KPOV – *The Point*

Gardening: Get Good at It

“Questions this Month in Plant Clinic: Potatoes”

May 22, 2018

Newcomers to Central Oregon gardens may not know how well potatoes grow here. In fact, the original Eagle Crest Resort development in Redmond was once a potato farm. The warm days, pH neutral soil and low rainfall create the perfect environment for root crops. And anyone who’s grown potatoes knows the pleasure of turning over mounds of soil in September, revealing dozens of plump potatoes.

The OSU Extension Service Plant Clinic had a question recently about a potato crop with lesions on the skin. While potatoes do well here, they *are* prone to a number of pests and disorders. The homeowner wondered if it was a disease and how to avoid having it happen again. Our diagnosis was a common one for Central Oregon: Potato Scab Disease.

Soil amendments, cover crops, manures, and composted organic materials increase long-term fertility of the soil and improve soil structure. However, high levels of undecayed organic matter can promote potato scab so uncomposted manure should only be applied in the fall.

Potatoes need up to 2 inches of water per week depending on the time of year and weather conditions. But too much water before plant emergence or late season watering can cause tuber decay and disease. Delay irrigation until the potato plants appear and stop watering a week or two before final harvest for winter storage. Try to apply only as much moisture as the soil will hold in the top 15 inches.

Potato tubers turn green in sunlight. The green color is chlorophyll and is not poisonous. However, solanine, a poisonous alkaloid, increases along with chlorophyll. Green potatoes therefore could be toxic if eaten in excessive amounts. To prevent greening, keep the tubers covered by periodically mounding soil around the plants. Avoid covering the leaves.

Control of insects such as aphids, wireworms, and flea beetle larvae will reduce disease problems.

The most serious diseases of potatoes are carried in the seed tubers. Many of these, particularly viruses, can be prevented or reduced by using certified seed. Decaying seed pieces contain fungi and/or bacteria that can rapidly destroy the seed pieces and developing plants. If soil conditions are not suitable for rapid healing and plant emergence (above 45°F, moist but not wet), allow cut seed pieces to heal for several days before planting.

Avoid growing potatoes in the same section of the garden year after year, since this causes a buildup of soil-borne diseases including scab and verticillium wilt.

Potato scab first shows as reddish-brown spots in small tubers. The lesions become larger and darker and may form large corky masses. The disease is present in the soil and promoted by a high pH and over-watering. Scab is cosmetic, though, and does not affect food quality after the potato skin is removed.

Potatoes, tomatoes, strawberries, and eggplant can also have verticillium wilt and should be in the crop rotation.

Viruses can be controlled by using certified seed and by controlling aphids. Some viruses are sap transmitted and can be spread from plant to plant by clothing or equipment.

For more information on this or any other gardening topic, call the Master Gardeners at 541-548-6088 or go to our website: gocomga.com and click on the KPOV tab on the orange bar. This has been Gardening: Get Good at It on KPOV’s *The Point*.

Resources:

EC 1004 “Grow Your Own Potatoes”. OSU Extension Service publication <http://extension.oregonstate.edu/deschutes/vegetables-0>

Potato Scab Fact Sheet, Cornell University <http://vegetablemdonline.ppath.cornell.edu/factsheets/Potato_Scab.htm>

Recommended Vegetable Varieties for Central Oregon <http://extension.oregonstate.edu/deschutes/sites/default/files/Horticulture/documents/recommended_vegetables2011.pdf>