

# Guarding Against Winter Turf Diseases

By Helen M. Stone

Winter is a time for dormancy. Even in the warm-climate zones of the country, plant growth slows or stops. But even as turf "sleeps," an insidious enemy lurks beneath blankets of snow. *Typhula* blight, or gray snow mold, may come as an unwelcome surprise when the warmer temperatures of spring reveal discolored and/or dead patches of turf up to two feet across. In areas where there is no snow, but long periods of cool, wet weather is the norm, turf managers are often faced with pink snow mold.

### Gray Snow Mold

There are two pathogens that produce gray snow mold. *Typhula incarnata* occurs in the Eastern states, while *T. ishkariensis* affects turfgrass stands west of Michigan. The blight targets almost all cool season grasses, including annual and Kentucky bluegrass, tall and fine-leaf fescue and perennial ryegrass. Although the disease is normally found under snow, it also can occur under leaves or mulches. The blight is more serious where snow is gathered in deep drifts or when it melts slowly in the spring.

Gray snow mold appears as patches anywhere from three inches to two-feet across, although six- to 12-inch patches are the most common. The patches are covered with a gray or white growth of mycelium (a fungal structure consisting of multi-branched, thin "tubes"). The mycelium and dead grass plants often mat together, and the patch may be surrounded by a fluffier ring of mycelium.

If you examine the grass blades closely, you should be able to detect small sclerotia (closely-packed mycelium awaiting ideal conditions to germinate; a sort of "fungus seed").

The first step to controlling gray snow mold is proper fertilization. Turf that goes into cold weather with lush new growth induced by large quantities of nitrogen is especially susceptible to the blight. Although late fall fertilization can give turf a jump-start when the weather warms up in spring, be sure the fertilizer is applied after the grass plants are dormant.

If you are in the position to select turfgrass cultivars for new plantings, there are resistant varieties that will minimize infection.

Chemical control is dependent on identifying which type of pathogen you are dealing with. *Typhula incarnata* can be treated with chloroneb (Termec SP, Proturf Fungicide V), fenarimol (Rubigan), triadimefon (Bayleton, Scotts Fungicide VII) and propiconazole (Banner). However these fungicides are not as effective on *T. ishkariensis*. Combining iprodione (Chipco 26019, Rovral, Scotts Fungicide X) and chlorothalonil (Daconil 2787) will control both types of *Typhula* blights, as well as controlling pink snow mold as well. Application is made before the first permanent snow cover. Some manufacturers also suggest a second application during a mid-winter thaw.

### Pink Snow Mold

While pink snow mold is sometimes found in combination with gray snow mold, its range stretches much further south. It is one of the most serious diseases facing turf managers in the Pacific Northwest, but can occur anywhere where cool, wet weather continues for an extended period of time. Pink snow mold, or *Microdochium* patch (formerly known as *Fusarium nivale*), can kill

annual bluegrass, bentgrass and perennial ryegrass. Kentucky bluegrass and red fescue are also affected, but with less severity.

Pink snow mold differs from *Typhula* blight because it does not necessarily need snow or other cover to flourish. Symptoms include spots ranging anywhere from one-inch in diameter to eight inches or larger. Turf turns reddish-brown in the affected areas. Usually where there is no snow cover, mycelium are not seen. In areas with snow, the pink mycelium can be seen at the edges of the infected patches after snow melt.

As with gray snow mold, turfgrass is more susceptible to *Microdochium* patch when it is lush. Therefore, be careful not to encourage growth with nitrogen going into the winter months. Since the pathogen survives as mycelium and spores on thatch, controlling thatch, (i.e., vertical mowing, correcting soil pH, supplying adequate fertility and topdressing) can also aid in controlling the disease.

Many of the fungicides that control gray snow mold also work on *Microdochium* patch. Additional choices include benomyl (Tersan 1991), mancozeb (Fore, Formec 80), PCNB (Terraclor 75, Scotts F + F, Turfcide II and Pennstar), thiram (Tersan 75, Spotrete, Thirmad) and thiophanate methyl (Fungo 85, Clearys 3336). Fungicides should be applied before the first permanent snow cover. In areas with no snow, they can be used on either a preventative or curative basis. Be sure to read and follow label instructions at all times.

If snow mold is a problem in the turf you manage, the time to control it is now. By planning ahead, you can avoid any unpleasant surprises when the snow finally melts next spring. □