

Sweet Potato Growing Guide

2019-2020 edition



“Sweet potatoes are an ideal crop for ease, productivity, and nutrition.”

“Sweet potatoes are one of those plants that if we pay attention to them, we will never go hungry.”



www.newsproutfarms.com

Caring for Your New Sweet Potato Slips

Open Immediately

Open your package as soon as it arrives and remove the slips from their containers. Please note that not all slips have roots or leaves; they are still viable without roots or leaves

Plant Your Slips As Soon As Possible

Set your slips in the field as quickly as possible after receiving them. You may also choose to "heel" your slips by planting them temporarily in a trench, container, or a 72-tray. Heeling effectively keeps the slips alive and some growers purposely heel their slips to grow roots on them before transplanting their slips into their final location. You can also plant bare-root slips and they do fine. It depends on your preference.

Use Caution When Putting Slips in Water

Beware that slips kept in water are prone to rotting. Do not allow your slips to become "full of water", as they will rot in the soil after planting. We recommend a quick dip or spray with a bottle to re-hydrate your unplanted slips if need be.

Planting Your Slips

No Frost Allowed

Avoid planting slips until all danger of frost is past because they are very frost sensitive. You can begin transplanting slips at a ground temp of at least 60 to 65 degrees.

Spacing

Space slips 8 to 15 inches apart within rows spaced 3½ to 4 feet apart on row centers. The number of slips needed per acre will depend on your desired spacing.

To determine the number of transplants required per acre for any spacing: Divide 43,560 (# of square feet per acre) by the product of the desired spacing between slips and the desired spacing between the rows.

For example, a 12-inch between-plant spacing on 48-inch bed centers would require 10,890 plants per acre: 12 inches x 48 inches or 1 foot x 4 feet = 4 feet squared; then divide 43,560/4 = 10,890 plants per acre.

Transplanting

Beds should be 4 to 8 inches high and as wide as equipment will allow. Narrow beds tend to dry quickly and may reduce overall yields. High beds will aid in promoting drainage, thus preventing water damage to roots. The most economical method to set a large number of plants is with a mechanical transplanter.

Here is some basic planting advice for sweet potato slips:

- Don't plant too deep. About half the slip's length is a good depth, maybe a bit more.
- When planting, firm the soil around the slip well. (pack it down good and tight)
- Plant in whatever direction the soft dirt is.

If you are using drip tape to irrigate, set up your drip tape before you plant and run it to see where the emitters are. This reveals to you where you need to plant.

Planting (cont.)

Water Management

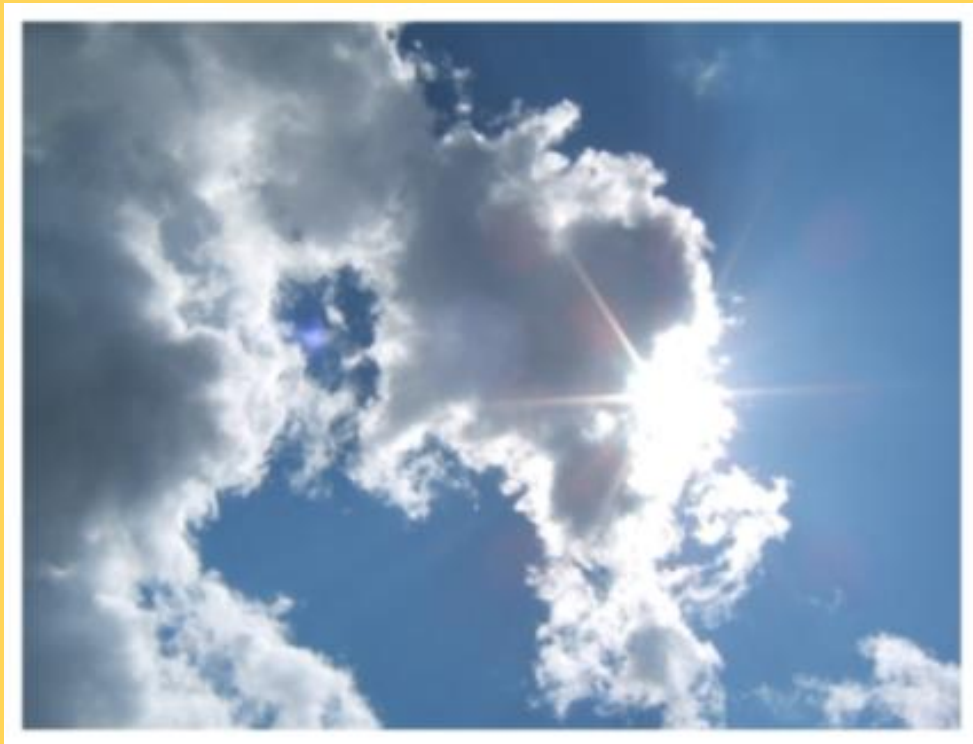
Be sure to manage water carefully to avoid transplant shock.

