



BAYER SOLUTIONS

Snow Mould

The Problem:

Pink and gray snow moulds are devastating turf diseases that occur on golf course putting greens, tees, and fairways in the presence of snow cover. These diseases are not only unsightly in the spring but can leave the turf surfaces unplayable. Both pink and gray 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). 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 gray with leaves taking on a bleached appearance. Individual patches may coalesce resulting in extensive damage to the turf.

Gray snow mould, caused by *Typhula* sp., is active at 0-5°C with extended snow cover (greater than 80 days). Symptoms appearing at snow melt are light yellow to gray discoloured areas ranging from 7-30 cm or more in diameter. Matted turf progresses quickly to a grayish-white colour. As patches enlarge, a one-inch halo of grayish-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 gray snow mould by the absence of these characteristic sclerotia.

Bayer 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.

A pre-snow preventive application is critical for protecting vulnerable turf areas from snow mould. While disease symptoms develop under snow cover, sclerotia begin to germinate in the fall at 10-18°C. An additional application during this time period 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 2-3 different active ingredients like Trilogy Stressgard™ and Interface Stressgard™ have been shown to provide exceptional snow mould control.

Snow Mould Solutions

SOLUTION	RATE	APPLICATION INTERVAL
Trilogy Stressgard™	100 - 177 mL	Late fall before snow cover and during mid-winter thaw
Interface Stressgard™	95 - 160 mL	Late fall before snow cover in areas that receive < 90 days snow cover
Mirage Stressgard®	30 - 64 mL*	1 - 2 applications late fall at 14 - 28 day intervals before snow cover
Compass 50WG®	3.8 - 6.1 g**	Late fall before snow cover or early spring after snow melt

* Best as a clean-up application, must be tank mixed with other products for complete control

**Best as clean-up application, should be tank mixed with other chemistries for complete control

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 60 DAYS (PINK)	60 TO 149 DAYS (PINK + GRAY)	150 DAYS OR MORE (GRAY)
Greens & Tees	Interface Stressgard – 128 - 160 mL Or Trilogy Stressgard – 100 mL	Trilogy Stressgard 100 - 177 mL	Trilogy Stressgard 177 mL
	LESS THAN 90 DAYS (MAINLY PINK)	90 DAYS OR MORE (MAINLY GRAY)	
Fairways	Interface Stressgard – 128 - 160 mL Or Trilogy Stressgard – 100 mL	Trilogy Stressgard 100 - 177 mL	

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



Gray snow mould symptoms with fungal mycelium around margin of infection. Photo: Derek Settle, Bayer.



Snow mould symptoms showing bleached-out dead turf after snow melt. Photo: Paul Giordano, Bayer.



Pink and gray snow mould symptoms in a research plot. Photo: Frank Wong, Bayer.



Blighted turf showing small dark sclerotia of *Typhula ishikarensis* (gray snow mould). Photo: Frank Wong, Bayer.