



Home Garden Potatoes

Robert Westerfield and Caley Anderson



Potatoes are a wonderful and easy vegetable to grow for feeding the family, as well as for sharing with hungry neighbors. Potatoes are a cool-season crop most often planted in early spring in Georgia. In order to have a successful crop the homeowner must provide good soil, ample water and proper fertilization. This publication discusses selecting the right types of potatoes, proper planting, maintenance and troubleshooting problems.

Types of Potatoes

In Georgia, we primarily grow Irish potatoes or, as they are commonly known, thin-skinned potatoes. **The thick, russet-skinned potatoes sold in the grocery store do not grow well in the South and should be avoided.** Good-growing potato varieties include white- or red-skinned types as well as those with yellow, pink or purplish flesh.

The variety that you choose comes down to personal taste. White-skinned potatoes are popular because they are moist and tasty. Red-skinned varieties stand out at dinnertime because of their striking color and unique texture and taste. Potato cultivars come in a variety of colors, from purple (Caribe) to yellow (Agria & Yukon Gold), all fit to bake or broil.

Table 1: Commonly Grown Potato Cultivars

Cultivar	Description	Maturity	Use	Comments
Red LaSoda	High yielding. Light red skin. Oval tuber shape. Deep eyes may make peeling difficult.	Late	Fresh table	Wide adaptability, occasional hollow heart and growth cracks. Has tolerance for higher temperatures.
Red Pontiac	High yielding. Light red skin. Oval tuber shape. Deep eyes may make peeling difficult.	Medium	Fresh table, salad	Wide adaptability, occasional growth cracks. Stores well.
Norchip	Medium yielding. White skin. Round to oval tuber type.	Early	Chipping	Wide adaptability. Resistant to scab. Occasional growth cracks.
Kennebec	Very high yielding. White skin, shallow eyes. Oval to oblong shape.	Medium	Fresh table, chipping, French fries	Susceptible to scab blackleg, growth cracks and hollow heart. Cooking quality is excellent.
Sebago	High yielding. White skin, shallow eyes. Oval to oblong shape.	Medium	Baking, French fries	Good appearance. Occasional growth cracks.
Irish Cobbler	Round, white tubers. Well adapted.	Early	Fresh table	Good round appearance. Excellent flavor.

Table 2: New and Unusual Potato Cultivars*

Cultivar	Description	Maturity	Use	Comments
Cranberry Red	Red skin, pink flesh, round.	Medium	Bake, boil	Good smooth appearance.
Caribe	Purple skin, white flesh, oblong.	Early	Bake, boil	Good smooth appearance.
Keuka Gold	Tan skin, light yellow flesh, oblong to flat.	Early	Fair baker, excellent boiler	Very good appearance, slight netting.
Agria	Tan skin, yellow flesh, oblong to flat.	Medium	Excellent baker, good boiler	Very good smooth appearance.
Yukon Gold	Tan skin, yellow flesh, round to oblong.	Early to medium	Good baker, excellent boiler	Very good appearance, moderately smooth.
Goldrush	Tan skin, white flesh.	Medium	Good baker and boiler	Good appearance, slight netting.

* From the 1998 Pennsylvania Potato Extension and Research Report by William J. Lamont Jr. and Terrance W. Simpson

Preparing

Seeds

Potatoes are not produced from true seeds, but rather seed pieces. Purchasing certified tubers will help reduce disease problems in the crop. (Do not use potatoes purchased from grocery stores, as they are treated with a growth inhibitor.) The seed pieces of potatoes should be cut so that each seed has at least two eyes. Make cuts exposing the least amount of the cut surface as possible. Dispose of potatoes showing any internal dark rings or discoloration during the cutting process. Potatoes should be allowed to dry and heal over for a day after cutting and prior to planting. If planting is delayed, potato seeds can be stored for a few days at 55-60°F.



Soil

Potatoes can grow in a wide variety of soils but perform best when planted in a sandy loam amended with organic matter. Potatoes cannot grow in soils that are wet and boggy. They thrive in soils that are loose and loamy rather than in compact clay, which keeps them from getting the air and water they need. Raised beds are a great way to grow potatoes because of the improved drainage and high soil quality. Potatoes do best if organic matter is applied in the form of manure or compost in the early spring. Make sure to spread the organic matter throughout the soil using a rotary tiller or spading fork. Potatoes perform best in moderately acidic soil with a pH between 4.8 and 5.4. Soil test to check fertility requirements and the pH of your soil.

