

Rhizoctonia Canker and Black Scurf

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



Rhizoctonia Stem Canker



Stem lesions or cankers caused by *Rhizoctonia* on a potato stem. These usually occur near the soil line.

Foliar symptoms can also develop when lesions occur on stems. Often numerous stems will arise from the leaf axils near the base of the plant, giving the plant a bushy appearance.



Severe stem cankers can lead to production of tubers on aerial plant parts.



Girdling of underground stems can lead to curled and purplish apical leaves.

General Information

Causal Agent: *Rhizoctonia solani*

Biology and Dispersal: Pathogen of potatoes everywhere. Infection of young plants is encouraged by cool soil. *Rhizoctonia* is easily and commonly moved on seed tubers. Disease in the field is initiated by both soil-borne and seed-borne inoculum. Infected sprouts can be killed, leading to delayed emergence and weak plants. Triggers for formation of sclerotia, called black scurf, on daughter tubers are not well-understood.

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

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Black Scurf

Black scurf, or raised black spots on tubers, sometimes is called "the dirt that won't wash off." Black scurf (seen here on Yukon Gold tubers) actually are overwintering structures, or sclerotia, of the *Rhizoctonia* fungus.



This close-up photo shows how the sclerotia are tightly attached to the tuber's skin.

Black scurf can affect all cultivars, but is most serious to fresh-market potatoes because of quality loss. The black scurf on this red potato was found in the grocery store.

Management of Stem Canker and Black Scurf

1. Minimize seed-borne inoculum by purchasing seed with minimal black scurf.
2. Reduce sprout infection by minimizing the time from planting to emergence.
3. Crop rotation will help reduce the populations of *Rhizoctonia solani* that are specific to potato.
4. Certain fungicides applied to seed pieces or in furrow at planting can reduce stem canker and black scurf caused by *Rhizoctonia*.

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