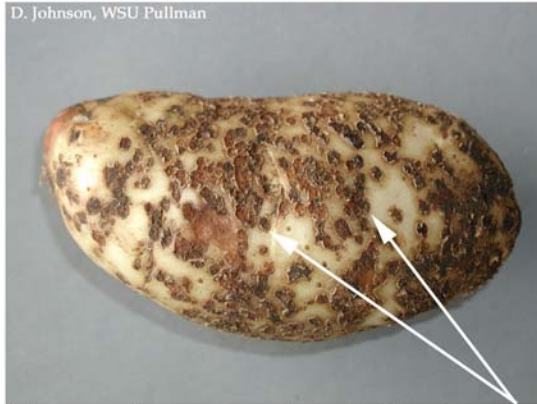


# Powdery Scab

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



Tuber symptoms can vary from shallow depressions to raised scab-like lesions. Lesions at a certain stage of development can be seen to be filled with powdery-looking structures called cystosori, hence the name of the disease, powdery scab.



Powdery scab can appear as galls on roots. These galls look something like galls caused by root-knot nematodes. Severely affected root systems can result in foliar wilting & other above-ground symptoms. Some potato varieties tend to have more symptoms on roots compared to tubers and vice versa.

Tuber symptoms of powdery scab and common scab (see reverse) are very similar, and both pathogens are sometimes found.

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## Management

1. Avoid planting infected seed into uninfested soil.
2. Follow good rotation practices of 3 or more years between potato crops.
3. Grow varieties that show less severe damage and symptoms in infested soil.
4. There are no effective foliar or soil-applied chemical control options.

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## General Information

**Causal agent:** The protozoan called *Spongospora subterranea*.

**Distribution:** Powdery scab occurs in most potato producing regions in the world, and seems to be getting more prevalent in the Pacific Northwest.

**Biology:** *Spongospora* is a soil-inhabiting organism with a complex life cycle. It can survive in soil without hosts for several years; hosts include many solanaceous relatives of potato including nightshades.

**Dispersal:** *Spongospora* is easily moved to new locations on seed tubers or in soil.

Washington State Potato Commission (Phone: 509-765-8845)

# Common Scab



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



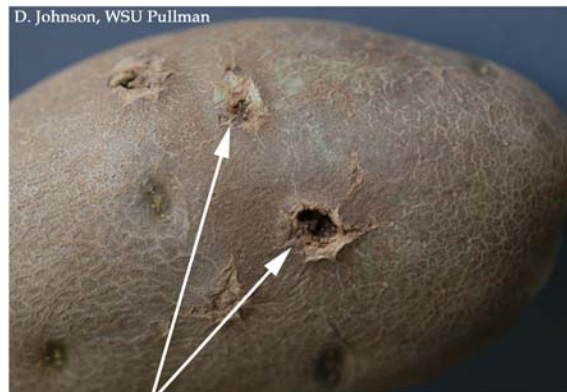
Typical superficial scab lesions.



Typical raised scab lesions.



*Streptomyces* can also cause callus-like lesions on underground parts of stems.



## Pitted Scab

This type of symptom is more prevalent in some varieties than in others.

## Management

1. Reliable strategies are not known for scab prevention under all conditions (see below).
2. Avoid planting scabby seed tubers.
3. Plant varieties with scab resistance when possible.
4. Avoid application of soil amendments that increase soil pH.
5. A generally healthy crop may help reduce scab intensity on tubers.

## General Information

**Causal agent and biology:** Common scab is caused by several species of *Streptomyces*, a genus of bacteria that is present in all soils in huge numbers. Most soils contain bacteria capable of causing potato scab, but exactly what conditions bring on symptoms is not fully understood. Scab-causing bacteria are constantly changing the arrangement of genes in their DNA, which may explain some inconsistency in field management.

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