

## Typhula Blight (Gray Snow Mold)

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Typhula blight is an important disease in regions where snow cover remains on the ground for three months or more without melting. It may be found in combination with another disease called Fusarium patch (pink snow mold), but unlike Fusarium patch which occurs with or without snow cover, some type of cover is necessary for Typhula blight. This cover is usually provided by snow; but leaves, straw mulch and desiccation covers can cause the same effect.

### Symptoms

The Typhula blight fungus grows and infects grass at temperatures between 30 and 50 degrees F. As the snow melts, circular grayish straw-colored to dark brown spots appear in the turf (Fig. 1). The spots range from three inches to two feet in diameter, but most are between six and twelve inches across. As the snow melts, the grayish white mycelium (fungal strands) can be seen, especially at the outer margins of the spots. Typhula blight is worse in winters when snow falls on unfrozen turf that has not been hardened by frost. When snow falls on frozen ground, the disease usually develops only in the spring, when the snow begins to melt.

### Occurrence

Typhula blight in Michigan is most commonly caused by *Typhula incarnata*. The Typhula fungus survives the summer as sclerotia (dormant stage). In early spring, as the snow melts, the sclerotia may be as large as  $\frac{3}{16}$  of an inch and visible to the naked eye (Fig. 2). Later, they dry up and are no longer detectable. The sclero-



Figure 1: Typical gray snow mold diseased area showing the gray mycelium (fungal strands) at outer margins.



Figure 2: Close-up of gray snow mold sclerotia as seen in early spring.

tia are resistant to warm temperatures and fungicides that are part of summer disease control programs. During cool, wet, fall weather, the sclerotia swell and germinate, and produce spores which are carried by wind and water to new sites.

## Cultural Management

Typhula blight is more severe if the turf is lush going into the winter. Depending on the area, the last nitrogen application on actively growing turf should be made sometime between mid-August and mid-September. This should not be confused with dormant nitrogen feeding, which is nitrogen application after the top growth has stopped. Dormant feedings promote early green-up in the spring and favor quick recovery of turf damaged by snow mold. Whenever possible, fungicides should be applied to turf receiving dormant nitrogen feedings.

## Resistant Varieties

All creeping bentgrass cultivars are susceptible to Typhula blight and require some type of fungicide treatment. The fine leaf fescues and Ken-

**Table 1. Recommended fungicides for the management of Typhula blight.**

Common Name	Trade Name	Manufacturer
Cadmium chloride	Caddy Cad-trete	W. A. Cleary W. A. Cleary
Cadmium succinate	Cadimate	Mallinckrodt
*Calo-Clor	Calo-Clor	Mallinckrodt
*Calo-Gran	Calo-Gran	Mallinckrodt
Chloroneb	Tersan SP	E. I. duPont
Cycloheximide + PCNB	Acti-dione RZ	Upjohn
Pentachloronitrobenzene (PCNB)	Lawn Disease Preventer Proturf FFII Turfide	O. M. Scott O. M. Scott Olin Corp.
*Phenylmercuric Acetate + Thiram	Proturf Broad Spectrum Fungicide	O. M. Scott

\*Registered for use on winter diseases on golf course greens only.

tucky bluegrasses are, in general, more resistant to Typhula blight than are annual bluegrasses, creeping bentgrass and perennial ryegrass.

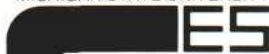
## Chemical Management

Chemical management of Typhula blight is necessary on all annual bluegrass and creeping bentgrass putting greens. Table 1 lists recommended fungicides for the management of

Typhula blight. PCNB is phytotoxic to some bentgrasses. Chloroneb is not effective against Fusarium patch, so in areas where both Typhula blight and Fusarium patch occur, or where Fusarium patch is the main problem, other fungicides must be used in combination with Chloroneb.

**NOTICE:** Always use pesticides carefully. Follow label directions and avoid misuse. Any use of a pesticide inconsistent with the label is illegal.

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