

# **Stem Canker**

#### **Overview**

Stem canker is a fungal disease caused by *Diaporthe*. Excessive rainfall can accelerate stem canker development in soybeans, causing devastating yield reductions of up to 90%. Excessive rain during soybean growth can increase the risk of infection, as can hail and reduced tillage.

### What you should know

- Stem canker fungus is dormant during winter months in infested crop debris and may spread to seeds. Humid, damp conditions with temperatures 70°-95°F initiate fungal bacteria growth in the soil.
- During early soybean growth stages, rainy periods increase the likelihood of infective stem canker. Plant mortality risk increases when dry conditions follow infection.
- Stem canker causes reddish-brown lesions, or cankers, with dark red-purple margins on lower stems, petioles and nodes of soybeans.
- Symptoms appear at the reproductive stage when the soybean plant is under significant stress due to high reproductive demand.
- Stem canker may start with leaf yellowing, with green veins similar to sudden death syndrome. Cankers develop along the main stem or lateral branches and prevent water and nutrient flow, prematurely killing the plant.
- Fields should be scouted for stem canker every two weeks from pod development through harvest.

## **Action steps**

- 1. **Delay planting:** In fields with a history of stem canker, consider delaying planting until the latest opening and use conventional tilling to improve soil aeration. Consider planting canker-resistant soybeans.
- 2. **Skip the fungicide:** There is little evidence to suggest foliar-applied fungicides affect stem canker development.
- Rotate and reduce residue: Reduce infestation in soil with annual rotation to grass crops and fall tillage to destroy crop residue where the fungus overwinters



Stems brown when cankers prevent nutrients from traveling through the plant.



- Stem canker is a fungus that can cause near-total devastation of soybean fields.
- Stem canker prevents nutrients from traveling through soybean plants.
- Fungicides may not help to control stem canker.
- Crop rotation and fall tillage to reduce residue can help reduce risk.

NOTES:

### For more information, contact:



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