

Plant Disease Notes

Bacterial Soft Rot of Sweet Potatoes

Bacterial soft rot, also known as bacterial stem and root rot, is caused by the pathogen *Erwinia chrysanthemi*. Rotting can occur in the field as well as during shipment and storage.

Symptoms. Roots are infected in the field or more commonly in storage by a soft rot that turns diseased tissue light brown and watery. Lesions on storage roots often have a dark brown margin. Some storage roots appear healthy from the outside but are decayed internally. Infected roots show black streaks in the vascular tissue and eventually undergo a soft, moist decay. Mother roots often decay in plant beds.

In the field, brown to black, water-soaked lesions appear on stems and petioles. Eventually, the stem may become watery and collapse, causing the ends of vines to wilt. Usually, one or two vines may collapse, but occasionally, the entire plant dies.

Persistence and Transmission.

The bacterium invades the host through wounds. It survives in crop debris or in association with weeds. Sources of inoculum may include soil, infected mother plants, contaminated wash water, and harvesting equipment. The disease is favored by warm, humid weather. Symptoms may not be visible at temperatures below 80 degrees F but may appear rapidly at temperatures of 86 degrees F or higher.

Control. Bacterial soft rot can be controlled by the following practices:

- Handle sweet potatoes carefully during all stages of production. This is the most important control method for bacterial soft rot.
- Select mother roots from fields free of the disease.
- Cull roots infected during storage.
- Use vines cut above the soil's surface for transplanting.
- Use a handling system that does not involve the immersion of sweet potatoes in water.



Your Experts for Life

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For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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