

Turfgrass Disease Management Report - 1987
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Snow Mold Fungicide Trial - 1986-1987

Boyne Highlands Resort, Harbor Springs, MI

The 1986-87 snow mold fungicide studies were conducted at the Boyne Highlands Resort in Harbor Springs, MI on irrigated Penncross creeping bentgrass (Agrostis palustris) fairways which were mowed at ½" height of cut. Treatments were applied preventively to 6' x 9' plots in three replications of a random block design on November 2, 1986. 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. MF756 was applied only at the 2 highest rates due to a shortage of material. The plots were rated for disease on March 22, 1987 immediately following snow cover melt-off.

As can be seen from the controls (Table 1), disease pressure was very severe 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, PMAS, Scotts F + F II, Daconil 2787 + Tersan 1991), continued to show consistently effective control of all three snow mold organisms (Typhula incarnata, Typhula ishkariensis, Fusarium nivale).

No phytotoxicity was observed.

Kentucky Bluegrass Melting-Out Fungicide Trail-1987

Hancock Turfgrass Research Center

The 1987 Dreschlera poae (formerly Helminthosporium vagans) fungicide studies were 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 1½ height of cut. The study was set up in three replications of a random block design with a 3' x 6' plot size and buffer alleys between the plots. All treatment were applied with a CO₂ small-plot sprayer at 30 PSI at a volume of 48 gal/acre.

Treatments were initiated curatively on May 1 with subsequent applications being made on 14 and 21 day schedules as indicated on the data table (Table 2). The plots were rated on June 15 at which time the 10-14 day treatments had been applied 4 times (5/1, 5/13, 5/26, 6/10) and the 21 day treatments had been applied 3 times (5/1, 5/20, 6/10). Disease levels were low this year because of unusually warm and dry weather during May and June. Daconil 2787 and both formulations of Chipco 26019 continued to work well for control of melting-out, as did a new compound, RH 3486.

No phytotoxicity was observed.

Table 1. Snow Mold Fungicide Trial 1986-1987

Boyne Highlands Resort, Harbor Springs, MI

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

Plots rated 3/22/87

TREATMENT	RATE/1000 ft ²	REP I	REP II	REP III	AVE	DMR ¹
Calo-Clor	3 oz.	0	0	5	1.7	A
Scotts F + FII	2 X	5	10	10	8.3	AB
Calogran	6 lbs.	10	10	15	8.3	AB
MF 755	3.2 oz.	10	10	10	10.0	ABC
Calo-Clor + spring fert.	3 oz + 1/2 #N*	15	5	15	11.6	ABCD
MF 755	9.6 oz.	10	15	15	13.3	ABCD
PMAS	2 fl. oz.	15	5	20	13.3	ABCD
PMAS + Clearspray	2 fl. oz. + 6 fl. oz.	15	15	10	13.3	ABCD
SN 596 + Prochloraz	2 oz. + 6 oz.	2	10	35	15.7	ABCD
SN 596 + SN 84364	2 oz. + 8 oz.	0	30	20	16.7	ABCD
PMAS + Spotrete + Clearspray	2 fl. oz. + 6 fl. oz. + 6 fl. oz.	15	20	15	16.7	ABCD
Daconil 2787(F) + Tersan 1991	8 fl. oz. + 2 oz.	10	25	20	18.3	ABCDEF
Prochloraz	6 fl. oz.	10	15	20	18.3	ABCDEF
PMAS + Spotrete + Clearspray + Fluf	2 fl. oz. + 6 fl. oz. + 6 fl. oz. + 1/2 #N	25	20	15	20.0	ABCDEF
PMAS + Fluf	2 fl. oz. + 1/2 #N	30	20	10	20.0	ABCDEF
Calo-Clor + fall fert.	3 oz. + 1/2 #N*	10	5	45	20.0	ABCDEF
MF 755	6.4 oz.	25	5	35	21.7	ABCDEF
PMAS + Urea	2 fl. oz. + 1/2 #N	35	15	20	23.3	ABCDEF
Scotts F + F II	IX	25	30	15	23.3	ABCDEF
PMAS + Fluf + Clearspray	2 fl. oz. + 1/2 #N + 6 fl. oz.	25	27	30	27.3	ABCDEF
PP 523 (SC) + X-77	4 gm. ai. + .05% v/v	10	45	30	28.3	ABCDEF
Chipco 26019 (F)	2 oz. ai.	45	10	45	33.3	BCDEF
Daconil 2787 (F)	16 fl. oz.	25	25	50	33.3	BCDEF
Mon. 10707	1 oz. ai.	30	30	45	35.0	BCDEF
Mon. 10707	4 oz. ai.	40	25	40	35.0	BCDEF
MF 756	96 oz.	55	35	20	40.0	CDEF
Mon. 10707	.5 oz. ai.	20	30	70	40.0	CDEF
SN 596 (KWG 0519=summit)	4 oz.	60	20	40	40.0	CDEF
Chipco 26019 (W)	2 oz. ai.	50	30	40	40.0	CDEF
Caddy + Clearspray	1 fl. oz. + 6 fl. oz.	25	65	35	41.7	DEF
Daconil 2787 (F)	8 fl. oz.	50	60	30	46.7	EFGH
Mon. 10707	2 oz. ai.	50	55	40	48.3	FGHI

Plots Rated 3/22/87 (cont.)

TREATMENT	RATE/1000 ft ²	REP I	REP II	REP III	AVE	DMR ¹
Lesco PCNB + 16-4-4	6 lbs.	80	35	30	48.3	FGHIJKL
PP523 (SC) + X-77	8 gm. ai. + .05% v/v	70	25	50	48.3	FGHIJKL
PP523 (SC) + X-77	6 gm. ai. + .05% v/v	40	60	50	50.0	GHIJKL
Chipco 26019 (F)	1 oz. ai.	60	50	45	51.7	HIJKL
Chipco 26019 (W)	1 oz. ai.	50	65	55	56.7	IJKLM
SN596 (KWG0519-Summit)	2 oz.	80	35	50	58.3	JKLM
SAN 619	3.5 gm. ai.	95	40	40	58.3	JKLM
Lesco PCNP (10G)	7.5 lbs.	85	35	55	58.3	JKLM
Lesco PCNP + 16-4-4	4 lbs.	75	35	70	60.0	JKLMN
SN 84364	8 oz.	40	80	65	61.7	JKLMN
Cadtete	8 lbs.	85	60	75	73.3	KLMN
Spotrete	6 fl. oz.	85	60	80	75.0	KLMN
Lesco PCNB (10G)	5 lbs.	95	65	70	76.7	KLMN
SAN 619	7 gm. ai.	95	70	80	81.7	MN
CHECK	-	98	90	75	87.7	N
MF 756	64 oz.	25	35	-	20*	only 2 reps

¹Treatments followed by the same letter are not significantly different from each other at the 5% level of significance.

*The fertilizer used in combination with calo-clor was a blend of nitrogen carriers designed to mimic the fertilizer found in Scotts F + F II. The spring fertility was applied on the disease rating date (3/22/87) and these plots were evaluated during the second week of April at which time they showed darker color and more growth than did the Calo-Clor plots or the Calo-Clor + fert. (fall) plots.