# Pythium Leak

See also: http://www.potatoes.com/research.cfm







- \*Occurs wherever potatoes are grown.
- \*This pathogen only enters through wounds.
- \*There is usually a distinct line between healthy and diseased tissue.
- \*Infected tissue is a smoky grey color.
- \*When squeezed, infected tubers produce a dark watery liquid.
- \*Following exposure to air, infected tissue changes from grey to brown, then black.
- \*In storage, infected tubers are sometimes reduced to empty shells.

### **Management**

- 1. Crop rotation and destruction of diseased tubers are important.
- 2. Some fungicides applied at planting or during the growing season can reduce losses caused by Pythium leak.
- 3. Harvest with pulp temperatures between 45 and 65 degree F.
- 4. Minimize mechanical injury to tubers during harvest and handling.
- 5. In storage, encourage maximum suberization and wound periderm formation; do not allow free water on tubers.

### General Information

Causal agent: Pythium ultimum and sometimes other Pythium species.

**Biology:** Wide host range including many crops. Infection of tubers occurs at wounds.

**Dispersal:** Infection can spread from tuber to tuber during harvest and handling. Infected seed can also spread the pathogen.

**Fungicide resistance:** *Pythium* has begun to demonstrate resistance to fungicides. See: http://www.potatoes.com/pdfs/FungicidesPressReduced.pdf

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## Potato Pink Rot

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- \*Symptoms often begin at the stolon end of the tuber.
- \*Damage is sometimes bordered by a dark line visible on outside of tuber.
- \*Recently infected tissue turns pink, and then black, when exposed to air.
- \*Infections in storage may cause an ammonia-like smell.

### **Management**

- 1. Plant in well-drained fields without a history of the disease.
- 2. Avoid excessive irrigation late in the growing season, and do not plant in areas of fields expected to become excessively wet.
- 3. Avoid wounding during harvest and transfer to storage.
- 4. Harvest storage crops in cool weather and with cooler pulp temperatures.
- 5. Sort infected tubers at harvest, and process or ship affected lots promptly.
- 6. Some fungicides are active against pink rot, but take care to avoid encouraging fungicide resistance.

#### **General Information**

Causal agent: Phytophthora erythroseptica

**Biology:** Pathogen of potato and many other plants; present in many soils worldwide; tuber infection and decay is worst in warm and excessively wet soils.

**Dispersal:** Infection can spread from tuber to tuber during harvest and handling. Infected seed can also spread the disease.

**Fungicide resistance**: *P. erythroseptica* has begun to demonstrate resistance to fungicides. Fungicides should be rotated frequently to prevent resistance. See: http://www.potatoes.com/pdfs/FungicidesPressReduced.pdf

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