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Easy Gardening

IRISH POTATOES • IRISH POTATOES • IRISH POTA-

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Irish potatoes are one of America's most popular vegetables—the average American eats about 125 pounds of potatoes and potato products each year.

The edible part of the plant is an underground stem called a tuber (not a root). Irish potatoes contain 2 percent protein and 18 percent starch. They are an inexpensive source of carbohydrates and, when prepared properly, provide good amounts of vitamins and minerals.

Irish potatoes are a cool-season crop; they grow best in early spring and late fall when the days are warm and the nights are cool. However, the tops of the plant cannot withstand frost.

Varieties

The most common types of Irish potatoes are red or white. Most red varieties store longer than do white varieties; on the other hand, most white varieties have better cooking qualities than red varieties.

Many gardeners plant some of each in the spring. The whites are used first and the reds stored for later use.

Several varieties grow well in Texas:

- Red flesh: Dark Red Norland, Norland, Red LaSoda, and Viking
- White flesh: Atlantic, Gemchip, Kennebec, and Superior
- Yellow flesh: Yukon Gold
- Russet: Century Russet, Norgold M, and Russet Norkatah

Site selection

For best production, potatoes need full sun. They do best in a loose, well-drained, slightly acid soil. Poorly drained soils often cause poor stands and low yields. Heavy soils can cause the tubers to be small and rough.

Soil preparation

Before spading, remove the rocks, trash, and large sticks from the soil. Spade

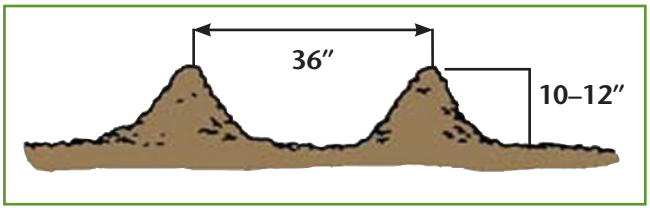

Figure 1. **Before planting potatoes, work the soil into beds 10 to 12 inches high and 36 inches apart.**

the soil 8 to 12 inches deep turning the earth over to cover all plant material.

Work the soil into beds 10 to 12 inches high and 36 inches apart (Fig. 1). Bedding is vital for drainage.

Because potatoes need adequate fertilizer early in the season, apply most of the fertilizer just before planting. Use 2 to 3 pounds of complete fertilizer such as 10-20-10 for each 30 feet of row in bands 2 inches to each side and 1 inch below the seed piece. Do not allow the fertilizer to touch the seed piece.

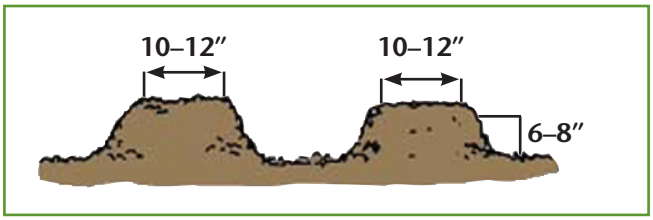

Figure 2. **Flatten the beds at 6 to 8 inches high and 10 to 12 inches wide.**

To apply the fertilizer, flatten the beds at 6 to 8 inches high and 10 to 12 inches wide (Fig. 2). Using the corner of a hoe or stick, open a trench about 4 inches deep on each side of the bed. Apply half of the fertilizer—about 2 cups for each 30 feet of row—in each trench.

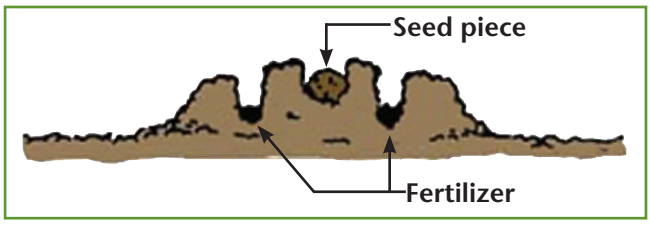

Figure 3. **Plant the seed pieces in a row between two bands of fertilizer.**

The seed pieces will be planted in the row between the two bands of fertilizer (Fig. 3).

Seed preparation

Unlike most other vegetables, Irish potatoes are not grown from seed. Instead, pieces from the potato itself start new plants. Buy good seed potatoes that are free of disease and chemicals. Do not buy potatoes from a grocery store for planting.

The seed potato contains buds or "eyes" that sprout and grow into plants. The seed piece provides food for the plant until it develops a root system. If the seed is too small, it will produce a weak plant. One pound of seed potatoes will make 9 to 10 seed pieces.

