

Sweet Potato Growing Guide

Despite their name, sweet potatoes are not related to Irish potatoes. In fact, they are members of the morning glory family! One of the most nutritious vegetables around, sweet potatoes are high in vitamins A and C, potassium, antioxidants, fiber, and complex carbohydrates.

Sweet potatoes are native to the tropical lowlands of Central America and parts of South America, where they have been cultivated by Indigenous Peoples for thousands of years. The crop slowly made its way across the globe by various routes and modes of transport. For example, one hypothesis holds that thousands of years ago Polynesian seafarers traveled to Central America and traded with peoples there, and they subsequently brought sweet potatoes back to Polynesia. The plants were then brought to Hawai'i. There, they were so widely cultivated that there were over 200 varieties of *'uala* (the Hawaiian word for sweet potatoes) being grown in Hawai'i before European contact.



The cultivation of sweet potatoes also expanded overland from their native range into North America, where Native American tribes grew sweet potatoes prior to European contact. Sweet potatoes were then brought to Europe by Christopher Columbus in the fifteenth century. Spanish and Portuguese explorers carried these nutritious tuberous roots around the globe, introducing them to the Philippines and eventually to China, where they became a dietary staple that helped stave off famine, supported population growth, and profoundly influenced the course of Chinese history.

Sweet potatoes are warmth lovers and grow best in southern gardens. But with a little extra effort, even gardeners in many northern areas can reap a respectable harvest of these tasty, nutritious tuberous roots.

Sweet Potato Facts

- Sweet potatoes (*Ipomoea batatas*) come in a rainbow of colors. Both the skin and flesh of sweet potatoes can be found in shades of orange, tan, red, and purple.
- Although they are often referred to as yams, sweet potatoes are not actually yams. A true yam is an entirely different and botanically unrelated, edible tuber that is starchy, not sweet, with coarse, tough, almost bark-like brown skin. True yams are grown as a food crop mainly in tropical climates in Africa, Asia, and the Caribbean.
- Sweet potatoes are North Carolina's official state vegetable. This state is also the leading producer of sweet potatoes in the U.S.
- George Washington Carver, working in the early part of the twentieth century, developed 118 different products from the sweet potato, including dyes, candies, molasses, wood filler, and library paste!
- The Okinawan sweet potato, known as *beni imo* in Okinawa and Japan, is favored for its purple skin and flesh. The variety originated in South America and was brought to Japan in the 1600s. They were then brought to Hawai'i with Okinawan sugar plantation workers in the early 1900s and grew into a local favorite.

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How to Grow

Unlike many common garden veggies grown from seed, sweet potatoes are grown from rooted cuttings called slips.

Choosing Varieties

Sweet potato cultivars fall into two main categories: those with moist flesh and those with dry flesh. Varieties with moist flesh are the most popular. They generally have bright orange or deep yellow, very sweet flesh, and grow best in warmer climates, although there are a few varieties, such as 'Beauregard' and 'Georgia Jet' that mature relatively quickly and do well in northern gardens. Dry-fleshed varieties, with yellow, white, or purple flesh, are starchier and not as sweet and also offer some varieties that do well in cooler climates.

Choosing a Planting Site

Be sure the soil in your sweet potato bed is well-drained. Plants need full sun, although those grown in the warmest areas may tolerate a little afternoon shade. Sweet potatoes are vining plants, so be sure there is plenty of space for the vines to run.

Planting Sweet Potatoes

Sweet potatoes are started from rooted cuttings called slips that are planted in the garden when the soil is warm (at least 55°; 65° is best), and all danger of frost is past, usually a couple of weeks past the average last frost date.

Slips can be purchased from mail-order nurseries or local garden stores. Don't be alarmed if slips look limp before planting time; they will revive once they're in the ground. You can also start your own slips if you have disease-free sweet potatoes stored from the previous growing season. Starting slips from supermarket sweet potatoes isn't recommended as they are often treated to prevent sprouting, and you won't know which variety you have and whether it's suitable for your climate.

