Extension

#### Issue: 22-05 Date: 4/26/2022

# LANDSCAPE REPORT

**PURDUE** 

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## Ascochyta blight: Conspicuous but Usually Cosmetic

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Ascochyta blight is a sporadic disease that can infect Kentucky bluegrass, tall fescue and perennial ryegrass. Outbreaks are closely tied to high rainfall or irrigation events in mid to late spring, and drainage patterns. If the lawn is irrigated, Ascochyta can be a sign of too much irrigation. Current rainfall events are providing a prime environment for this disease.

To reduce spread, do not mow turfgrass when wet or immediately after an excessive rainfall event. Also make sure the mower blades are sharp, the turfgrass is mowed to the appropriate height (3 - 3.5" or higher), and is mowed frequently enough to avoid scalping. Over the next few weeks, consider a slow release nitrogen fertilizer application of not more than 0.5 lb N/1000 sq ft.

Ascochyta blight is solely a foliar disease and the turfgrass should recover in a few weeks. Because of this and the sporadic occurrence of the disease, fungicide applications are usually not recommended.

## **Conditions**

Ascochyta spp. can be found on senescing or dead leaves of several turfgrass species; however, the disease appears to be most serious on Kentucky bluegrass.

Ascochyta spp. survive as conidia in pycnidia on dead leaves or clippings remaining in the thatch. The pycnidia are highly resistant to breakdown by drought or extreme temperatures. Thousands of conidia ooze from a single pycnidium during wet weather and are dispersed by splashing rain, irrigation, mowing or other management activities.

Conditions that favor Ascochyta blight development are poorly understood. The disease can occur in late spring or summer on droughtstressed turf resulting from water restrictions or poor irrigation system coverage. However, the disease may also develop during periods of warmer weather preceded by unusually wet soil conditions induced by excessive rain or overirrigation. Frequent mowing and dull mower blades contribute to disease severity by creating more wounds that serve as infection sites.



Figure 1. Ascochyta blight damage occurs more heavily in mower tracks.



Figure 2. Areas that don't drain well also result in increased Ascochyta.



Figure 3. Pycnida embeded in leaf blade (top). Numerous Ascochyta spores erupting from pycnidia (bottom).



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### Management

Ascochyta leaf blight can be managed by using good cultural practices that minimize turfgrass stress. Reduce thatch and promote water infiltration through the soil with regular core cultivation. Maintain height of cut at 3 inches or higher. Minimize wounding of the leaf blades by maintaining sharp mower blades. Avoid mowing during wet weather, especially when *Ascochyta* spp. are active. Ruts caused by mower weight in wet conditions compact soil. This reduces water infiltration, increases leaf wetness duration and results in increased disease occurrence. Reduce mowing frequency and increase mowing height during Ascochyta leaf blight outbreaks. The fungus may be spread from one location to another on grass clippings, but this presumably contributes little to spread compared to the mower itself. Thoroughly mulching rather collecting or discharging clippings is advised.

Maintain balanced fertility. Avoid excessive applications of nitrogen fertilizer, especially in the spring. Too much nitrogen promotes rapid, succulent leaf growth that requires more frequent mowing and causes more wounding of the turfgrass.

Try to maintain uniform soil moisture. Check the irrigation system to make sure that all irrigation heads are working properly and that water is being distributed uniformly to avoid drought stress. On the other hand, excessive irrigation and poorly drained soils can also promote disease development.

Ascochyta leaf blight is primarily a leaf disease and not a root or crown disease, so it rarely causes plant mortality. Turfgrass usually recovers completely after a couple of weeks. Although several fungicides will inhibit *Ascochyta* spp., they can be expensive and difficult to apply. Furthermore Ascochyta leaf blight development is sporadic and rapid, making timing of preventive and curative fungicide applications difficult.

## Symptoms can be confused with those of

- Dollar spot
- <u>Heat stress</u>
- Moisture stress
- Mower injury
- White grub damage

To make sure you are treating your lawn properly, send in a sample to the Plant & Pest Diagnostic Lab.

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