

A REPORT IN CONNECTION WITH THE MGCSA RESEARCH PROGRAM
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EVALUATION OF SNOW MOLD FUNGICIDES - 1974

INTRODUCTION

Snow mold fungi in Minnesota are generally classed as grey and pink, however, diversity of fungi have been observed in snow mold areas. Thus, the screening of standard and experimental compounds alone are in mixes in search of more effective fungicides began at this research station and at test plots through the State (Test plots are located at Bemidji, Duluth, Alexandria, St. Paul, Mendota, Redwood Falls and Rochester). Lacking a universal panacea the professional manager does have a substantial list of chemicals to apply for snow mold control. The standard material, mercury, may be placed on the restricted list and/or made unavailable for disease control, thus the need to evaluate the effectiveness of commercially available fungicides and certain tank mixed combinations against the snow mold complex in Minnesota.

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SUMMARY SNOW MOLD 1973-1974

Snow mold pressure was lightest at Rochester where Caloclor, Cadminate, Tersan SP and any other products mixed with Tersan SP performed well. Eight ounces of Actidione-thiram does not provide protection even in areas where disease pressure is low. Actidione-thiram plots generally have 2-5 mm of tip burn and may have diseased areas reduced by about 50%. Plots at Mendota and Duluth indicate spotty control with Caloclor and unsatisfactory performance of Tersan SP at both 6 and 9 oz/T. Adding Actidione-thiram to Tersan SP improved performance at Duluth while it did not change the control greatly at Mendota. Granules in every plot but Rochester failed to satisfactorily control snow molds. No numbered materials appear to offer much promise; however PCNB again performed fairly well.

After viewing the snow mold test plot data and culturing several of the organisms I can report that in 1974 I found Sclerotinia patch caused by Sclerotinia borealis on two golf courses in northern Minnesota at Duluth and Bemidji. I suspect this organism is also active in the Twin Cities. The symptoms on 'Penncross' bent grass immediately after the snow melts, are dark, gray spots, 2-4 inches in diameter. The grass plant appears to be water-soaked. A dark gray mycelium may be seen growing near the other margin of the spot. Several spots may coalesce and many small dull-gray to black sclerotia are embedded in and on the leaf axils and shoot bases. These sclerotia do not look like Typhula sclerotia. This disease seems to be more severe in areas where snow cover is slowest to melt.

(In addition to this article Dr. Stienstra submitted a chart showing Materials, Dosages and Locations tested. Treatment Rate/T, Average Percent Disease at Location at all of the Test Plots except Alexandria. Due to lack of space we are unable to include the chart in this issue. However, please retain this article and the chart will be shown in the January issue).