



Vegetable Gardening Tips

Growing Information for the Home Gardener Series



Irish Potatoes

Irish potatoes are a cool-season vegetable grown in the late winter and spring in Louisiana and, to some extent, in late summer and fall. When grown under favorable conditions, they return a high yield for the space occupied. Potatoes are a good source of carbohydrates. The edible portion of the plant is called a tuber and is grown underground. Potatoes come in many varieties and different colors like red, white and yellow. Often termed Irish potato because of the famous potato blight in Ireland, the potato actually originated in South America.

Planting Site and Planting Dates

Potatoes need full sun and loose, well-drained soils to avoid root rot. An early spring crop of Irish potatoes are planted mid-January through the end of February. The earliest planting dates are made in south Louisiana and later planting dates in north Louisiana. Potato plants are sensitive to frost and may be killed by a severe frost but will generally renew growth quickly from uninjured portions of the stem.

Potatoes are generally harvested 90-110 days after seeding. Smaller potatoes harvested from the spring crop can be stored in a cool dry room and later planted into the garden mid-August through mid-September. Fall potatoes can be grown in our state, although they do not usually produce as high yields as the spring crop. Fall potatoes will be ready to dig in early December. A light frost will not harm the tubers even though it might kill the plants. If frost occurs, remove the dead vines. The potatoes may then be dug or allowed to remain in the soil for several days.

Only certified seed potatoes should be used to plant in the spring, because they are relatively free from disease and generally out-yield noncertified seed. Potatoes bought at the grocery store should not be used for seed, because they have been treated with chemicals to prevent sprouting. Also they may not be as disease-free.

Seed potatoes should be cut a few days before planting to allow the cut surfaces to heal over, especially if planting is done early while the soil is cold. This

will help to reduce soft rot, a disease that causes the seed potatoes, and sometimes plants, to rot. Seed potatoes may be cut and planted the same day, especially late in the season when the soil temperature has warmed. When cutting seed potatoes, cut into blocky pieces about 1 1/2 to 2 ounces each or about the size of an egg. Be sure each seed piece has at least one eye or bud, since this is where the plant originates.

Soil Preparation

Potatoes produce best on well-drained soils that are well-supplied with organic matter. They respond to generous use of commercial fertilizer, especially on soils of medium to low fertility. Potatoes tolerate acid soils, ideal soil pH is 5.5. In fact, it is recommended that potatoes be grown on soils with a low soil pH to control scab, a disease that affects the tubers. Generally, it is not recommended that acid soils be limed unless the pH is extremely low.

In preparing the soil, build a high row or loosen soils in raised beds. Space rows at least 3 feet apart. On medium- to low-fertility soils, apply 1.5 pounds of 13-13-13 or a similar complete fertilizer per 20 feet of row before planting. This fertilizer may either be applied broadcast over the bed and worked in or placed in one or two bands well



below the seed pieces. Apply additional fertilizer when the plants are 6 to 8 inches tall. Apply calcium nitrate at the rate of 0.5 pounds per 20 feet of row. In sandy hill soils, sidedress with 0.5-1.0 pound of a complete fertilizer such as 13-13-13 or 8-24-24 per 20 feet. Potatoes may also be planted in containers. Use a 5 gallon or larger container to allow roots to form. The container should be filled with a potting mix that comes pre-charged with fertilizer. Sidedress if needed (yellow leaves) with a liquid fertilizer or additional slow release fertilizer following directions on the label.

After the rows have been made or raised beds prepared, open up a furrow 4 to 5 inches deep in the row, and drop the cut seed pieces in the furrow about 12 inches apart. Cover the seed piece, and firm the soil.

Cultural Practices

Pull soil from row middles or the edges of a raised bed to cover shallow potatoes that are exposed to sunlight. Since the tubers are modified stem tissue, they will turn green when exposed to light and an alkaloid material forms. Consuming potatoes with green skin can cause severe stomach aches. Another option to cover exposed roots is to mulch heavy with leaves. Covering is essential in raised beds, in-ground gardens and containers. If you do not have enough soil to pull over the roots, mulch

or purchase extra potting or top soil to place on top of exposed roots.

