



Growing Potatoes

Soil Potatoes are adapted to a wide range of soil types, though a deep, well-drained sandy loam is ideal. Sandy soils usually dry out and warm up earlier in the spring, making it possible to plant earlier. If irrigation is available, sandy soil will produce a good potato crop. Poorly drained soils should be avoided as they tend to produce poorly shaped tubers and excessive fall rains may contribute to tuber rot.

Grow potatoes in soils with a pH of 5.2 to 5.5 to prevent potato scab. If the level is higher, plant a scab-resistant variety, such as *Superior* or *Russet Burbank*, or apply a pH-lowering soil amendment such as sulfur, as recommended by a soil test. Depending on soil texture, 1.5 lbs of sulfur applied to 100 sq. ft. of growing area will lower pH by approximately one full unit (for example, from 6.2 to 5.2).

Seed Purchase certified seed potatoes (free of certain potato diseases), keeping them in a cool place until about two weeks before planting. Then “green-sprout” them at room temperature with high humidity, spreading them in a single layer exposed to light. A greenhouse is ideal, but a barn, shed floor or similar area with plenty of light will do. Turn the seed potatoes every four to five days to insure uniform green sprouts. The aim of green sprouting is to develop very short, strong sprouts that emerge and grow rapidly when planted.

Cutting Seed Small tubers 1½ to 2 inches in diameter planted whole make the best seed, but usually are not available. Larger tubers may be cut into seedpieces that are blocky in shape, have at least one eye and weigh between 1½ to 2 ounces. Ideally, plant freshly cut seed in a warm, moist soil immediately after cutting.

Variety selection Plant breeders have developed many potato varieties suitable for home gardeners. Though they are generally classified as early, mid-season and late, consider additional factors as disease resistance, intended use (baking, boiling, general purpose, winter storage) and, of course, flavor. Read catalogue variety descriptions carefully, talk to sales people at the garden center and consult experienced home potato growers before deciding which potato(es) to grow.

Fertilizing

There is a tendency for home gardeners to overfertilize potatoes. Excessive fertilization may cause excessive vine growth, sometimes lower yield and may lead to problems with tuber rot. Most well-established home gardens have a high fertility level, in which case a 10-10-10 fertilizer spread at the rate of about 3 pounds per 100 square feet, broadcast over the seedbed, should be adequate. Work it into the soil before planting; this will prevent direct contact between seedpieces and fertilizers, which may cause feeder root burning and seedpiece decay.

Although animal manures make excellent amendments to garden soil, any manures used should be well composted before applying them to soil in which potatoes will be grown.

Planting Plant potatoes in the spring as soon as soil is dry enough to work easily and has warmed to 45°F. Place seedpieces, cut side down, in a furrow four to six inches deep, spaced eight to 10 inches apart in rows 32 to 36 inches apart. (Space *Russet Burbank* 12 to 14 inches apart in the row.) Cover seed with about two inches of soil. At the above spacings, 16 to 20 pounds of seed potatoes will plant 100 feet of row.

Crop Rotation If possible, do not plant potatoes more than once within three seasons in the same area to avoid soilborne diseases. Whenever possible, avoid rotating potatoes with strawberries, tomatoes or legumes (such as beans or peas), since these crops can be infected with some of the same diseases that infect potatoes. Corn, cabbage-family crops and most vine crops are better alternatives, with corn being the best choice, as it will tolerate more acid soils than most other vegetables.

Weed Control And Hilling Control weeds by preceding potatoes with a cover crop, cultivation and hilling. When cultivating, avoid going close to the plants (especially important when using a tiller) and cultivating too deeply, to avoid pruning potato roots. Gradually hill soil up around the plants, starting when they are five or six inches tall, completing the process when plants are 12 to 15 inches high. When hilling, cover any weeds, but do not cover potato plants themselves. Under most conditions, two or three hillings will do an adequate job of weed control.

Insect and Disease Control Aphids, flea beetles and Colorado potato beetles are the most common potato insect problems. Late and early blight are disease problems affecting foliage. Both insect and disease problems can usually be controlled using a general purpose insecticide-fungicide mixture available at most garden supply centers. Weekly applications, starting when plants are eight to 10 inches tall, will usually control both insects and diseases. If weather conditions are dry, applications at 10-day intervals may be adequate. (For more detailed control recommendations, see individual UNH Cooperative Extension bulletins on Aphids, Flea Beetles and Colorado Potato Beetles)

Harvesting and Storage Potatoes of desirable size and quality may be harvested for immediate use at any time after the plants have blossomed. Harvest storage potatoes when soil and air temperature cool down, and most of the tops have yellowed, typically around mid-September. Ten days before harvesting, cut or pull vines. Dig the crop when soil is dry, if possible, lifting tubers carefully and setting them to dry for an hour or two on top of the soil.

Select only sound potatoes for storage, discarding any that are rotted or injured, or cut out the bad spots and use them immediately. Store potatoes in a dark, very humid environment with temperatures of 37° to 40°F. Use pallets to keep potatoes off damp floors, provide circulation and avoid potential storage rots.

*adapted from an original fact sheet by Edwin S. Plissey, University of Maine Cooperative Extension Potato Specialist and Wilfred H. Erhardt, University of Maine Cooperative Extension Vegetable Specialist
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