

Helminthosporium Melting-Out and Leafspot of Lawn Grasses

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Helminthosporium melting-out (*H. vagans*) is most destructive during the cool, wet weather of spring and fall in Michigan. Helminthosporium leafspot (*H. sorokinianum*) is most destructive during the warmer summer months. Therefore, if conditions are favorable, lawns can be damaged by one or the other of these pathogens anytime between April and November. Helminthosporium leafspot is mainly a problem on creeping bentgrass and fine leaf fescues, while Helminthosporium melting-out is a problem on Kentucky bluegrass.

Symptoms

Both Helminthosporium diseases first appear as small, purple to black specks on the leaf blades, which quickly enlarge and become irregularly elongated. The tissue in the center of the spot may die and turn beige or straw-colored, while the margin varies in color from reddish brown to near black (Fig. 1). If the spot extends across the leaf, the blades will wither and die. When cool moist conditions persist, the leaf sheath and crown of the grass plant can become infected with *H. vagans*, causing the entire grass plant to die. The names fading-out, melting-out and Helminthosporium blight are often used to describe this stage of the disease (Fig. 2). Because dead or badly diseased plants often lose the characteristic symptoms described, drying out or insect damage is often blamed as the cause of injury.



Figure 1: Helminthosporium leafspot symptoms at close observation.



Figure 2: Overall death of turf caused by melting-out. This symptom may be confused with insect damage or drying out during hot weather.

Occurrence

H. vagans and *H. sorokinianum* survive the winter as spores and mycelium (fungal strands) in and on diseased grass tissue and in the thatch. In spring, when temperatures reach 55 to 60 degrees F and high moisture conditions prevail (heavy dew or rain), *H. vagans* grows and produces spores. These spores are spread by wind, water, and mowing equipment, and under favorable conditions, large areas of turf appear to die (melting-out) almost overnight. *H. sorokinianum* causes the same problem when the temperatures are between 80 and 90 degrees F.

Cultural Management

For established lawns, several cultural practices can be used to reduce *Helminthosporium* melting-out or leafspot:

1. Mow grass at a 1¾- to 2-inch height of cut. Do not mow the grass too short as this weakens the plant.
2. Do not fertilize susceptible lawns with nitrogen in the spring, as lush growth favors infection and disease development. Fertilize moderately with nitrogen during the summer months.
3. Keep the grass blades dry by

Table 1: Recommended fungicides for the management of *Helminthosporium* melting-out and leafspot.

Common Name	Trade Name	Manufacturer
Chlorothalonil	Daconil 2787 Proturf 101 V	Diamond Shamrock
Cycloheximide + PCNB	Actidione RZ	Upjohn
Cycloheximide + Thiram	Acti-dione-Thiram	Upjohn
Anilazine	Dyrene Dymec 50 Proturf Fungicide III Ortho Dyrene Lawn Disease Control	Mobay PBI-Gordon O. M. Scott Chevron
Iprodione	Chipco 26019	Rhone-Poulenc
Mancozeb	Fore Formec	Rohm & Haas PBI-Gordon
Pentachloronitro- benzene (PCNB)	Lawn Disease Preventer Proturf FII Turfcide	O. M. Scott O. M. Scott Olin

avoiding evening or night watering.

When establishing new lawns in areas where *Helminthosporium* melting-out is a problem, use resistant cultivars. Parade, Touchdown, Majestic, Adelphi, Cheri, Victa, Brunswick, and Baron are recommended.

Chemical Management

Several fungicides are available which provide excellent manage-

ment of *Helminthosporium* melting-out and leafspot. Melting-out is best controlled by applying protective fungicides during spring and fall when temperatures are optimum for disease development, but before the disease becomes severe. See Table 1 for recommended chemicals for the management of *Helminthosporium* melting-out and leafspot.

NOTICE: Use all fungicides in accordance with label directions. Do not misuse or misapply pesticides.

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