Field Facts: Anthracnose Leaf Blight

Anthracnose leaf blight is a fungal pathogen that poses a significant threat to corn, grain sorghum and small grains. In corn, anthracnose leaf blight causes nearly 400,000 bushels of yield loss annually in the U.S., mostly due to stalk lodging, while anthracnose stalk rot and top dieback cause significantly more, with a loss of 6.4 million bushels.¹

- Common names: Anthracnose leaf blight
- Scientific name: Colletotrichum graminicola
- **Symptoms:** Upon infection, small, round to irregular-shaped, water-soaked spots appear. These spots later turn yellow and then brown with reddish-brown borders.
 - 1. The leaf spots may enlarge to $\frac{1}{2}$ " long and join together.
 - 2. In severe cases, the leaf tips or entire leaves may turn yellow.
- **Conditions for development:** The pathogen overwinters in diseased leaves and stalks on the field's surface. During warm, rainy spring conditions, the infected residue produces spores that can infect seedling roots and foliage. Spores are spread through wind and rain, with infection thriving in warm temperatures (70°F to 80°F) and high humidity.

Fast facts

- Anthracnose is common early in the season where diseased crop residue was left on the soil. Infection develops when spores are splashed onto seedling plants by rain.
- Symptoms begin on lower corn leaves early in the growing season and then develop on the upper leaves late in the season. Lesions enlarge up to 5-6 inches long and may join together to infect the entire leaf.²
- Anthracnose can be found on all parts of the corn plant throughout the growing season. Although the pathogen is common in seedlings, plants in the ear-fill stage often become susceptible to the top dieback and/or stalk phase of the disease.
 - Top dieback caused by the anthracnose pathogen is characterized by yellowed, purple or brown flag leaves on plants scattered throughout the field. When the leaf sheaths are peeled back at the top of affected plants, shiny black lesions can be observed on the outside of the stalk.³
- Because anthracnose has both a leaf and stalk phase in corn, the infection can spread from the leaves to stalk. The stalk also may be infected through the roots or base of the plant. This image illustrates the disease life cycle.



Control tips

The most substantial crop losses from anthracnose are often a result of stalk rot.³ To best manage this pathogen, it is critical for growers to proactively scout and harvest fields according to current crop conditions. Farmers can further protect their yield from diseases like anthracnose by implementing these management tips:

- Plant well-adapted, disease- and stress-resistant hybrids.
- Practice balanced soil fertility.
- Reduce crop stress through plant populations, irrigation, soil fertility management and weed control.
- Manage corn residue.
- Consider fungicide applications for effective anthracnose prevention and control.

Aproach[®] Prima fungicide is rainfast within one hour and provides residual activity for up to three weeks. With two modes of action, it is both preventive and curative to fight tough diseases like anthracnose.

¹*Com Disease Loss Estimates from the United State and Ontario-2022.* Crop Protection Network. February 6, 2023. https://cropprotectionnetwork.org/publications/com-disease-loss-estimates-from-the-united-states-and-ontario-canada-2022.
² Malvik, Dean. *Anthracnose Leaf Blight on Corn.* University of Minnesota Extension. Accessed February 26, 2024. https://extension.umn.edu/corn-pest-management/anthracnose-leaf-blight-corn.
³ Kieczewski, Nathan. *Anthracnose Leaf Blight and Stalk Rot of Corn.* University of Delaware. Accessed February 26, 2024. https://www.udel.edu/academics/colleges/canr/cooperative-extension/fact-sheets/anthracnose-leaf-blight-and-stalk-rot-of-corn/

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