DISEASES

Ascochyta Leaf Blight of Turf no. 2.901

by L.P. Pottorff [1]

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 attack Kentucky bluegrass, Italian and perennial ryegrass, tall fescue and bentgrass.

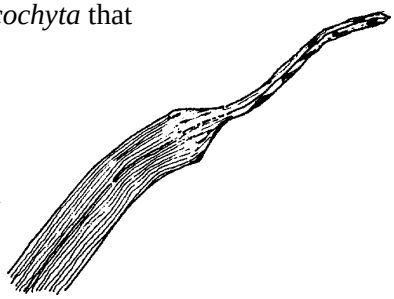

Figure 1: Ascochyta damage to grass blade.

Symptoms

Large uniform areas of affected turf turn straw colored. In some cases, pockets of infection may cause a patchy appearance. Closer examination of the turf shows 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 hourglass appearance. *Ascochyta* lesions occur in the middle of a blade and usually do not have an hourglass 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 humidity or frequent watering appear to encourage 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. Splashing rain, lawn mowers, other turf equipment or shoes spread the spores to other grass blades, where they usually enter the freshly cut ends of the leaf blade.

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Control

In Colorado, most turfgrass diseases occur because of underlying stress factors. This usually has to do with poor soil conditions and improper cultural 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:

- Core aerate the lawn once a year (spring or fall) to help reduce thatch buildup and improve soil condition.
- 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.
- Water to a depth of 6 to 8 inches as infrequently as possible without creating water stress. Water in the morning or midday so that the leaf blades dry as quickly as possible.
- Avoid excessive applications of nitrogen fertilizer. This induces tender, succulent growth and causes more need to mow and more chance for infection. Apply nitrogen 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. Never apply more than 4 pounds of nitrogen per 1,000 square feet in an entire year.

The first line of defense against Ascochyta *is to manage the turf properly.*

Chemical Control

Severe disease may warrant a fungicide. 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 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.

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