For a spring crop, cut large seed potatoes into pieces weighing about 1½ to 2 ounces, about the size of a medium hen egg. Each seed piece must have at least one good eye (Fig. 4).

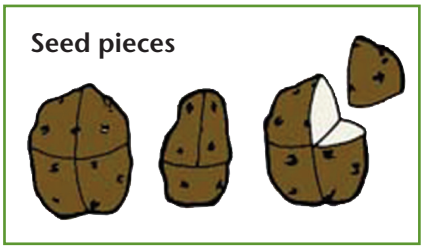

Figure 4. **Cut large seed potatoes into pieces, each having at least one good eye.**

Cut the seeds 5 or 6 days before planting. Hold the cut seed in a well-ventilated spot so it can heal over to prevent rotting when planted in cold, wet or very hot weather. Plants killed by a late spring frost will not come back if the seed piece is rotten.

For fall-grown potatoes, plant small, uncut potatoes because they are more resistant to rotting in hot weather than cut potatoes. Select mature potatoes about 1½ inches in diameter.

Potatoes have a rest period that must be broken before they will sprout. The rest period is more easily broken in small, mature potatoes.

To be sure the rest period is broken, store small seed potatoes under warm, damp conditions for 2 weeks before planting by placing them in a shady spot and covering them with moist burlap bags or mulch. The potatoes should have small sprouts at planting time.

Seed is usually more available in the spring than in the fall. Many gardeners buy extra seeds in the spring and hold it over for fall planting. For best storage, keep the potatoes in a cool, humid spot such as the bottom of a refrigerator.

Do not save your potato seeds for more than 1 year. This can cause buildup of virus diseases and reduce yield.

Planting

Plant potatoes when the soil temperature 4 inches deep reaches about 50 degrees F, or about 3 weeks before the last spring frost. In most areas of Texas, potatoes should be planted in February or early March. If planted too early, the tops can be frozen off by spring frost.

For a fall crop, plant about 110 days before the first expected frost, or mid-August in most areas.

Use a hoe or stick to open a trench about 3 inches deep down the center of the bed. Drop the seed pieces 10 to 12 inches apart in the trench (Fig. 5). Step on each seed piece after dropping it to ensure good contact with the soil.

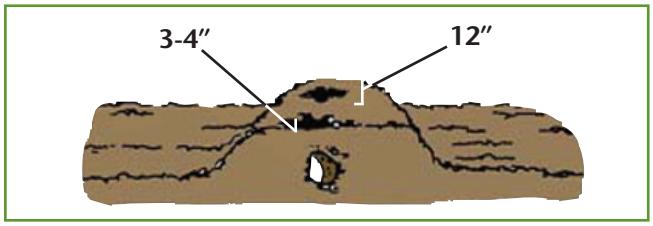

Figure 5. **Drop the seed pieces 10 to 12 inches apart in the trench.**

Cover the seed about 3 inches deep. If covered too deeply, the plants will be slow to break through the soil and will be more subject to disease and seed decay.

Fertilizing

The plant must have adequate moisture and fertilizer when the tubers are forming. This usually occurs when the plants are 6 to 8 inches tall. Apply 1 cup of fertilizer for each 30 feet of row beside the plants when they are about 4 inches tall.

Watering

During growth, keep the soil moisture supply constant. Water the fertilizer into the soil, especially on sandy soils.

Moisture stress followed by irrigation or rainfall can cause growth cracks and second growth (Fig. 6). If the rainfall is accompanied by hot weather, the rest period of developing tubers can be broken and can cause the tubers to sprout in the soil. Too much water enlarges the pores on the tubers and makes them rot easily in storage.

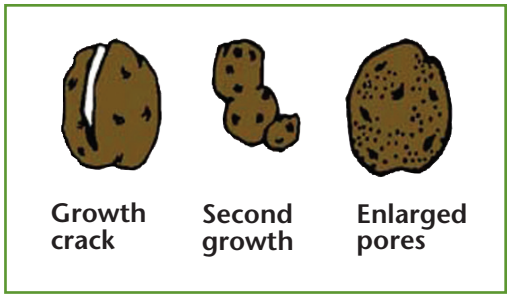

Figure 6. **Moisture stress followed by watering can cause growth cracks and second growth. Too much water causes enlarged pores on the tubers.**

