

Maximizing Snow Mold Control

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With the coming of fall, we again think about winterizing our spray equipment. But even before this is done, it is important to consider whether or not a fungicide application is needed for snow mold control.

Gray Snow Mold

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

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

The gray snow mold fungus generally grows and infects turfgrass when temperatures range between 30-50 degrees Fahrenheit. The effects of gray snow mold are worst when snowfall occurs on unfrozen turfgrass which has not yet been "hardened" by frost. When snowfall occurs on frozen ground, the disease usually does not develop until the following spring, when snow begins to melt.

As this snow melts during 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, which are the dormant state of this disease, allow the typhula blight fungus to survive over the summer. They are resistant to warm temperatures as well as the fungicides used in summer spray programs. With the coming of cool, wet weather during the fall, these sclerotia will swell, germinate and produce new spores.

Pink Snow Mold

Pink snow mold (*Microdochlum nivalis*—formerly *Fusarium nivale*), is also a devastating turfgrass disease in regions that have long periods of cool wet weather with frequent "snow-falls" and "snow-melts." This disease organism does not need a permanent snow cover to germinate and infect 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 with snow mold applications, the fungicides are not removed through mowing as the turf grows. In fact, single applications usually provide winter-long control, assuming that permanent snow cover is maintained until spring. Mid-winter thaws can dissipate fungicide efficacy due to exposure to sunlight, wind, and rain. They can also accelerate snow mold growth. If a thaw does occur, a second fungicide application is recommended to maintain turf protection until spring "green-up."

Cultural and Chemical Control

Cultural management of these diseases should always be considered in any control program. Be particularly aware of conditions that favor disease development during the late fall and winter months, such as poor drainage, excessive thatch, high nitrogen fertility and high relative humidity. Also, keep in mind that 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 FLO at 8 + 8 fl. oz./1,000 ft.² Alternatively, apply CHIPCO® 26019 WP + Daconil® 2787 FLO at 4 oz. + 8 fl. oz./1,000 ft.² 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.

Both CHIPCO® 26019 and Daconil® 2787 have activity on gray and pink snow mold organisms. However, a combination of the two products results in increased control of these diseases. In regions of the U.S. which experience only pink snow mold, CHIPCO® 26019 FLO alone at 4-8 fl. oz./1,000 ft.², or the wettable powder formulation at 2-4 oz./1,000 ft.² will provide very good disease control.

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

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