/acre and 30 PSI. The granular treatments were pre-weighed and applied by hand. The plots were rated for disease on April 17, 1985, immediately following snow cover melt-off.

As can be seen from the controls, disease pressure was moderately severe in both studies this year. There was, however, a good deal of variation in disease pressure within some of the listed treatments. The standard treatments (Calo-Clor, Calo-Gran, Scotts F + F II, Daconil 2787 + Tersan 1991), however, continued to show consistently effective control of all three snow mold organisms (Typhula incarnata, Typhula ishikariensis, Fusarium nivale). It should be mentioned that the treatments which combined a fertilizer carrier with Calo-Clor (study #2) generally produced a higher quality (greener) turf than where the Calo-Clor component was used by itself, although there was no effect on disease control.

BOYNE HIGHLANDS SNOW MOLD FUNGICIDE STUDY #1 - 1984-85

Boyne Highlands Resort
 Harbor Springs, MI
 Plots rated 4/17/85

Percent plot area infected with all snow molds.
 (Typhula incarnata, Typhula ishikariensis, Fusarium nivale)

<u>Treatment</u>	<u>Rate/1000/ft</u>	<u>Rep.I</u>	<u>Rep.II</u>	<u>Rep.III</u>	<u>Ave</u>	<u>DMR (.05)</u>
Scotts F + F II	2X	0	0	0	0	A
Calo-Clor	3 oz	0	1*	0*	.3	A
Calo-Gran	6 lbs	0	1*	1	.7	A
Scotts F + F II	1X	1	0	1	.7	A
Daconil 2787 + Tersan 1991	8 fl oz + 2 oz	2	1	0	1	A
Banner/ Chlorothalonil	6 oz	2	5	0	2.3	A
XE-779	.062 lb ai.	2*	1*	5	2.7	A
Daconil 2787	8 fl oz	5	3	5	4.3	AB
Caddy, Spotrete F, Clearspray	1 fl oz, 6 fl oz 6 fl oz	10	3	I	4.7	AB

<u>Treatment</u>	<u>Rate/1000/ft</u>	<u>Rep. I</u>	<u>Rep. II</u>	<u>Rep. III</u>	<u>Ave</u>	<u>DMR (.05)</u>
XE-779	.032 lb ai.	10	5	3	6	ABC
PMAS	2 fl oz	0	4	20	8	ABCD
Banner	4 fl oz	5	20	7	10.7	ABCD
Banner/ Manzate 200	2 fl oz + 4 oz	20	25	2	15.7	ABCDEFG
SN 84364, Prochloraz WP X-77	2.4 oz ai. 3 oz ai. 25%	5	40	2	15.7	ABCDEF
PMAS, Spotrete F Clearspray	2 fl oz. 6 fl oz. 6 fl oz.	2	40	15	19	ABCDEFGH
BAS 45406F	4.2 fl oz	10	20	35	21.7	ABCDEFGH
Daconil 2787	3 fl oz	35	30	3	22.7	ABCDEFGH
SN 84364 + X-77	2.4 oz ai. + 25%	45	20	10	25	ABCDEFGH
Spotrete WP + Sulfur F	8 oz + 16 fl oz	10	30	40	26.7	ABCDEFGH
SN 84363, Prochloraz WP X-77	1.7 oz ai. 3 oz ai 25%	10	40	30	26.7	ABCDEFGH
Manzate 200	4 oz	50	25	30	35	ABCDEFGHI
Spotrete F + Sulfur F	6 fl oz + 16 fl oz	20	60	30	36.7	CDEFGHI
Spotrete F	6 fl oz	40	40	30	36.7	DEFGHI
Prochloraz WP + X-77	3 oz ai. + 25%	25	60	40	41.7	EFGHIJ
SN 84364 + X-77	1.7 oz ai. + 25%	50	30	45	41.7	EFGHIJ
PMAS + Sulfur F	2 fl oz + 16 fl oz	75	14	40	43	EFGHIJ
Spotrete WP	8 oz	50	45	45	46.7	FGHIJ
Caddy	1 fl oz	50	50	40	46.7	GHIJ
Cleary Granular Fungicide	4 lbs	50	50	40	46.7	GHIJ
Prochloraz EC	3 oz ai.	60	80	1	47	HIJ
BAS 45406F	2.8 fl oz	25	45	80	50	HIJK
Prochloraz EC	1.5 oz ai.	50	30	65	58.3	IJK
Tersan 1991	2 oz	60	80	50	63.3	IJK
Control	-	70	60	60	63.3	IJK
Sulfur F	16 fl oz	35	90	90	71.7	JK
Cadtrete Gr. Fungicide	8 lbs	80	80	75	78.3	K

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

* Indicates slight phytotoxicity (yellowing).

BOYNE HIGHLANDS SNOW MOLD FUNGICIDE STUDY #2 - 1984-85

Boyne Highlands Resort
Harbor Springs, MI

Plots rated 4/17/85

Percent plot area infected with all snow molds.
(Typhula incarnata, Typhula ishikariensis, Fusarium nivale)

<u>Treatment</u>	<u>Rate/1000 ft2</u>	<u>Rep.I</u>	<u>Rep.II</u>	<u>Rep.III</u>	<u>Ave</u>
Calo-Clor	3 oz	0*	0*	0*	0 A
Calo-Clor + Urea	3 oz + 1 lb N.	1	1	1	1 A
Calo-Clor + MCI-55	3 oz + 3.64 lbs	2	0	1	1 A
Calo-Clor + MCI-55	3 oz + 1.82 lbs	1	2	5	2.7 A
Calo-Clor + Urea	3 oz + 2 lb N.	10	5	2	5.7 A
Calo-Clor	1.5 oz	0*	10	15	8.3 A
Calo-Clor + Urea	1.5 oz + 1 lb N.	1	5	20	8.7 A
Calo-Clor + MCI-55	1.5 oz + 3.64 lbs	14	35	40	29.7 B
Control	-	80	80	85	81.7 C
Urea	1 lb. N.	90	80	85	85 C
MCI-55	1.82 lbs	90	90	90	90 C
MCI-55	3.64 lbs	90	90	90	90 C

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

* Single asterisk (*) indicates slight phytotoxicity (yellowing).

KENTUCKY BLUEGRASS MELTING-OUT FUNGICIDE TRIAL - 1985

Hancock Turfgrass Research Center, MSU, E. Lansing, MI

The 1985 Dreschlera poae (formerly Helminthosporium vagans) fungicide trial was conducted at the Hancock Turfgrass Research Center on the MSU campus on Kenblue Kentucky bluegrass maintained at 1 1/2" height of cut. The study was set up in a random block design consisting of three replications/treatment with a plot size of 3' x 6'. All treatments were applied with a CO₂ small-plot sprayer at 30 PSI at a volume of 48 gal/acre.

Treatments were initiated curatively on April 30, 1985 with subsequent applications being made on 14 or 21 day intervals as indicated by the data table. The plots were rated for disease on June 10, 1985, at which time the 14 day treatments had been applied three times and the 21 day treatments had been applied twice.

Disease pressure was relatively light this year due to the warm, dry weather we experienced during the spring season. Under these conditions, the spread between the lowest and highest treatment averages was rather narrow, but most of the compounds tested did give significant disease control, compared to the control.