



Anthracnose on Turfgrass: *Colletotrichum graminicola*; *C. cereale*

Introduction

Anthracnose of turfgrass is found in many areas and climates. It attacks most turfgrasses but is most damaging on Annual Bluegrass (*Poa annua*) and Bentgrass (*Agrostis palustris*) in North America. The fungus is an active pathogen of young leaves but it is most readily detected on senescent plant parts.

Symptoms and Signs

The pattern of symptoms depends largely on weather conditions. Rotting of the basal stem is the most prevalent symptom detected during cool, wet weather. Water-soaked stem lesions become dark in color, and the leaf blades eventually yellow and die (Fig. 1). The central stem can be pulled from the plant quite easily revealing a blackened base.



Figure 1: Symptoms of Anthracnose on turfgrass.
(provided by Dr. Eric B. Nelson, Cornell University)

Reddish-brown lesions may develop when warm weather, dry soil and increased humidity within the turf canopy occur. Reddish-brown irregular patterns on the turf may form as the disease develops. Over time, the affected foliage turns yellow, then tan, then brown.

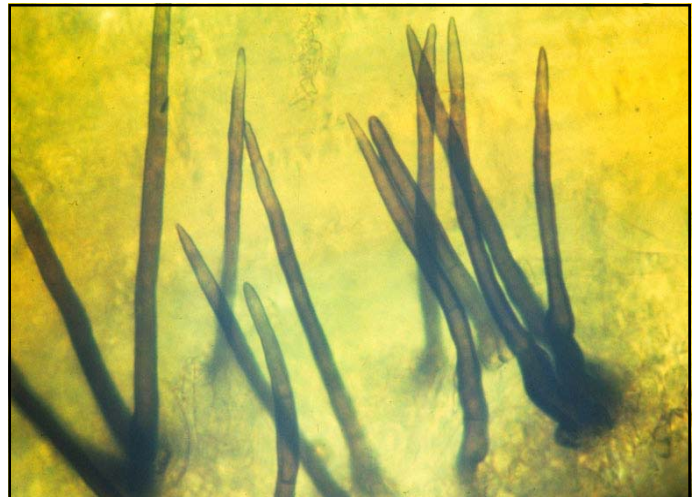


Figure 2: Microscopic view of setae of the fungus.
(provided by Dr. Eric B. Nelson, Cornell University)

Mycelium and acervuli may be detected on the lower stems or on seasoned tissue, and microscopic examination may reveal the dark hyphopodia (resting stage) in the lower crown. Characteristic setae, that look like black, bristly hairs (Fig. 2), are often associated with the acervuli and give them a distinctive appearance.

Disease Cycle

The fungus overwinters on living plant material. Stressed turfgrass is most susceptible to infection. The fungus penetrates the root, crown, and/or leaf tissue during high humidity and wet weather

conditions.

Management Strategies

Keeping the turf healthy and reducing stress, such as soil compaction, may help in reducing the damage observed on the plant material. Proper watering and correcting fertilizer deficiencies, especially phosphorus and potassium, will be particularly helpful in reducing damage caused by *Colletotrichum* spp.

Many products are available for use against Anthracnose. For home lawn use in New York State, some products may be found in our table on turf fungicides. See: [turf fungicide table](#). Be certain any formulation of pesticide you purchase is registered for the intended use, and follow the label instructions. The label also contains information on how to apply the fungicide as well as any precautions.

Additional pesticides may be available for commercial turf applications. Commercial applications should refer to the appropriate pest management guidelines, or contact their local Cooperative Extension Office for more information on currently registered products.

Reference:

Compendium of Turfgrass Diseases, Third Edition, 2005. R.W. Smiley, P.H. Dernoeden and B.B. Clarke. APS Press.

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READ THE LABEL BEFORE APPLYING ANY PESTICIDE! Changes in pesticide regulations occur constantly. All pesticides distributed, sold, and/or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office.

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