

Potatoes for the Home Garden

Oregon State University Extension Service

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Potato production practices for home gardens vary in some details from commercial potato production practices. Some superior varieties that would not produce adequately in the field can be raised in home gardens. Likewise, fungicides and insecticides that would be either uneconomical or impractical for commercial production can be used in gardens.

Varieties

The following varieties all possess exceptional cooking quality and are well suited to home garden production:

- Early Red Varieties
 - Norland
 - Red La Soda
- Late Red Varieties
 - Red Pontiac
- Early White Varieties
 - White Rose
 - Norgold Russet
- Late White Varieties
 - Kennebec
 - Nampa (russet)
 - Nooksack (russet)
 - Russet Burbank (Netted Gem)

The Nooksack variety is quite dormant and should store well under good potato storage conditions. For planting purposes, the Nooksack variety should be preconditioned four to six weeks to break dormancy.

You can get seed stock for these varieties from local feed and seed stores. Be sure to plant *certified seed*; this will help assure good production and freedom from inherent diseases. Commercial potatoes are often treated in a way to prevent sprouting, thus they should be avoided for seed.

Cutting and Seed Treatment

Cut seed tubers into halves or quarters, depending on their size. Each seed piece should weigh one and a half to two ounces, and each one *must* have at least one eye or it will not grow. After cutting, treat the seed pieces with Captan or a

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similar material to assure "healing" of the cut surfaces and prevent rotting and disease spread. Every seed piece must be completely covered with the seed-treatment material. These materials can be purchased at local feed stores. Be sure to follow the directions on the package.

Fertilization

Central and eastern Oregon.

Use a 16-20-0 fertilizer. It contains 16% nitrogen and 20% phosphorus. In certain areas, potash is also needed and in such cases fertilizer practices for western Oregon should be followed. Work the fertilizer into the soil at a rate of 14 pounds per 1,000 square feet. A highly satisfactory alternative method is to place one-fourth ounce of this fertilizer about 3 inches to either side and about 1 inch below the seed piece at planting time.

Western Oregon. Use a 10-16-8 fertilizer. It contains 10% nitrogen, 16% phosphorus, and 8% potash. Apply the fertilizer at a rate of 17 pounds per 1,000 square feet, or one-half ounce to either side and about one inch below the seed piece.

Planting

Space rows about 3 feet apart with seed pieces about 1 foot apart in the row. Plant the seed pieces 3 inches deep as soon as possible after cutting and treating. Plantings can be made as soon as the ground warms up in the spring until as late as the end of June. The earliness of planting, as well as choice of variety, will influence the earliness of the crop. Plant potatoes intended for winter storage later than those for summer use.

Cultivation

As the plants grow, "hill up" or pile soil around their bases and about 6 inches to either side. Sunlight causes newly formed tubers to turn green, and this practice helps to keep them away from the sun. Do not completely cover the plant foliage.

The control of weeds is important. The best, easiest, and most economical method is by mechanical means, such as hoeing. It is only necessary to scratch beneath the surface enough to sever weed roots. Do not hoe too deeply. Cultivate after heavy rains also to keep the soil loose.

Irrigation

If irrigation is to be practiced, begin when the plants are about 5 inches high. Once irrigation is started, the ground should be kept damp. If the soil dries following irrigation, an increased percentage of small, knobby tubers of inferior quality will result.

Harvesting

Potatoes can be harvested and used at any time. Immature tubers may be desirable for some cooking uses or for immediate table use, but they will not store for long without rotting and shriveling.

If tubers are to be stored for winter use, harvest after the vines have died down as a result of frost or the discontinuance of irrigation. At least two weeks should elapse after the vines die before starting to dig in order to permit the skins to thicken and the tubers to mature.

Storage

Store tubers in a cool, dark place where there is no danger of freezing. The skins should be well set before potatoes are stored.

Disease Control

The most serious diseases of potatoes are carried in the seed. These virus diseases can be prevented by the use of "certified seed."

Both early and late blight of potatoes occur in western Oregon. Late blight is usually not observed in eastern Oregon, but early blight can cause losses. Both early and late blight can be controlled by spray or dust applications at 7- to 10-day intervals with Maneb. If only late blight is a problem, it can be controlled with spray or dust applications of Bordeaux mixture or tribasic copper sulfate applications at 7- to 10-day intervals. Follow instructions on the label closely for best results.

Insect Control

Flea beetles. Control of flea beetles is a *must* in western Oregon and in certain localized areas of eastern Oregon. Insignificant damage is caused by the adults that chew small round holes in the leaves. Major damage, however, can be caused by the larvae feeding on the tubers.

Flea beetles can be controlled

by spraying or dusting with Sevin® as directed on the package. Begin treatment when two-thirds of the plants have emerged from the soil and continue at 10-day to 2-week intervals throughout the season or when damage is observed.

Colorado potato beetle. This beetle is an occasional pest in central and eastern Oregon. The adults are yellow with black stripes and the larvae are reddish-orange. Both adults and larvae feed on the leaves. They can be controlled with Sevin® as directed on the package. Also hand picking the adult beetles and egg masses from the plants and destroying them can be effective in small gardens.

Mites. Very small, spiderlike creatures, mites can be detected by their feeding which causes the plants to yellow and dry. Webbing may be observed. Mites are usually controlled with malathion; however, mites may be resistant to this material in certain areas.

Aphids. Aphids cause damage to potato plants in two ways. They can transmit virus diseases, and when present in large numbers, can reduce plant vigor. Tuber yield and quality may be seriously affected. Malathion will satisfactorily control aphids. More than one application during the season may be necessary.

Blister beetles. These are large, black, shiny beetles about ½ inch long that feed on the foliage. Only occasionally will they be a problem. Do not crush them because their body fluids can cause painful blisters. Malathion will control them.

While all chemicals mentioned in this publication are considered safe to humans, always use caution in handling and applying them. Use and store all chemicals away from children. Be sure to read and follow the instructions printed on the manufacturers' labels.



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