

Powdery Mildew

Turf

Pest
Fact
Sheet **43**

Introduction

Powdery mildew occurs most commonly on the cool-season grasses such as bluegrasses and fescues.

Description

The fungus is usually first seen as isolated wefts of fine, gray-white cobwebby growth on the upper surface of the leaves. This growth rapidly becomes more dense, and may cover the entire leaf giving it a gray-white appearance. In cases of severe outbreaks, sections of entire grass stands may be dull white, rather than green.

Disease Cycle

The pathogen survives the winter months in dead grass leaves from the previous season, and in a dormant state in infected grass plants.

Fungal spores are spread primarily by wind. The conidia that land on a susceptible plant germinate quickly and the infection process begins within two hours from the time they land on the leaf.

Conditions favorable for the development of powdery mildew include: (a) reduce air circulation (b) high atmospheric humidity, but no free water on the surfaces of the leaves (c) low light intensity (d) an air temperature of 65^oF.

The disease is usually more severe on turfgrass growing in shaded areas than in full natural light.

Control

Resistant Varieties: Various grass varieties differ in their susceptibility to powdery mildew. Marion Kentucky Bluegrass, for example, is more susceptible to the powdery mildew fungus than common Kentucky Bluegrass. However, selection of common Kentucky, solely because of its higher powdery mildew resistance, cannot be justified because of other disease problems and cultural characteristics. When persistent powdery mildew occurs, perhaps ground covers other than grasses should be considered.

Cultural Practices: Where powdery mildew is of frequent recurrence, changes to improve air movement and reduce grass shading will aid in disease reduction. Avoid high nitrogen fertility.

The grass should be mowed relatively high in mow-prone areas.

Chemical Control:

In general, fungicides are not recommended. However, a single application of suitable fungicide after the disease appears will often give satisfactory control; sometimes 2-3 applications at 4-6 day intervals may be required for complete eradication if the outbreak is severe.

Fungicides:

Mancozeb and Bayleton (Homeowners).
Twosome, Banner, Mancozeb and Bayleton (Commercial).


*Resistance to Benomyl has been reported in several Northeastern states.

Summary

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| 1. Causal Agent: | Fungus |
| 2. Plant Parts Attacked: | Leaves |
| 3. Major Symptoms: | Mildew |
| 4. Time of First Noticeable Symptoms: | Fall |

Stop! Read the label on every pesticide container each time before using the material. Pesticides must be applied only as directed on the label to be in compliance with the law. All pesticides listed in this publication are contingent upon continued registration. Contact the Division of Pesticide Control at (603) 271-3550 to check registration status. Dispose of empty containers safely, according to N.H. regulations.


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