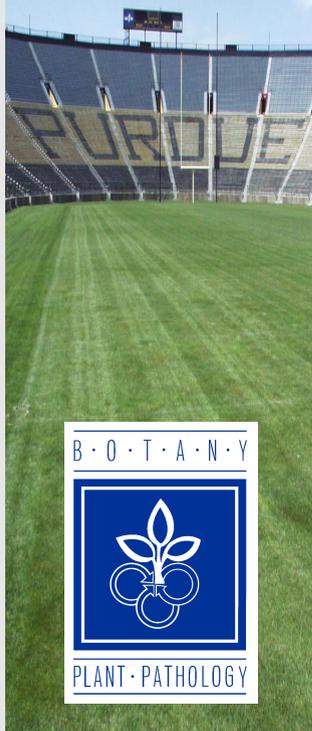




# Turfgrass Disease Profiles



## Powdery Mildew

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**P**owdery mildew is a foliar disease of Kentucky bluegrass and some fescues. Outbreaks can occur in golf course roughs, athletic fields, professional landscapes and residential lawns. The disease rarely is responsible for any lasting damage to turf. The pathogen (*Erysiphe graminis*) is a fungus that over-winters in dormant turf, or as specialized survival structures (cleistothecia) in turfgrass leaf litter.

### Disease Symptoms and Characteristics

Powdery mildew is simple to diagnose. From a distance, affected turf has a white or light gray appearance (Fig. 1). Close inspection of affected leaf blades reveals the presence of small (around 1/16 inch in diameter) pustules with masses of white spores that may eventually cover the entire leaf (Fig. 2). The spores provide the only significant means of dispersal of the pathogen. Only leaves are infected and no web-like mycelium is produced on the plant surfaces.

Powdery mildew occurs most often on slow growing turf, usually in shaded areas. Pathogen activity is favored by cool cloudy conditions that prevail in spring and fall. Prolonged periods of dew or wet weather are not needed for disease establishment and spread, although periods of high humidity favor disease development. Initial symptoms normally occur in areas with poor air circulation. Excess nitrogen fertilizer may increase risk of infection.

### Disease Control Options

Shade tolerant Kentucky bluegrass varieties such as America, Bensun, Eclipse, and Glade tend to be less susceptible to powdery mildew. Over-seeding shaded areas with these varieties will reduce powdery mildew establishment and spread. Improving air circulation by careful pruning of trees and shrubs also will help limit mildew development (and will serve to suppress some mid-summer diseases). Avoiding excess levels of nitrogen in disease-prone areas also may contribute to a reduction in mildew outbreaks.



Figure 1

Image courtesy of Zac Reicher



Figure 2

- Gray Snow Mold
- Pink Snow Mold
- Leaf Spot/Melting Out
- Red Thread
- Dollar Spot
- Brown Patch
- Gray Leaf Spot
- Anthracnose
- Pythium Blight
- Leaf Rust
- Powdery Mildew**
- Slime Mold
- Fairy Ring
- Take All Patch
- Summer Patch
- Necrotic Ring Spot

If the appearance of mildew-infected turf is absolutely intolerable, fungicides may be applied for effective control. There are very few instances where the cost of fungicide application would be worthwhile. Perhaps they may be justified on athletic field turf where shade is a problem and humidity is trapped by the stadium structure. Effective fungicides include DMI fungicides such as Banner Maxx, Bayleton, and Eagle, and thiophanate-methyl products such as Cleary 3336F and Fungo Flo 4.5F.



New 2/02

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