

Diplodia Stalk Rot of Corn



Mark Jeschke, Ph.D., Agronomy Manager

DISEASE FACTS

- Caused by Stenocarpella maydis fungus (formerly called Diplodia maydis). Corn is the only host of this pathogen.
- Survives on corn stalk residues; spores are spread by wind or splashing rain.
- Favored by warm, wet weather two to three weeks after pollination.

IDENTIFICATION AND SYMPTOMS

- Diplodia stalk rot may first be evident when affected plants die suddenly during mid to late ear fill.
- Upon examination, dark brown lesions can be found extending in either direction from the node.
- Small black spots (pycnidia) may develop just beneath the stalk epidermis near the nodes (Figure 2). The black dots are not easily removed, which distinguishes Diplodia from Gibberella.
- Diplodia results in rotted stalks that are disintegrated and discolored (brown), allowing the stalk to be crushed or easily broken (Figure 3).
- Although the pith disintegrates, vascular bundles remain intact.



Figure 1. Diplodia stalk rot.

MANAGEMENT

- Genetic resistance choose hybrids with high scores for stalk strength.
- · Crop rotation at least one year out of corn.
- Tillage to help break down crop residue.
- Use moderate plant population if field has a history of stalk rot.
- Control stalk-boring insects to prevent wounds stalk rot organisms can enter.



Figure 2. Corn stalk showing Diplodia stalk rot symptoms. Note pycnidia on corn stalk node.



Figure 3. Broken corn stalks due to Diplodia stalk rot infection.

The foregoing is provided for informational use only. Please contact your sales professional for information and suggestions specific to your operation. Product performance is variable and depends on many factors such as moisture and heat stress, soil type, management practices and environmental stress as well as disease and pest pressures. Individual results may vary. CF200827 (201226)