

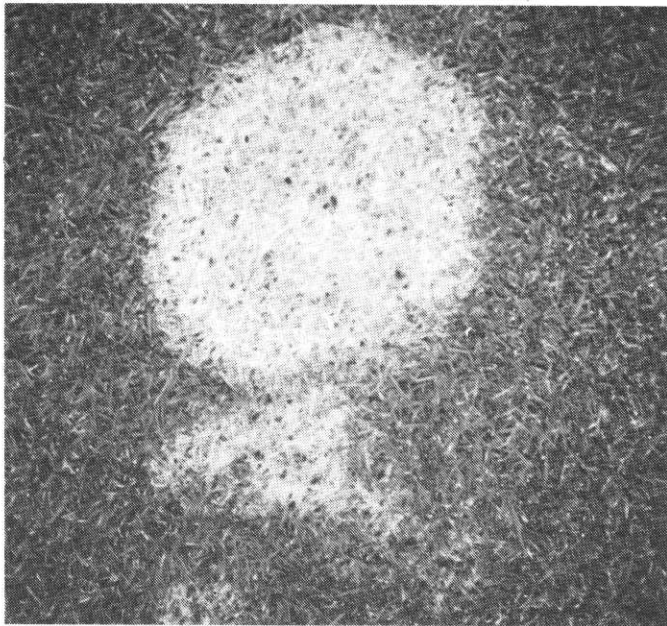
# An Alternative for Snow Mold Control

With fall upon us, we again think about winter and the process of winterizing our spray equipment. However, before this can be done, we must consider the application of a fungicide for snow mold control.

In areas of permanent snow cover, gray snow mold or typhula blight caused by *Typhula incarnata* or *Typhula ishikarensis* is a very destructive disease of turfgrass. Susceptible turfgrass species are bentgrass, annual bluegrass, fescues and perennial ryegrass.

Although permanent snow cover on the ground for several months is necessary for the typhula blight to develop, other conditions that stimulate cover, such as leaves, mulch, and desiccation covers, can cause the same effect.

The gray snow mold fungus can grow at freezing temperatures. Growth and infection of the turfgrass are generally between 30°F and 50°F. Gray snow mold is worse when snow falls on unfrozen turfgrass that has not been hardened by frost. However, when snow occurs on frozen ground, the disease usually develops only in the spring when the snow melts.



When the snow melts in the spring, the typhula blight fungus can be seen with the naked eye as sclerotia. These spores will eventually dry up and no longer be visible. The sclerotia is the dormant stage of this disease, and is how the typhula blight fungus overwinters. These sclerotia are resistant to warm temperatures and the fungicides used in a summer spray program. In the fall, the sclerotia will swell, germinate and produce spores under cool, wet weather.

Pink snow mold, *Microdochium nivale* (formally *Fusarium nivale*), is also a devastating turfgrass disease in regions that have long periods of cool wet weather or frequent snow falls and melts. This disease organism does not need a permanent snow cover to germinate and infect the turfgrass. Pink snow mold can be observed in the late fall through spring if weather favors germination and growth of the spores.

Fungicide treatments used for snow mold control are longer

lasting than similar treatments made to control summer diseases. This is because in snow mold applications the fungicides are not removed through mowing as the turf grows. Single applications usually provide winter long control providing that permanent snow cover is maintained until spring. Mid-winter thaws can dissipate fungicide efficacy due to exposure to sunlight, wind, and rain and can also accelerate snow mold growth. If a thaw occurs, a second fungicide application is recommended to maintain turf protection until spring greenup.

Cultural management of these diseases should always be considered in a control program. Be aware of conditions that favor disease development in the late fall and winter months, such as poor drainage, excessive thatch, high nitrogen fertility and high relative humidity. Remember, both gray and pink snow molds can occur in the same location.

Chemical control of gray and pink snow mold can be achieved with a tank mix combination of CHIPCO® 26019 (FLO) + Daconil 2787® Flowable at 8 + 8 fl. oz./1000 ft<sup>2</sup> or the CHIPCO® 26019 (WP) + Daconil 2787® Flowable at 4 oz. + 8 fl. oz./1000 ft<sup>2</sup>. This tank mix application should be timed close to the first snow cover. A second application should be applied to the turfgrass when a mid-winter thaw occurs. Use 2 gallons of water per 1000 ft<sup>2</sup> as a carrier.

Both CHIPCO® 26019 and Daconil 2787® have activity on the gray and pink snow mold organisms. However, a combination of the two products results in increase control of these diseases. In regions of the United States that experience only pink snow mold, CHIPCO® 26019 (FLO) alone at 4 - 8 fl. oz. or the wettable powder formulation at 2 - 4 oz./1000 ft.<sup>2</sup> will provide very good disease control.

Confidence in the tank mix of CHIPCO® 26019 + Daconil 2787® for snow mold control has been proven with over a decade of research data from turfgrass pathologists at Michigan State, Rutgers, University of Massachusetts and other universities.



Treated vs. untreated. Lakewood Golf Club in Oscoda, Mich., April 1990.