

Sweet Potato

The sweet potato (*Ipomoea batatas*) belongs to the family Convolvulaceae. Its large, starchy, sweet tasting roots are an important vegetable. Its young leaves and shoots can be eaten as greens. The sweet potato, probably originated in the tropical parts of South America, and was domesticated there at least 5000 years ago. It was also grown before western exploration in Polynesia (thus the question about its origins), where it is known as the kumara. It is a very tender annual and requires hot (70° F to 85° F) temperatures to produce well. It will tolerate relatively dry weather.

Two types of cultivars are produced in the United States. Those with moist flesh are derived from the cultivar 'Porto Rico' and sometimes are called yams. The dry, lighter-colored roots termed 'Jerseys' are adapted to northern areas and produce short, chunky roots, but they do not store as well. The true yam (*Dioscorea* spp.) is grown primarily in tropical and semitropical areas for its tubers.

Planting:

Plant sprouts (called "slips") after the soil has warmed to at least 65° F. The sprouts should be placed 1 foot apart in rows 40 inches apart. If possible, plant them in ridges to allow the soil to warm faster in the spring. This will also improve drainage and give the roots room to expand. Ridging also makes harvesting easier. Sweet potatoes prefer light, sandy soils but will grow well on heavier soils, high in clay.

Cultivation:

- **Fertilizing** – Side-dress with nitrogen or 3 tablespoons of 10-10-10 equivalent per 10 feet once or twice during the growing season.
- **Watering** – Keep plants uniformly supplied with moisture for best performance. Sweet potato is sensitive to drought for the first 50 to 60 days after planting. Water deeply and regularly during dry

periods. But excessive water can cause root rots and roots to split.

- **Weeding** – Remove weed seedlings by hand or with a hoe until plant begins to grow. The rapidly growing vines will shade out weeds, so little additional weeding is needed.
- **Special directions** – Sweet potato slips may be difficult to source locally (you can always find them on-line), but you can grow your own. Sweet potatoes are storage roots, not tubers, so new shoots will emerge along the entire root. The process from bedding to planting takes about six weeks. Here are some tips for growing your own:

- Buy certified seed stock at a garden center or your favorite varieties from a market. Wash the latter to remove anti-sprouting chemicals.
- Cover the bottom of an 8-inch deep container or box (with drainage holes) with 2 to 3 inches of sand or soil-less growing mix.
- Slice the roots lengthwise and place them cut-side down in the container. Cover with 2 to 4 inches of sand or growing mix.
- Keep roots moist, warm (75° to 85°F), and covered with plastic until plants emerge.
- Remove plastic. Grow plants directly under cool, white fluorescent tubes for 14 to 16 hours per day.
- Pull slips from bedded roots and plant after danger of frost. Slips are rootless when pulled from the mother root. Keep them well-watered.

Harvesting:

The foliage is edible and very nutritious. Eat it fresh in a green salad or sauté with other vegetables. Harvest roots

as soon as they reach eating size and before a frost. Sweet potatoes generally mature in 85 to 120 days. Check root size after 80 to 85 days. Digging is easier if the vines are first cut off. If vines get frosted, dig roots immediately because decay in dead vines passes down to the roots. If immediate digging isn't possible, cut away vines and throw loose soil over the rows to protect them from the cold. Temperatures below 55° F can cause chilling injury. Approximate yield is 20 to 40 pounds per 10 foot row.

Storage and Preservation:

Ideally, try to cure the roots at 85°F and 90% to 95% RH for 4 to 8 days. Curing causes conversion of starch to sugar. After curing, store at 55° to 60°F at 85% to 90% relative humidity.

Authors: Jon Traunfeld, Extension Specialist, Vegetables & Fruits; Jeanine Smetana, Bob Nixon and Peggy Yen, University of Maryland Extension Master Gardeners; April 2010

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Author: Jon Traunfeld, University of Maryland Extension Specialist, Home and Garden Information Center, Vegetables & Fruits; Jeanine Smetana, Bob Nixon, and Peggy Yen, University of Maryland Extension Master Gardeners

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