

# Snow Mould

## The problem

Pink and grey snow moulds are devastating turf diseases that occur on golf course putting greens, tees, fairways, and roughs in the presence of snow cover. These diseases are not only unsightly in the spring but can negatively impact turf health and make surfaces unplayable. Both pink and grey snow moulds can affect all cool-season turfgrasses but tend to be more problematic on annual bluegrass and bentgrasses.

## What to look for

Pink snow mould, caused by *Microdochium nivale*, occurs in cold (0-10 °C), wet weather with intermittent periods of snow cover (less than 60 days). Extended snow cover often insulates turf surface from freezing temperatures, allowing the disease to develop rapidly. Symptoms are visible at snow melt as tan patches 5–30 cm in diameter with a pink border. The affected areas change in colour to a whitish grey with leaves taking on a bleached appearance. Individual patches may coalesce, resulting in extensive damage to the turf.

Grey snow mould, caused by *Typhula sp.*, is active at 0–5 °C with extended snow cover (greater than 60 days). Symptoms appearing at snow melt are light yellow to grey discoloured areas ranging from 7–30 cm or more in diameter. Matted turf progresses quickly to a greyish-white colour. As patches enlarge, a 1-inch halo of greyish-white mycelial growth can appear at the surrounding

margin. Individual patches may coalesce to form large affected areas. The key diagnostic feature is the presence of small, round, hardened sclerotia (chestnut brown for *Typhula incarnata* and black for *Typhula ishikariensis*). Pink snow mould can be distinguished from grey snow mould by the absence of these characteristic sclerotia.

## Envu solutions

Implementing proper cultural practices will assist in reducing disease severity. Management strategies include: avoiding late fall fertilization that leads to lush growth, controlling excessive thatch, removing tree leaves from the turf, controlling drifting snow and removing snow/improving drainage to promote rapid drying in the early spring.

Pre-snow preventive applications are critical for protecting vulnerable turf areas from snow mould. While disease symptoms develop under snow cover, the infection process for pink and grey snow moulds can begin during the fall. An application during this time period prior to final snow mould application has been shown to reduce disease severity the following spring. After your last mowing of the season but prior to snow cover, a final fungicide application is needed. Products or mixtures containing two to three different active ingredients like Dedicate® Stressgard® have been shown to provide exceptional snow mould control.

Solution	Rate per 100 m <sup>2</sup>	Application interval* (days)
Dedicate® Stressgard®	32–64 mL	Make 1 to 2 applications in the fall in areas that receive < 100 days of snow cover
Mirage® Stressgard®	30–60 mL*	1–2 applications late fall at 1–28 day intervals before snow cover
Compass® 50 WG	3.8–6.1 g**	Late fall before snow cover or early spring after snow melt

\*Best as a cleanup application – must be tank mixed with other products for complete control.

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The following table shows recommended products or mixtures for greens, tees and fairways based on the type of snow mould and length of snow cover expected.\*

	Less than 90 days (pink)	90 to 150 days (pink + grey)
Greens and tees	Dedicate® Stressgard® (48–64 mL)	Dedicate® Stressgard® (64 mL) + fludioxinil
Fairways	Dedicate® Stressgard® (32–64 mL)	Dedicate® Stressgard® (48–64 mL) – 2 fall applications

\*See fungicide labels for complete details. Always read and carefully follow label instructions.



**Grey snow mould symptoms with fungal mycelium around margin of infection.**

Photo: Jesse Benelli, Envu



**Pink and grey snow mould symptoms in a research plot.**

Photo: Travis Russell, Envu



**Snow mould symptoms showing bleached-out dead turf after snow melt.**

Photo: Travis Russell, Envu



**Blighted turf showing small dark sclerotia of *Typhula ishikarensis* (grey snow mould).**

Photo: Frank Wong

To talk about your specific needs or to learn more about our solutions, please contact an Envu representative.

