

TURFGRASS DISEASE MANAGEMENT REPORT FOR 1985-1986

J. M. Vargas, Jr., R. Detweiler, M. Hendricks,
S. Beiber, T. McNally, and S. Buchner
Department of Botany and Plant Pathology
Michigan State University

Snow Mold Fungicide Trial - 1985-1986

The 1985-1986 snow mold fungicide studies 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, 1985. 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 2, 1986, immediately following snow cover melt-off.

As can be seen from the controls (Table 1), disease pressure was moderately 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, 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).

No phytotoxicity was observed.

Kentucky Bluegrass Melting-out Fungicide Trial - 1986

The 1986 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 May 2 with subsequent applications being made on 14, 21 or 28 day intervals as indicated on the data table. The plots were rated on June 13, at which time the 14 day treatments had been applied three times (5/2, 5/17, 5/30) and the 21 and 28 day treatments had been applied twice (5/2, and 5/24 or 5/30 respectively).

Disease pressure was moderate this year so the treatments were clustered in a relatively narrow range (Table 2). Most of the compounds tested, however, did give significant disease control compared to the controls.

No phytotoxicity was observed.

period in July. Since treatments were applied curatively, there was insufficient time to determine which treatments were effective against the disease. Disease ratings were taken but are omitted from this report because of ununiform disease pressure in the controls and lack of disease control by such standards as Daconil 2787 and Bayleton.

Table 1. Boyne Highlands Snow Mold Fungicide Study - 1985-86

Boyne Highlands Resort, Harbor Springs, MI
Plots rated 4/2/86

Percent plot area infected with all three snow mold organisms

| <u>Treatment</u> | <u>Rate/1000 ft²</u> | <u>I</u> | <u>II</u> | <u>III</u> | <u>Ave. DMR¹</u> |
|-------------------------------|---------------------------------|----------|-----------|------------|-----------------------------|
| Scotts F + FII | 2X | 0 | 1 | 1 | .7 A |
| Calo-Clor | 3 oz | 2 | 1 | 5 | 2.7 AB |
| Daconil 2787 + Tersan 1991 | 8 fl oz + 2 oz | 10 | 0 | 10 | 6.7 ABC |
| Scotts F + FII | 1X | 5 | 15 | 5 | 8.3 ABCD |
| Calo-Gran SN 84364 | 6 lbs | 10 | 2 | 15 | 9.0 ABCD |
| + Prochloraz | 5 oz + 7 fl oz | 15 | 10 | 2 | 9.0 ABCD |
| Rizolex WP | 6.5 oz ai. | 10 | 7 | 20 | 12.3 ABCDE |
| PMAS | 2 fl oz | 15 | 5 | 20 | 13.3 ABCDE |
| Rizolex WP | 3.3 oz ai. | 5 | 15 | 30 | 16.7 ABCDE |
| Rizolex FL | 1.6 oz ai. | 10 | 2 | 40 | 17.3 ABCDE |
| Rizolex FL | 3.3 oz ai. | 10 | 20 | 30 | 20.0 ABCDE |
| Rizolex FL | 4.9 oz ai. | 25 | 20 | 15 | 20.0 ABCDE |
| Rizolex FL | 6.5 oz ai. | 35 | 10 | 20 | 21.7 ABCDE |
| PMAS + Fluf | 2 fl oz + 1/4 lb.N. | 30 | 20 | 15 | 21.7 ABCDE |
| Rizolex WP | 4.9 oz ai. | 10 | 30 | 30 | 23.3 BCDE |
| PMAS + Fluf | 2 fl oz + 1/2 lb.N. | 25 | 25 | 30 | 26.7 CDEF |
| Rizolex WP | 4.9 oz ai. | 7 | 30 | 50 | 29.0 DEFG |
| PMAS + Urea | 2 fl oz + 1/2 lb.N. | 15 | 20 | 60 | 31.7 EFGH |
| BRC 916 + X-77 | 4 gm ai. + .05% | 30 | 60 | 45 | 45.0 FGHI |
| SN 843664 + X-77 | 7 oz + .05% | 40 | 60 | 50 | 50.0 GHIJ |
| BRC 916 + X-77 | 2 gm ai. + .05% | 15 | 50 | 90 | 51.7 HIJK |
| SN 84364 | 4.8 oz | 40 | 60 | 60 | 53.3 IJK |
| SN 84364 | 6 oz | 55 | 40 | 75 | 56.7 IJKL |
| PP 450 | 2 gm ai. | 60 | 60 | 60 | 60.0 IJKL |
| Control | -- | 70 | 80 | 50 | 66.7 JKL |
| SN 84364 + X-77 | 5 oz + .05% | 70 | 50 | 85 | 68.3 KL |
| PP 450 | 4 gm ai. | 60 | 80 | 80 | 73.3 L |
| NC 28410 | 10 fl oz | 80 | 60 | 90 | 76.7 L |

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