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# PLANT DISEASES

## POTATO SCAB

Common scab, caused by *Streptomyces scabies*, is often found on potatoes, and at times occurs on roots of fleshy-rooted vegetables such as beets, radishes, and rutabagas (Fig. 1). The scab organism can survive many years in the soil.

Scab severity is closely related to soil acidity (sourness) or alkalinity (sweetness). Scab is usually minor

in moderately acid and moderately alkaline soil. As soil pH approaches neutrality (pH 7), scab increases. This is why addition of alkaline-producing materials such as lime, ashes, and manure to a garden having acid soil may suddenly increase scab occurrence.

Scab is also influenced by soil temperature and moisture. It is usually less serious in cool soil.

Tubers are usually infected when quite young. Infection is very limited in wet soil, but can be very severe in drier soil. Subsequent scab lesion development is affected very little by soil moisture.

**Symptoms.** Rough, corky patches which develop on the potato tuber skin may be circular or nearly circular (Fig. 2), but may also be indefinite, irregular areas. These may



Fig. 1. The potato scab organism can also attack other fleshy rooted vegetables such as radish.



Fig. 2. Scab lesions appearing as definite, corky areas on the potato.

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be a nuisance to gardeners, but are usually easily removed unless other organisms have entered the lesion and caused decay.

Sometimes scab lesions are associated with, and masked by, damage from potato flea beetle and symphylan. Such damage usually appears as corky, winding trails, and/or small holes in the tubers. For further information, see EB1198, *Potato Flea Beetle: Biology and Control*, and EB1351, *The Garden Symphylan: Its Biology and Control*.

**Control.** Plant certified seed Russet Burbank, Netted Gem, and

Norgold have moderate resistance. A red variety, Red Norland, is moderately resistant.

Rotate garden crops, not planting potatoes in the same area more often than once every 3-4 years. Include corn for several years in the rotation, if possible, especially if scab has been severe.

Use caution in adding alkaline-producing materials to acid soil. This may be of special importance in western Washington where soils are usually acidic. Sometimes acid-producing materials, such as sulfur or ammonium sulfate, may be added

to slightly acid soil to increase acidity, but base such additions on a soil test. It may be best to make additions over several years rather than attempting to increase soil acidity to the desired level (about pH 5.2) in one year.

Keeping soil moisture high during early tuber development may help control scab. Do this for about 5 weeks beginning about 2 weeks after the plants emerge from the soil. However, be careful not to overwater since it may cause rotting or poor plant growth. Also, avoid planting in warm, dry soils.

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