As the plants approach maturity, the leaves begin to turn yellow and die. Allow the vines to die, and then dig the potatoes. This allows the skin of the tubers to “set” and reduces skinning and bruising and thus rotting in storage. To check for maturity, dig a few hills and rub your thumb across the potato. If its skin slips off easily, the potato is not mature. Wait several days before digging, if possible. When digging potatoes, do not leave them in the sun; gather them and place in the shade or a dark place. Potatoes deteriorate quickly in hot weather. Potatoes also deteriorate quickly in saturated soils. If heavy rains or prolonged rains are expected near the 90-day mark, do not wait to harvest. Pull the potatoes early to avoid having them rot in the soil.

Most Louisiana homes do not have an ideal place to store potatoes. To prolong storage life, place them in as cool a place as possible (above 40 degrees F) with as high a humidity as possible. Also, the room should be dark to prevent greening of the tubers. The ideal storage condition for Irish potatoes is 60 to 65° F and 85 percent relative humidity for 10 days; then drop the temperature to 40-45° F and high humidity.



Varieties

Three varieties are highly recommended for Louisiana. All were developed by the LSU AgCenter, and all are adapted to our growing conditions. There are two red-skin varieties, Red LaSoda and La Rouge, and one white-skin variety, LaChipper.

Kennbec, a brown skin, white flesh potato; Yukon Gold, a yellow flesh potato; and Purple Majesty, a purple skin and flesh potato, also perform well in home gardens. The variety planted is determined primarily by the seed available locally.

Pest Problems

Weeds

Weeds are generally not a big problem in potato patches. If the soil is heavily mulched most weeds will be suppressed until potato plants form a canopy. Light cultivation is best to control weeds and avoid injury to developing potato tubers. Avoid deep cultivation since potato roots may be cut which may reduce yields.

Generally, tubers begin to develop when plants start to bloom. Be careful at this time not to cultivate too deeply. Since potatoes are sensitive to herbicides, mulching can be an effective option for weed suppression. Grasses such as crabgrass and bermudagrass can be controlled after they emerge with the active ingredient sethoxydim (Poast, Hi-Yield Grass Killer) without injuring potatoes. However, no herbicide options are available for controlling broadleaf weeds in the home garden without injuring the crop.

Insects

Aphids, Colorado potato beetles, wireworms and grub worms are the main insect pests in Louisiana. Aphids are often effectively controlled with horticultural soaps and oils. Colorado potato beetles are resistant to many commercially available insecticides, and poor control

often results after treatment. However, a strain of *Bacillus thuringiensis* (Bt) var. *tenebrionis* is an effective product available to home gardeners. *Bacillus thuringiensis* (Bt) var. *tenebrionis* can control young potato beetle larvae (1st and 2nd instar) but does progressively worse as beetles increase in age and size.

Begin applications of this product when egg masses begin to hatch, with repeat applications every few days. Applications on adult beetles or large larvae may result in poor control. Wireworms and grub worms can be effectively controlled with a broad-spectrum insecticide such as carbaryl before planting. Treatment of new ground is especially important before planting potatoes. Read all labels carefully before applying pesticides.

Diseases

Irish potatoes in Louisiana are susceptible to several plant pathogens but early blight and late blight are the two most common diseases that occur in home gardens.

Early blight is a foliar fungal disease that produces dark, circular spots containing concentric rings. As the disease develops, lesions appear on the stems and tubers. High relative humidity and extended periods of leaf wetness prompt infection to occur. Good cultural practices minimize disease conditions to develop, and use of chlorothalonil, copper or mancozeb help reduce disease infection and spread.

Late blight is a serious disease for Irish potatoes in Louisiana. Symptoms appear on all aboveground plant parts and tubers. Late blight is caused by a soil-borne fungal-like microorganism called *Phytophthora infestans*, the same pathogen that caused Irish potato famine in the late 1840s. Symptoms appear as irregular, water-soaked, dark necrotic lesions that rapidly enlarge, and entire leaf appears blighted within three to four days. Remove and destroy any infected plants. Spray plants on a regular basis with fungicides, such as chlorothalonil, mancozeb, copper or a combination of mancozeb plus copper.

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