

## TURFGRASS DISEASE MANAGEMENT REPORT 1987-88

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## SNOW MOLD FUNGICIDE TRIAL - 1987-88

Boyne Highlands Resort, Harbor Springs, MI

The 1987-88 snow mold fungicide studies were conducted at the Boyne Highlands Resort in Harbor Springs, MI, on irrigated Penncross creeping bentgrass (Agrostis palustris)/annual bluegrass (Poa annua) 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 various dates, as indicated on the data table, ranging from October 6 through December 10. The sprayable formulations were applied with a CO<sub>2</sub> small-plot sprayer at 30 PSI and a volume of 48 gal/acre. The granular treatments were pre-weighed and applied by hand. The plots were rated for disease immediately upon snow cover melt-off on April 5, 1988.

As can be seen from the control plot ratings (Table 1), disease pressure was fairly heavy this year with Typhula incarnata being the predominant gray snow mold species (compared to T. ishikariensis in recent years). Most of the standard snow mold fungicides continued to provide consistent control across all replicates. These products include Calo-Clor, Calo-Gran, Proturf FF II, Daconil 2787, and the Daconil 2787 + Tersan 1991 combination. PCNB formulated as a 10% a.i. granular (Turfcide 10G) did not seem to be reliably effective while PCNB formulated as an emulsifiable concentrate (Turfcide 2EC) was effective, although mild to moderate phytotoxicity was noted. A number of experimental compounds (SAN. 619, Rizolex, RH-3486, FBC 39865, Prochloraz) seemed to provide excellent control of gray snow mold and warrant further investigation in future years.

Very little pink snow mold (Fusarium nivale) was present in the plots this year, so no ratings were taken.

## KENTUCKY BLUEGRASS MELTING-OUT FUNGICIDE TRIAL - 1988

Hancock Turfgrass Research Center

The 1988 Dreschlera poae fungicide trial was conducted at the Hancock Turfgrass Research Center on the MSU campus in E. Lansing, MI, on irrigated Kenblue Kentucky bluegrass (Poa pratensis) turf maintained at 1 1/2" height of cut. The study was set up in three replications of a random block design with a 3' x 6' plot size. All treatments were applied with a CO<sub>2</sub> small-plot sprayer at 30 PSI at a volume of 48 gal/acre.

Treatments were initiated preventively on May 11 with subsequent applications being made on 14, 21 or 28 day schedules or as otherwise noted on the data table. The plots were rated on June 18, at which time the 14 day treatments had been applied three times (5/11, 5/25, 6/9), the 21 day treatments had been applied twice (5/11, 5/31) and the 28 day treatments had been applied twice (5/11, 6/9). Disease levels were moderate this year due to early season heat and drought. As the data table (Table 2) shows, the

