



Reviewed by Dan Drost, June 2010

# Sweet Potatoes in the Garden

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## Summary

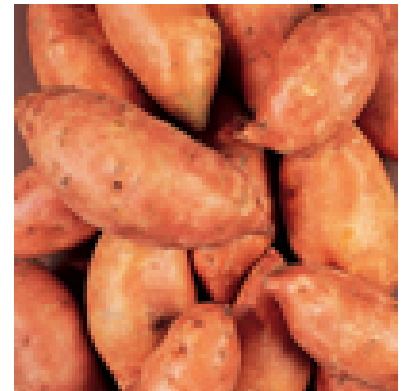
Sweet potatoes (*Ipomoea batatas*) are a delicious crop that is high in vitamin content. It is a warm season crop that grows best in long, hot growing seasons. There are many varieties to choose from, with shorter maturity varieties suited to cooler climates. Sweet potatoes are members of the morning glory family, are relatively pest free, and can be stored for a long time after harvest.

## Recommended Varieties

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. The firm-fleshed varieties have light orange, yellow, or even white flesh and can be

stored for longer periods. Sweet potatoes can have long vines, but many compact bush varieties now exist. Vines can be trimmed on non-bush varieties.

Try any of the varieties listed below by matching the maturity period to local growing conditions. Plants generally have to be ordered from seed catalogs or specialty growers if specific varieties are desired. Most varieties perform well in Utah.



### Recommended Varieties:

Varieties	Days to Maturity	Skin and Flesh Color
Beauregard	105-110	Dark orange flesh, light purple skin
Bush Porto Rico	110	Orange flesh, copper skin
Centennial	90-100	Orange flesh, orange skin
Georgia Jet	90-100	Orange flesh, red or purple skin
Jewel	120-135	Orange flesh, copper skin
Sumor	110-120	Light yellow flesh, tan skin
Vardaman Bush	110	Orange flesh, gold skin
Carolina Bunch	110-120	Deep orange flesh, copper skin

## How to Grow

**Climate:** Sweet potatoes grow best in warm to hot climates. Plants can be damaged by temperatures below 50°F. The roots mature in 4 to 5 months.

**Soil:** Sweet potatoes grow best in all soil types provided they are fertile, moist, well drained and nutrient rich. Centennial is a clay tolerant variety.

**Soil Preparation:** Incorporate 4-6 inches of well-composed organic matter and 1-2 lbs of all purpose fertilizer (16-16-8) per 100 square feet. Work complete fertilizer into the soil to a depth of 6-8 inches. Form 8-10 inch tall raised beds to provide good drainage and a place for root development to occur.

**Plants:** Sweet potatoes are grown from slips, which are plant sprouts from the root. They can also be grown from vine cuttings. If you only need a few plants, grow your own slips from a root suspended in a container of water. To grow more plants, 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. The slips are ready to pull in about 6 weeks (when they are rooted and 6 to 8 inches tall).

**Planting and Spacing:** Slips are planted in the field after the danger of frost is over. Plant slips in rows 36-48

inches apart, spaced 12 inches apart within the row. A good slip should have 4-5 leaves and a healthy root system. Water regularly after planting to help the plants establish.

**Mulches:** Use of mulches will conserve moisture and reduce weed problems. For early sweet potatoes, plant through black plastic mulch up to ten days before planting in uncovered soil. Use floating row covers for additional frost protection.

**Water:** Sweet potatoes are quite drought tolerant. Provide ample water after planting, and as they are establishing. However, as the plants mature, they should be watered with moderation. Late watering can cause root cracking.

**Fertilization:** In addition to the fertilizer applied at planting, sweet potatoes should be side dressed with additional nitrogen fertilizer at ½ lb (21-0-0) per 100 square feet in early July for optimum vine growth and tuber sizing.

## Problems

**Weeds:** Control weeds when the plants are young and getting established. Use a mixture of cultivation and mulches. Once established, the vines will out-compete most weeds. Avoid deep cultivation that can damage the roots and slow vine extension.

### Insects and Diseases:

Insect	Identification	Control
Flea Beetles	Small white maggots that feed on and burrow into the developing root.	Use soil applied chemicals at planting or cover young emerging seedlings with fabric row covers to exclude egg-laying adults.
Cutworms	Green, reddish, or black caterpillars up to 2 inches long. Cutworms do most of their feeding near the soil surface and eat through the stems causing the plant to fall over and die.	Control weeds and debris in the garden that provide cover for worms. Use appropriate insecticides if populations are high.
Disease	Symptom	Control
Scurf	Black fungal spots on infected roots.	Grow resistant varieties, rotate planting areas; don't over water.
Black Rot	Fungal diseases that cause decay and rotting of the root. Causes sunken lesions on young slips and mature roots.	Grow resistant varieties; rotate planting areas; don't over water.

## Harvest and Storage

Sweet potatoes can be harvested when roots are 1½ to 2 inches thick. Some roots may be “harvested,” starting in late summer, by digging into the side of the bed and removing some developing roots while leaving the plant in place. 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 careful dig up the swollen roots being careful not to bruise, cut or otherwise damage them. The roots store best when cured for 1-2 weeks at 80°F and then stored in a cool, dry location (50-55° F). When properly cured, sweet potatoes can be stored for 3-4 months.

harvest will cause the roots to split. Sweet potatoes like a dry period before harvest which helps cure the roots and prepares them for storage.

### *Q. Are yams and sweet potatoes the same thing?*

Moist-fleshed varieties of sweet potato are often called “yams.” However, sweet potatoes are not true yams, which belong to a different plant family, called *Dioscoreaceae*. Sweet potatoes belong to the morning glory family (*Convolvulaceae*) and are related to morning glory and field bind weed. True yams are rarely found in local grocery stores, vary greatly in size, need a very long, warm growing season, and are commonly grown only in the tropics.

## Productivity

Sweet potatoes produce very large roots in a long growing season. Expect 1-2 lbs of roots from every plant. Plant 5-10 slips per person in order to have sufficient for fresh and storage purposes. Productivity depends on variety planted.

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## Nutrition

Sweet potatoes are an excellent source of vitamin A and vitamin C, carbohydrates, and fiber. They also supply lots of calcium and iron.

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## Frequently Asked Questions

### *Q. Why are the tubers cracked when I dig them up?*

Heavy rains or over irrigation during the 3 to 4 weeks before

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