

# ASSESS FIELDS FOR POTENTIAL STALK ROT ISSUES

## SITUATION

Factors that stress corn throughout the growing season can lead to stalk rots, which can lead to yield loss due to premature plant death or lodging. Understanding stalk rots risk factors and management practices are critical.

## FACTORS TO CONSIDER

- Reduced Photosynthesis
- Saturated Soils
- Drought
- Insect damage
- Humidity
- Nutrient imbalances
- Hail damage
- Compaction

## ACTION PLAN

**1. Identify incidence of stalk rot.** Scout for stalk rot before blacklayer and continue weekly until harvest. Look for prematurely dead plants and stalk lesions. The most common symptom of stalk rot is disintegration of internal tissue, leaving a shredded appearance. Premature plant death will result in wilted leaves and improper grain fill. Test at least 100 stalks for intactness. Either pinch the stalk between the lower nodes or push the plant to see if it remains upright. If more than 10 percent to 15 percent have soft stalks or lodge easily, those fields should be scheduled for the earliest possible harvest.

**2. Distinguish type of stalk rot.** It can be difficult to determine the [specific disease](#) responsible for stalk rot. Refer to the table to help identify conditions favoring stalk rots and symptoms of specific diseases.

**3. Prevent stalk rot.** Avoiding or minimizing stress throughout the growing season is critical for preventing stalk rot. Rotate crops to reduce the buildup of inoculums. Select [hybrids](#) with good stalk strength, staygreen and lodging scores. Consider hybrids with in-plant insect protection like [Mycogen SmartStax](#). Plant at the population recommended for the specific hybrid and environment. Maintain proper fertilization, keeping a good balance of potassium to nitrogen.

Disease	Distinguishable Symptoms	Favorable Conditions
<a href="#">Anthracnose Stalk Rot</a>	Black, shiny lesions or streaks on outer stalk; tan internal discoloration; may also cause top dieback	High temps and extended periods of cloudy, humid weather
<a href="#">Charcoal Rot</a>	Black sclerotia scattered throughout vascular tissue; gray internal discoloration	High soil temp and low soil moisture during grain fill
<a href="#">Diplodia Stalk Rot</a>	Dark brown lesions extending either direction from the nodes; small black specks (pycnidia) on the lower internodes of the outer stalk; tan internal discoloration	Dry conditions early and warm, wet weather after silking
<a href="#">Fusarium Stalk Rot</a>	Whitish pink to salmon internal discoloration; nodes on outer stalk may appear white	Dry conditions early and warm, wet weather after silking
<a href="#">Gibberella Stalk Rot</a>	Pink to red internal discoloration; dark streaks on lower internodes; some black specks that can be scraped away	Dry conditions early and warm, wet weather after silking
<a href="#">Pythium and Bacterial Stalk Rot</a>	Decay of fist internode above soil; soft, brown and water-soaked; twists and falls over; foul odor	Warm, wet conditions



Lodging is a common indicator of stalk rot.



Disintegration of internal tissue results in a shredded appearance.

## SUMMARY

Stalk rots can impact corn nearly every year, and many stress factors influence severity. Utilize management techniques to minimize stress and select hybrids that are more tolerant to stalk rots to reduce loss. For more information, contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser.

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