



Sweet Potatoes

Sweet potatoes (*Ipomoea batatas*) can be grown in the warmer areas of northern Arizona. Usually, this warm season crop requires a long, hot growing season, but there are some varieties suited to cooler climates. Sweet potatoes are native to Central and South America and are members of the morning glory (Convolvulaceae) family.

Sweet potatoes are classified as soft-fleshed or firm-fleshed. The soft-fleshed varieties are sweet and have orange flesh and are often called yams. Yams are not true sweet potatoes and are in a different plant family: Dioscoreaceae. The firm-fleshed varieties have light orange, yellow, or even white flesh and can be stored for longer periods.

Sweet potatoes can be grown in any fertile, moist, nutrient-rich soil. The variety 'Centennial' is more tolerant of clay soils. Prepare soil by adding 4 to 6 inches of well-composted organic matter and 1 to 2 lbs of all purpose fertilizer (16-16-8) per 100 square feet. Work complete fertilizer into the soil to a depth of 6 to 8 inches. Rake soil to create 8 to 10 inch tall raised beds to provide good drainage and promote root development.

Sweet potatoes are grown from "slips" or stem cuttings, which are plant sprouts from the root. Several named varieties are available from seed catalogs. They can also be grown from vine cuttings. If you only need a few plants, you can grow your own slips from a root suspended in a container of water with toothpicks (like we did when we were kids). If more plants are desired, place several sweet potato roots about one inch apart in a hotbed and cover with 2 inches of sand or light soil. Add another 1 to 2 inches of sand when the shoots begin to appear. Keep the soil in the bed moist throughout the sprouting period, but never allow it to become waterlogged. Maintain a soil temperature of 70-80°F.

Slips can be removed from the sweet potato when about 8 to 10 inches long and placed in a jar of water to grow roots. Once roots form, they can be planted in the field after the danger of frost is over. Plant slips in rows 36 to 48 inches apart, spaced 12 inches apart within the row. A good slip should have 4 to 5 leaves and a healthy root system. Provide regular irrigation after planting to help the young plants become established.

Mulches will conserve moisture and reduce weed problems. Early sweet potatoes can be planted through black plastic mulch up to ten days before planting in uncovered soil. Floating row covers can provide additional frost protection. Provide ample water after planting and as transplanted slips are establishing. However, as the plants mature, they should be watered with moderation. Once established, sweet potatoes are quite drought tolerant. Excess watering after establishment can cause root cracking. Sweet potatoes should be side dressed with additional nitrogen fertilizer in early July for optimum vine growth and tuber sizing.

Sweet potatoes can be harvested when roots are 1½ to 2 inches thick. Most gardeners wait until the foliage starts to turn yellow or after the first frost damages the leaves, but before the soil freezes. Use a spading fork or shovel and carefully dig up the swollen roots being careful not to bruise, cut or otherwise damage them. The roots store best when cured for 1 to 2 weeks at 80°F and then stored in a cool, dry location (50-55° F). Expect 1 to 2 lbs of roots from every plant. When properly cured, sweet potatoes can be stored for 3 to 4 months.

Sweet potatoes are relatively pest free, but watch for flea beetles and cutworm damage. Flea beetle larvae feed on roots and stunt developing plants. Adults may be seen hopping on the soil surface and feeding on leaves creating very small holes in them. Row covers may prevent adults from laying eggs. Cutworms mow off young plants at the soil surface. Seedlings can be protected from cutworms with a 3" collar pushed into soil around plant stems. To protect from cutworms, you can plant young plants and seeds inside 16 oz paper cups with the bottoms removed. This creates a physical barrier and decomposes as the crop matures. Appropriate insecticides can also be used if desired.

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