

Gray Snow Mold

[*Typhula incarnata* & *Typhula ishikariensis*]

SYMPTOMS

Gray snow mold is caused by two species of *Typhula*: *T. incarnata* and *T. ishikariensis*. This is a true snow mold in that it requires extended periods of snow cover, at least 60 days, in order to develop. Symptoms of gray snow mold develop under snow cover and become evident as soon as the snow begins to melt. The disease appears in perfect circles or irregular patches up to 3' or more in diameter. The turf within these patches is white or gray and matted together. Examination of the diseased plants reveals tiny tan or brown pea-like structures (sclerotia) on the infected leaves or imbedded within them. Gray snow mold is most severe when heavy snow falls on unfrozen ground. In severe cases, gray snow mold can kill large areas of turf, and recovery can be extremely slow.



gray snow mold

Characteristic	Description
Host Grass Species	bentgrass, bluegrasses, fescues, ryegrass
Month(s) with symptoms	February to May
Stand Symptoms	circles
Foliar Symptoms - Location/Shape	blighting of entire leaves
Foliar Symptoms - Color	white
Root/Crown Symptoms	none
Fungal Signs	round sclerotia

Note: Still not sure if this is the right disease? The [Turfgrass Disease Identification](#) program may be helpful. Or consult the experts at the [Turf Diagnostics Lab](#). Check the TurfFiles [glossary](#) for definitions of unfamiliar terms.

FACTORS AFFECTING DISEASE DEVELOPMENT

The gray snow mold pathogens survive the summer as sclerotia in the thatch and soil. Sclerotia germinate in the fall when temperatures are between 50°F and 65°F, yielding spores and mycelium that cause new infections. Gray snow mold is most severe when the temperature of the turf surface is maintained at or above freezing for extended periods. Heavy snow accumulations on unfrozen ground or accumulations of leaves or mulch provide ideal conditions for disease development. Excessive nitrogen fertilization, infrequent mowing, or high mowing heights going into winter also enhance disease by providing a dense, lush canopy for the pathogen to attack.

CULTURAL CONTROL

Do not apply nitrogen when cold weather is expected or before the first expected prolonged snow cover. Continue mowing in the fall until foliar growth stops completely. These steps will prevent a buildup of lush foliage that is highly prone to gray snow mold.

Improve surface drainage, control traffic patterns, reduce thatch accumulations, and aerify regularly in areas that have been severely affected by the disease in the past. Prune trees and remove unwanted vegetation that impedes air movement. Frequently remove leaves and other debris during autumn and winter from turf that is not covered with snow.

In regions where heavy snow is anticipated, take steps to minimize the duration of snow cover. Erect snow fences or plant landscape plants in strategic locations to prevent excess snow accumulation. Prevent traffic on snow-covered turf, as compacted snow will melt more slowly and increase damage from gray snow mold.

CHEMICAL CONTROL

Where gray snow mold is a persistent problem, preventative fungicide applications should be made prior to snowfall. Quintozene (PCNB) fungicides are highly effective for control of all snow mold species, but the availability of these fungicides is questionable due to environmental concerns. Where PCNB cannot be used, tank-mixtures of multiple fungicide chemistries are necessary to control all snow mold species. Combinations of chlorothalonil + iprodione, chlorothalonil + thiophanate-methyl, or chlorothalonil + fludioxonil + azoxystrobin are commonly recommended.

Note: Recommendations of specific chemicals are based upon information on the manufacturer's label and performance in a limited number of trials. Because environmental conditions and methods of application may vary widely, performance of the chemical will not always conform to the safety and pest control standards indicated by experimental data. The order in which brand names are given is not an indication of a recommendation or criticism.

Recommendations for the use of agricultural chemicals are included in this publication as a convenience to the reader. The use of brand names and any mention or listing of commercial products or services does not imply endorsement by North Carolina State University or discrimination against similar products or services not mentioned. Other brand names may be labeled for use on turfgrasses. Individuals who use agricultural chemicals are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Be sure to obtain current information about usage regulations and examine a current product label before applying any chemical. For assistance, contact your county's Cooperative Extension agent.

Useful links:

Glossary: <http://www.turffiles.ncsu.edu/Glossary.aspx>

Turf Diagnostics Lab: <http://ncstateturfdiagnostics.com/TDL/Home.html>

Turfgrass Disease Identification Program: <http://www.turffiles.ncsu.edu/diseaseID/>

Turfgrass Disease Management Program: <http://www.turffiles.ncsu.edu/diseasemgmt/>

Turf Irrigation Management System: <http://www.turffiles.ncsu.edu/tims/>

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