Care during the season

All tubers produced on a potato plant arise from above the seed piece. Because

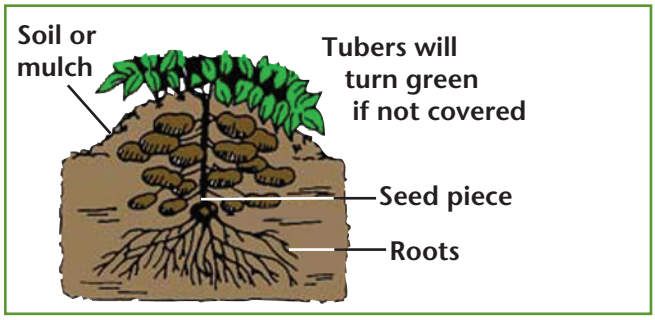

Figure 7. **Because all tubers produced on a potato plant come from above the seed piece, the soil must be pulled toward the plant as it grows.**

the seed piece is planted only 3 inches deep, soil must be pulled toward the plant as it grows (Fig. 7). This gives the tubers a place to form.

Some gardeners use thick mulch for this purpose. Potatoes formed in soft mulch often are smoother and have a better shape than those grown in soil. This is especially true if the soil is heavy.

As the potatoes enlarge, they must be protected from sunlight or they will turn green. Apply a thick layer of mulch when the plants are 8 to 10 inches tall to block sunlight, reduce soil temperature, and increase yield and quality.

Potato plants usually produce flowers and sometimes produce fruits (Fig. 8). The fruits bear the true seed of the potato plant. They look like small tomatoes but cannot be eaten.

Figure 8. **Potato plants usually produce flowers and sometimes produce fruits.**

Potato plants do not cross with tomato plants.

Insects

Many insecticides are available at garden centers for homeowner use. Sevin is a synthetic insecticide; organic options include sulfur and Bt-based insecticides. Sulfur has also fungicidal properties and helps in controlling many diseases.

Before using a pesticide, read the label and always follow cautions, warnings, and directions.

Name and description		Control
Flea beetle	1/16 inch long; metallic bronze, black, blue or green; jumps quickly; eats small, round holes in leaves	Sevin
Colorado potato beetle	**Adult:** black and yellow stripes; 3/8 inch long; **Larva:** red, light orange; two rows of black dots on each side; soft bodied; up to 3/8 inch long; feeds on leaves	Sevin
Aphid	1/8 inch long; green, pink, red, or brown; soft bodied; usually found on underside of leaves; sucks plant juices	Malathion
Wireworm	Yellow-white; dark head and tail; slender; 1/2 to 1 1/2 inches long; feeds on tubers	Weed control, sanitation and hand removal
Leafhopper	Green; wedge shaped; crawls sidewise when disturbed; up to 1/8 inch long; sucks juices from leaves; leaves curl upward and turn yellow to brown	Sevin

Diseases

Potatoes are troubled by several diseases. Treating seed pieces with a fungicide before planting can be helpful.

Check the plants daily and treat them with an approved fungicide if diseases appear. Neem oil, sulfur, and other fungicides are available for use. Always follow label directions.

A good rotation program is an effective way to control most potato diseases. If possible, do not plant potatoes in the same place more than once each 3 years. Do not follow or precede potatoes with eggplant, okra, pepper or tomato.

Seed piece treatment is especially important if your garden is too small for adequate rotation.

Harvesting and storing

Potatoes are ready to harvest when the tops begin to die and the potato skin becomes firm. The skin is set when it does not scrape easily when rubbed with the thumb. Skin set can be speeded by cutting back the tops of the plants.

Most of the potatoes should weigh 6 to 12 ounces at harvest. You can harvest small "new potatoes" during the growing season by carefully digging beside the plants with your fingers.

To harvest potatoes, dig under the plants with a shovel or spading fork. Keep the pitchfork 8 to 10 inches away from the plant to prevent cutting the potatoes. Raise the plants and shake away the soil.

Potatoes should be dug when the soil is moist. If it is too wet, the soil will stick to the potatoes. If too dry, dirt clods will bruise the potatoes.

Pull the potatoes from the vines and handle them carefully to prevent damage; damaged potatoes do not store well.

Allow the potatoes to dry; then store them in a cool spot with plenty of air movement. Most potato varieties are ready to dig 95 to 110 days after planting.

After the potatoes are dug, place the tops in the compost pile. The spring potato crop often can be followed with a summer crop such as southern peas.

Serving

Peel away the green areas on potatoes before cooking. For suggestions on how to prepare and serve potatoes, contact your county Extension agent.

Acknowledgments

This publication was revised from earlier versions written by B. Dean McCraw, former Professor and Extension Horticulturist.

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