
THE SNOW MOLDS

UMass
Extension

CENTER FOR AGRICULTURE

Snow mold refers to a group of diseases that occur in cool to cold weather and are favored by snow cover. The principal diseases are *Microdochium* patch and *Typhula* blight.

Microdochium patch caused by *Microdochium nivale* (formerly *Fusarium nivale*) is commonly referred to as pink snow mold due to the occurrence of spores in a pink matrix of mycelium and sporodochia (fruiting bodies) under moist and sunny conditions. The disease is not confined to snow-covered turf, but can occur year-round in cool, humid areas. The pathogen damages almost all species of grass and often occurs together with other cold weather diseases. Symptoms develop following long periods of cool, wet weather and first appear as small water-soaked spots which turn orange brown to dark reddish brown before fading to light gray or tan. The spots are usually less than 8 in. in diameter with a water-soaked, gray black margin. Under snow cover or in very wet conditions, spots may be covered with a fluffy white mycelium. As the snow melts, spots appear bleached white to tan, often with a pink margin.

M. nivale survives unfavorable periods in plant debris and infected plants. The pathogen grows rapidly under overcast, wet conditions and temperatures ranging from near freezing to 60° F. Conidia and infected debris are transported to healthy areas on equipment and shoes. *Microdochium* patch is most severe in excessively thatched turf that is growing slowly and under snow covering unfrozen soil. It is favored by repeated frosts, cold fogs, slow, drizzling rains, high nitrogen levels, and matted foliage. The disease becomes inactive during warm, sunny periods and when there is little surface moisture.

Typhula blight caused by *Typhula incarnata* and biotypes of *T. ishikariensis* are also called gray snow mold due to the characteristic gray white mycelium that appears at snowmelt. This is the most common snow mold in residential lawns. The disease occurs where snow cover is present throughout the winter and infects all turfgrasses. Symptoms appear after snowmelt as circular patches, 1 ft to 3 ft in diameter, of yellow, straw colored, or gray brown turf. Individual leaves are matted and often covered with a gray white mycelium which disappears as the grass dries. The leaves become grayish to silvery white, brittle, and matted. Large areas of turf may be killed, but more often only the leaves are killed and regrowth occurs from the plant crowns. These fungi produce sclerotia, small, hard, round structures, visible to the naked eye, on infected leaves. Size, color, and shape of sclerotia are used to identify species of *Typhula*.

Typhula species survive the summer as sclerotia which germinate when exposed to wet, cool conditions in late fall to form fruiting bodies (sporocarps) or mycelium. The pathogens grow well at temperatures near freezing and under snow covering wet turf in unfrozen soil. The disease is favored by deep snow that prevents the soil from freezing, increases relative humidity within the turf canopy, and mats the grass leaves as well as high nitrogen levels which promote succulent growth.

Cultural Management

- Avoid heavy applications of nitrogen in late fall. Apply fertilizer a few weeks before dormancy. Slow release forms are recommended for fall fertilization. As a rule of thumb, no nitrogen should be applied after the first frost.
- Continue to mow the grass until growth ceases to prevent a tall canopy.
- Avoid excessive thatch.
- Reduce compaction of snow by snowmobiles, skis, and animals.
- Prevent the formation of large snowdrifts by proper placement of snow fences, wind barriers, or similar structures.
- Promote rapid drying and warming in the spring by snow removal and improving drainage.
- Promote new growth in the spring with light fertilization.
- Reseed affected areas if regrowth does not occur.
- Maintain a low soil pH and high levels of potassium to discourage Microdochium patch.

Management with Fungicides

Fungicide programs for snow molds are complex and in the vast majority of cases are practical only for high value turf such as that found on golf courses and premier athletic fields. Fungicide applications targeting snow molds are seldom indicated or productive in a residential setting.

--

Written by: [M. Bess Dicklow](#)

Revised: 05/2011

**UMass
Extension**

CENTER FOR AGRICULTURE

UMass Extension is an equal opportunity provider and employer, United States Department of Agriculture cooperating. Contact your local Extension office for information on disability accommodations. Contact the State Extension Director's Office if you have concerns related to discrimination, 413-545-4800 or see www.umassextension.org/civilrights.