

## **CURRENT RESEARCH ON PREDICTING PINK SNOW MOLD**

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Research is underway to identify environmental factors associated with the onset of pink snow mold/*Microdochium* patch. Once we determine the specific factors that are necessary for this disease to occur we will then be able to: properly time fungicide applications for improved control, reduce the number of total sprays needed, thus saving you money, and reduce environmental inputs. Currently the only estimation of when to treat preventively for this disease is based on the calendar time of year. Many superintendents apply multiple applications of fungicides in the hope of providing protection from this disease that may be present or that which may occur later under snow cover. Our objective is to provide weather based spray recommendations to replace the current calendar based method of spraying.

To identify the environmental factors that are responsible for a disease outbreak we have closely monitored conditions during the snow mold season. At the Hancock Turfgrass Research Center in East Lansing, MI we have installed a weather data logger that measures leaf wetness, soil temperature, soil moisture, air temperature, and relative humidity. Our fall 2000 and spring 2001 research findings have identified a narrow window of conditions that must be met in order for an epidemic of pink snow mold to occur. The conditions that we have identified for our model will be simple for superintendents to measure and thus will be easily incorporated into their decision of whether or not to spray. During the 2001-02 season we will be repeating our close monitoring of how weather affects disease emergence and progression. Other interesting fieldwork has included mapping the location and spread of disease on bentgrass and bentgrass/*Poa annua* greens. Our mapping project has identified which grass species is affected more by pink snow mold.

During the 2001-02 field season we will be conducting fungicide timing studies to determine how spray timing correlates to weather factors. At three locations, on both greens and fairways, we have applied weekly treatments of the same fungicide to different plots from early October through late November. The purpose of applying these treatments is to have a control in place for every week of the fall so that we can observe which weeks provided the best control and then determine how weather factors may have played a role in disease occurrence. Another control product we are evaluating is the use of anti-transpirants. Anti-transpirants are simply wax-like products that can be sprayed on the turf and can possibly reduce disease by providing a physical barrier to infection, and they also reduce leaf wetness/dew that may discourage pathogen development.