Table 1. Snow Mold Fungicide Study - 1987-88

Boyne Highlands Resort, Harbor Spring, MI							
Percent plot area infected							
Rating date: 4/5/88							
Treatment	Rate/1000 ft <sup>2</sup>	Applied	I	II	III	Ave	DMR(.05) <sup>e</sup>
Rizolex	3 oz ai	10-31-87	0	0	0	0	H
RH-3486	3 oz ai	10-31-87	0	0	0	0	H
Turfcide EC	1.5 qts	10-31-87	0 <sup>b</sup>	0 <sup>a</sup>	0 <sup>b</sup>	0	H
Turfcide EC + Urea	1.5 qts + 1 lb N	10-31-87	0 <sup>a</sup>	0 <sup>b</sup>	0 <sup>a</sup>	0	H
Prochloraz + SN84364 + X-77	6fl oz + 8oz + .25% v/v	10-31-87	0	0	0 <sup>a</sup>	0	H
Calo-Gran	6 lbs	10-31-87	0 <sup>b</sup>	0 <sup>a</sup>	0 <sup>a</sup>	0	H
Scotts FF II	2x	10-31-87	0 <sup>c</sup>	0 <sup>c</sup>	0 <sup>c</sup>	0	H
Calo-Clor	3 oz	11-16-87	0 <sup>a</sup>	0 <sup>a</sup>	0 <sup>a</sup>	0	H
RH-3486	1.5 oz ai	11-16-87	1	0	0	0.3	H
RH-3486	.75 oz ai	11-16-87	1	0.5	0	0.5	H
SDS64220	same ai rate as D2782 at 8 fl oz	12-10-87	0.5	1	0.5	0.7	H
San 619	2 gm ai	11-16-87	0	3	0	1	H
Rizolex	2 oz ai	10-31-87	1	2	0	1	H
Calo-Clor	3 oz	10-31-87	0 <sup>a</sup>	3	0 <sup>a</sup>	1	H
SDS64220	same ai rate as D2787 at 4 fl oz	12-10-87	2 <sup>d</sup>	0.5 <sup>d</sup>	0.5 <sup>d</sup>	1	H
ICIA 523 + X-77	6 gm ai + .05% v/v	10-31-87	3	0.5	0	1.2	H
SN84364 + X-77	8 oz + .25% v/v	10-31-87	0	3	1	1.3	H
San 619	8 gm ai	10-06-87	2 <sup>a</sup>	2 <sup>a</sup>	0.5 <sup>a</sup>	1.5	H
San 619	8 gm ai	11-16-87	3	2.5	0.5	2	H
Dac 2787 + Tersan 1991	8 fl oz + 2 oz	10-31-87	0	3	3	2	H
Dac 2787	8 fl oz	12-10-87	2	2	3	2.3	H
SDS66518	same ai rate as D2787 at 8 fl oz	12-10-87	4	2	2.5	2.8	H
Rizolex	1 oz ai	10-31-87	5	2	2 <sup>f</sup>	3	H
Dac 2787	4 fl oz	12-10-87	7	0	5	4	H
San 619	4 gm ai	10-06-87	0	5	7	4	H
San 619	2 gm ai	10-06-87	3	10	4	5.7	GH
Scotts FF II	1x	10-31-87	7	15	0	7.3	GH
San 619	4 gm ai	11-16-87	0	2	25	9	FGH
Prochloraz	6 fl oz	10-31-87	6	25	2	11	EFGH
San 619	2 gm ai	10-31-87	17	25.5	1	14.5	DEFGH
PMAS	2 fl oz	10-31-87	5	20	20	15	DEFGH
Lesco Elite	12 oz ai	10-31-87	9	3	40	17.3	CDEFGH
San 619	4 gm ai	10-31-87	15	23	23	20.3	CDEFGH
San 619	8 gm ai	10-31-87	0	26 <sup>c</sup>	35	20.3	CDEFGH
Prochloraz	7.5 fl oz	10-31-87	10	1	50	20.3	CDEFGH
Lesco PCNB	12 oz ai	10-31-87	2	25	35	20.7	CDEFGH

Table 1. Snow Mold Fungicide Study - 1987-88 (cont.)

Treatment	Rate/1000 ft <sup>2</sup>	Applied	I	II	III	Ave	DMR(.05) <sup>e</sup>
FBC 39865	4 oz	10-31-87	0.5	0.5	65	22	CDEFGH
Lesco R1555	.75 oz ai	10-31-87	15	4	50	23	CDEFGH
Lesco R1555	.5 oz ai	10-31-87	7	0.5	67	24.8	CDEFGH
Turfcide 10G	7.5 lbs	10-31-87	75	0	0.5	25	CDEFGH
Turfcide 10G + Urea	7.5 lbs + 1 lb N	10-31-87	50	57	5	37.3	BCDEFG
Cyprex	1 oz ai	10-31-87	12	17	87	38.7	BCDEFG
Lesco R1555	.25 oz ai	10-31-87	27	25	70	40.7	BCDEF
Cyprex	1.3 oz ai	10-31-87	35	75	17	42.3	BCDE
Lesco PCNB	8 oz ai	10-31-87	25.5	40	70	45.2	BCD
Cyprex	.5 oz ai	10-31-87	70	3.5	73	48.8	BC
Lesco Elite	8 oz ai	10-31-87	67	65	57	63	AB
Control	----	----	66	82	92	80	A

a = mild phytotoxicity

b = moderate phytotoxicity

c = greening effect

d = dark green color

e = treatments followed by the same letter are not significantly different from each other at the 5% level

f = disease symptoms very superficial