To produce homegrown slips, stick several toothpicks into the middle of a sweet potato and set it in a jar so that the toothpicks rest on the rim of the jar. Fill the jar with enough water to submerge the bottom half of the sweet potato. Place in a warm spot out of direct sun and change the water weekly. In a couple of weeks, green sprouts will emerge from the sweet potato. When the sprouts are at least 6 inches long, twist or pull them off the sweet potato. Place the sprouts in a new container with enough water to cover their bottom ends. Roots will form in about ten days. Once they have formed roots, the slips are ready to be planted.

Plant slips about 3-4 inches deep about a foot apart in rows spaced 3 feet apart. Sweet potatoes can also be grown in a large (20-gallon) container.

In northern gardens, it's a good idea to raise the soil in the sweet potato bed into mounds or ridges and then pre-warm the soil by covering it with black or infra-red transmitting plastic mulch two weeks before the last frost date. Lay some drip irrigation lines before putting the plastic down. Then you can cut slits in the plastic through which to plant the slips, leaving the plastic in place. Cover newly planted slips with row cover fabric for several weeks to give some protection from cool night temperatures.

Caring for your Sweet Potatoes

Keep sweet potato plants weeded and watered consistently, especially as they get established. Plants don't need much added fertilizer if the soil was well prepared before planting time; too much nitrogen fertilizer results in lots of leaves but few tubers.

Troubleshooting

Tunnels or holes in tubers: Tunnels or holes in sweet potato tubers may be the work of one of several pests. Wireworms are golden-brown,

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shiny, segmented worms that are the larvae of click beetles. In southern areas, the white, worm-like larvae of the sweet potato weevil may tunnel through plants into the roots. Sweet potato flea beetle larvae chew shallow tunnels just under the surface of the tuber.

Trap wireworms by burying chunks of Irish potatoes in the ground, with a stick shoved into each chunk so that it protrudes above the ground. Wireworms will be attracted to the potato chunks, which can then be pulled up and destroyed. Rotate the location of sweet potatoes in the garden on a 3-year cycle and cultivate the soil in the fall to expose wireworms to cold and predation. To prevent weevil damage, start with certified weevil-free slips; rotate the location of sweet potatoes in the garden on a 3-year cycle; and mound soil around the base of the plants to discourage egg-laying. Flea beetle adults are small, black beetles that jump when disturbed. They chew small holes in leaves, but most of the damage to sweet potatoes is done by their white, worm-like soil-dwelling larvae. To minimize their feeding damage, rotate crops, keep weeds down, clean up plant debris well at the end of the season, and look for resistant varieties. Cover plants as soon as they are set out with row covers to prevent adult flea beetles and sweet potato weevils from laying eggs.

Root knot nematodes: Infestation by these small, worm-like soil dwellers cause stunted plants that don't yield well, as well as cracks and internal black spots in tubers. To minimize problems, look for resistant varieties, rotate the location of plants in the garden, add lots of organic matter to the soil to encourage the soil organisms that keep nematodes in check, and till the soil in the fall a couple of times after harvest.

Blackened leaves: Sweet potato plants are very sensitive to cool temperatures; even temperatures between 40-50°F will damage leaves. In northern growing areas, cover plants with row covers near the end of the season to protect them from night-time lows and harvest plants before night temperatures dip below 50°F. If some leaves are blackened by cold, cut them off right away and harvest your tubers as soon as possible.

Harvest

Sweet potato tubers will keep getting larger as long as the weather is warm enough; unlike Irish potatoes, their tops will not start to die back naturally. Use the days to harvest for the variety you're growing as a guide, but harvest while night temperatures are still in the 50s to avoid chilling injury. Cut back the top growth first; then dig tubers out carefully to avoid nicking or bruising them. Move them out of the sun to a warm, humid spot (minimum 70°F; ideal 80-85°F) to cure for 10-14 days. Cured tubers will store better and taste sweeter. After curing, store tubers in a spot with temperatures in the 55°-60°F range.

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