



DISEASES

Ascochyta leaf blight of turf

no. 2.901*By Laura Pickett Pottorff¹*

Quick Facts...

Ascochyta leaf blight has become a common problem on Kentucky bluegrass lawns in Colorado.

Large uniform areas of affected turf will turn straw-colored.

Leaves usually start dying back from the tips.

Ascochyta can occur throughout the growing season, but is more prevalent in the spring when there are extended wet periods.

The first line of defense against ascochyta leaf blight is to manage the turf properly.

Ascochyta leaf blight has become a common problem on Kentucky bluegrass lawns in Colorado. This fungal disease is caused by more than 20 species of the genus *Ascochyta* that can attack Kentucky bluegrass, Italian and Perennial ryegrass, Tall fescue and bentgrass.

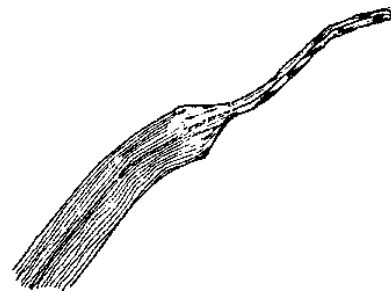


Figure 1. *Ascochyta* damage to grass blade.

Symptoms

Large uniform areas of affected turf will turn straw colored. In some instances, “pockets” of infection may cause a patchy appearance. Closer examination of the turf will show healthy leaves and infected leaves interspersed.

Individual leaf blades usually start dying back from the tips. This bleached area extends toward the leaf base. The margin between the diseased tissue and healthy tissue develops an abrupt pinched appearance.

Sometimes *Ascochyta* infection may begin in the center of the leaf blade and form a straw-colored band, similar to those caused by dollar spot disease. Dollar spot lesions are bordered by a distinctive tan to purplish streak between the white and green portions of the blade. The dollar spot lesion, or band, also has an hour glass appearance. *Ascochyta* lesions occur in the middle of a blade and usually will not have an hour glass shape or a border area between the white (dead) tissue and the green (healthy) tissue.

Conditions that Favor the Disease

Ascochyta can occur throughout the growing season, but is more prevalent in the spring during extended wet periods. High atmospheric humidity or frequent irrigations appear to be conducive to disease development. Frequent mowing and dull mower blades also favor disease development by creating more sites (wounds) for infection to take place.

About the Fungus

Ascochyta fungi overwinter on dead tissue. In the spring, when it's wet, the fungus produces spores that ooze out of tiny black fruiting structures called pycnidia. The spores are moved by splashing rain, lawn mowers, other turf equipment, and/or shoes where they usually enter the freshly cut ends of the leaf blade.

Control

In Colorado, most turfgrass diseases occur because of some underlying stress factor, or factors, that are not conducive to proper turf growth. This usually has to do with poor soil conditions and improper cultural (management) practices. Therefore, the first line of defense is to manage the turf properly. A healthy, vigorous lawn can overcome disease on its own.

Cultural control

Cultural controls for *Ascochyta* leaf blight are:

1. Core aerate the lawn once a year (spring or fall) to help reduce thatch build-up and improve soil condition.
2. Mow grass to a height of 2 1/2 to 3 inches. Make sure mower blades are sharp. Never remove more than one-third of the grass blade at a time.
3. Water to a depth of 6 to 8 inches as infrequently as possible without creating water stress. Water in the morning or mid-day so that the surface of the leaf blades will dry as fast as possible.
4. Avoid excessive applications of nitrogen fertilizer. This induces tender, succulent growth and causes more need to mow and more chance for infection. Apply nitrogen applications according to soil test results or at the rate of 1 pound per 1,000 square feet, four times a year; mid-May, June, September, and two to three weeks before frost. The bottom line is never apply more than 4 pounds of nitrogen per 1,000 square feet in an entire year.

Chemical control

Severe disease may warrant the need for fungicide use. Broad spectrum fungicides, such as chlorothalonil (Daconil 2787), anilazine (Dyrene), and iprodione (Chipco 26019) should give adequate control. **Chemicals are most effective when combined with the use of cultural controls.**

Apply fungicides at seven to 14-day intervals. Be sure to follow the instructions on the fungicide label for specific rates and time of applications.

¹Colorado State University Cooperative Extension plant pathologist and horticulturist, Integrated Pest Management Program, Jefferson County.

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