Planting

Plant the potatoes in rows 15 inches apart with 24 inches between each row. Potato seed should be planted 4 to 5 inches deep in the soil with the eyes facing up. Gently firm the soil over the top of the newly planted seed and cover with a few inches of straw or other mulch. Apply a complete fertilizer such as a 10-10-10 at a rate of 1.5 pounds per 100 square feet of garden.

When the sprouts are out of the ground about 6 inches high, begin hilling soil around them. With a hoe, pull soil from between the rows and be careful not to dig too deeply and injure roots. Fluff up straw or mulch over the potatoes to help prevent sunlight from penetrating down to the crop. Potatoes that develop in sunlight will be green and inedible.

Irrigation

Good soil moisture is necessary for all stages of plant growth. Uneven water distribution can cause problems such as knobs or growth cracks. Water is especially critical when the blossoms are forming. The soil does not need to dry out. Mulching the soil can help conserve water, reduce weeds and keep the soil temperature lower, resulting in a longer growth period and bigger harvest. Heavier soil needs watering at least once every five to seven days, but sandy soils may need even more frequent irrigation. It might be helpful to use a sprinkler for frequent irrigation, especially in warmer temperatures. When the plants begin to yellow and the lower leaves begin to die, reduce the irrigation rate. You do not want the tubers to rot from too much water late in the season.



Fertilization

Follow the fertilization recommendations on your soil test report. In lieu of a soil test, fertilize at planting as mentioned above and add an additional 1.5 pounds of 10-10-10 after vines spread out about 2 feet in diameter. Additional fertilizer can be added up to three weeks before harvest.

Harvest

Begin harvesting young “new potatoes” when flowers first appear on the plant. Carefully remove the first young potatoes near the soil surface, leaving the rest of the crop to mature for later harvest. When plants begin to turn yellow and fade, carefully dig potatoes with a shovel or pitchfork, taking care not to puncture the tubers. After harvest, spread the potatoes on dry ground for several hours to allow them to dry off. Do not wash potatoes until just prior to use, as this will cause them to rot. Store potatoes in a dark, cool place and out of direct sunlight.

Problems

Pests

Almost every crop known to man has to battle against three of the most irritating and perseverant pests: weeds, insects and disease. Any one of these can be a major problem if not kept in check.

Weeds

Weeds always pose a potential problem and compete for water, light and nutrients. Mulch can go a long way to helping prevent weeds from germinating. Pre-emergent and post-emergent herbicides can also be used to help control weeds. Weed control landscape fabric can also be used as a good organic weed prevention alternative.

Insects

Insects can also be a nuisance in the potato garden. One of the most troublesome of these pests is the Colorado potato beetle. These beetles move in before winter and then emerge in the spring to lay their eggs all over the potato plants. Both the larvae and the winged adult beetles can harm growing potatoes. Other harmful insects to watch out for include the cutworm, which may chew holes in the tubers and stems of your potato plants, and white grubs and wireworms, which bore into a potato's seed pieces and tubers. These pests can cause damage throughout the whole crop.

Control for all of these insect problems includes everything from handpicking to chemical sprays. Often, simple hand removal is all that is necessary to control the problem. When chemical control is warranted, begin by using the least toxic materials first, such as organic labeled products.

Disease

Disease is another problem potato plants may face. A few of the common diseases that occur in potato plants are early/late blight, rhizoctonia and common scab. Early and late blight are fungal diseases that damage stems and leaves, beginning at the bottom leaves and working their way to the top. Stressed plants are more susceptible; therefore, maintaining a good water supply and proper soil conditions will help to prevent it. As the sufferers of the Irish Potato Famine could tell you, late blight is one of the most important and destructive potato problems in the world. Rhizoctonia, also known as black scurf, is a common fungal tuber disease. The best way to prevent these common diseases is by using sound management practices: maintain proper pH, keep beds moist but not over-wet and apply pesticides only when necessary.

Environment

Some potato problems are caused by the environment in which the crop is planted. A few of the environmental problems your potato plant could experience include heat necrosis, blackheart, growth cracks, second growth and heat sprouts. Heat necrosis can occur when temperatures get too high and black streaks begin to appear on the potato. Cool-temperature storage can help reduce the problem of blackheart, a darkening close to the center of tubers. Growth cracks are probable if a potato plant does not receive enough water during a dry period. Another environmental problem that occurs after a dry period (or late fertilization) is second growth, or knobs, which cover the tuber. Heat sprouts occur in extreme heat periods when the stress breaks the natural dormancy of the late harvested potato.

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