



Anthracnose on Turfgrass

O & T Guide TD-7

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Causal Agents and Hosts: Anthracnose on turfgrass is usually caused by the fungus *Colletotrichum graminicola*. The fungus, *Microdochium bolleyi* has been associated with the disease in some areas. All grass species are susceptible to anthracnose; however the disease can be particularly severe on bluegrass and bentgrass.

Symptoms: Symptom development is highly dependant on the environment, but scattered chlorosis or irregularly shaped chlorotic patches ranging from a few centimeters to a few meters in size is characteristic of infected turf. Diseased turf is reddish brown at first, fading to yellow, then tan to brown. Anthracnose lesions on individual leaves are round to elongate, reddish brown blotches, often surrounded by a yellow halo, which may merge to blight entire leaves. Foliar blight generally begins on the oldest leaves and progresses to the newer growth. The fungus can attack the crowns and roots resulting in a basal rot. Basal rot begins as a reddish or brown rot of the crown tissue. As the disease worsens, the rot progresses up the stem. Severely affected plants will die resulting in a thinning of the turf. Tiny black spiny fruiting bodies called acervuli may appear on infected stems and leaves. Acervuli and setae are visible with a hand-lens and are diagnostic for this disease.



Anthracnose on turfgrass. Photo: University of Minnesota



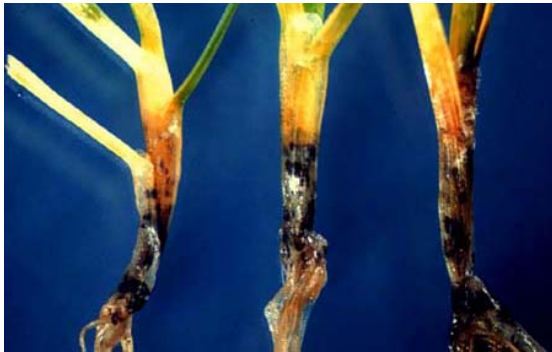
Yellowing and thinning of turf caused by Anthracnose. Photo: Rutgers University.



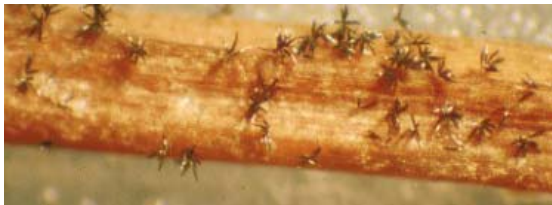
Turf killed by anthracnose. Photo: E. B. Nelson, Cornell University.



Anthracnose leaf lesions. Photo: Rutgers University.



Basal rot of individual plants. Photo: The Pennsylvania State University.



Acervuli on an infected stem. Photo: The University of Arizona.



Close-up of acervuli on infected leaf tissue. Photo: The University of Wisconsin-Madison.

Conditions for Disease: The fungus survives as mycelium in plant debris. It is spread by movement of spores by equipment, people, animals, water, and wind.

The disease occurs any time of the year, but is most severe during the summer months. Disease development is favored by high humidity and leaf wetness. Grass which is under stress, particularly from high temperatures, drought, low or unbalanced fertility, excessive thatch, insect damage, or compacted soil is particularly susceptible to this disease.

Management: Cultural practices which help to reduce the occurrence and severity of the disease include:

- Maintain appropriate fertility levels.
- Follow proper irrigation practices.
- Reduce thatch.
- Aerate compacted soils.
- Preventative, systemic fungicides can offer protection against disease.