At transplanting, a light irrigation of 0.50 to 0.75 inches per acre will help establish young slips by providing a ready supply of water to young, developing roots.

New plants, like slips, need to be watered everyday for the first week and every other day the second week. Each week the watering will get a little farther apart until you're watering once a week.

PRO Tip: Instant Exposure to Full Sun and Heat Will Scorch Leaves

Sweet Potatoes love growing in the full sun. However, newly transplanted slips will take about three days to start establishing new roots, and are sensitive to drying out fully exposed to the sun during this period. If it is really hot and dry, wait until late afternoon to plant. You can also shade newly planted slips with clay pots (small-scale) or non-insulating row covers for the first few days to reduce the chance of scorched leaves.



An ideal time to plant your slips is right before a few cloudy days.

Sweet Potato Growing Guide

Temperature

The optimum temperature to achieve the best growth of sweet potatoes is between 70 and 85 degrees F, although they can tolerate temperatures as low as 65 degrees F and as high as 95 degrees F.

Soil

Well-drained sandy and sandy loam soils will produce the best-shaped sweet potatoes. In heavy clay, grow them in raised beds amended with compost and sand. Sweet potatoes need loose, well-drained, aerated soil to form large tubers. You don't want the roots to face resistance when they try to expand within the soil. Loose soil is more critical than almost any other factor when it comes to growing sweet potatoes successfully.

Sweet potatoes like lots of compost and will thrive in mulched beds.

Soils with high levels of organic matter can promote scurf, a disease characterized by roughened skin. Use long rotations to decrease the incidence of scurf and infection from Fusarium wilt. Avoid fields that have produced a crop of sweet potatoes in the past 2 years and fields that have high nematode populations and are seriously eroded or grassy.

Select a soil that is well drained but not prone to drought. Waterlogged, poorly drained soils prevent roots from obtaining sufficient oxygen, which can cause "souring" of roots

The optimum pH range is 5.8 to 6.2. If your soil needs lime, incorporate the appropriate amount several months before planting.

Fertilization

Don't overdue nutrition (especially with nitrogen) . This will lead to an overabundance of top-growth and minimal root growth.

Test your soil to determine whether it has the proper level of nutrients necessary to produce high yields of quality roots.

Historically, sweet potatoes have been a poor soil crop that produces a decent harvest in imperfect soil, but will do much better with a little fertilizer. About 2 weeks after planting, feed plants with a balanced organic or timed-release fertilizer.

Under average soil and water conditions, the current fertilizer recommendation for sweet potato production is 80-90 pounds of nitrogen (N) for Covington (40-50 pounds of nitrogen is sufficient for Orleans and Murasaki), 60-80 pounds of phosphorus, and 150-160 pounds of potassium (K20) per acre. Broadcast or band half of the required nitrogen (N) before planting and then side-dress the remainder when the vines begin to run.

Late season fertilizing is a good technique. The plant forms roots early in its life. Make it dig and work hard initially to form all the roots, then fertilize the plants late in the season to encourage further growth of all the roots already developed.

Alternatively: We suggest occasional spraying with a weak foliar fertilizer during the growing season.

Growing Guide (cont.)

Weed Management

Be sure to prepare the land in which you are going to plant sweet potatoes. Maintaining the proper soil pH and applying fertilizer next to the row of sweet potatoes instead of broadcasting fertilizer through the field will increase the competitiveness of the crop compared to the weeds. Avoid fields with a history of extreme weed pressure. Cultivate to control weeds during the early stages of growth.

Thoroughly weed your sweet potatoes 2 weeks after planting. Pull the weeds gently. If possible avoid deep digging with a hoe or other tool that disturbs the feeder roots that quickly spread throughout the bed.

Irrigating

Sweet potatoes require approximately 1 foot of water per 3 weeks (½ inch of water per day).

Do not overwater. Once established, let mother nature take care of it. Keeping it wet will not lend to growing more roots. Roots that dig deep to find water will yield more potatoes.

Although sweet potatoes are a deeply rooted and drought tolerant crop, they still require sufficient moisture to grow and produce quality roots. Sweet potatoes can withstand drought but they'll produce less, so make sure you water them during the hottest part of the summer.

Excessive moisture can cause extravagant vine growth and undesired elongation of roots. The most critical moisture period for the sweet potato is during root expansion and the last 40 days before harvest. At the end of July and August, roots are formed. Thorough watering at this time will inflate the roots resulting in yields of heavier, larger sized sweet potatoes.

In dry summers, the ability to provide irrigation can mean the difference between producing high yields of quality roots and poor yields of off-shaped, less marketable roots.

Water supply fluctuations can cause the development of small or misshapen roots. These fluctuations can also cause growth cracks to develop in the roots of the sweet potato. In either case, defects will render sweet potatoes less marketable.

Pest and Disease Management Tips

Use a 2-3 year rotation when growing sweet potatoes.

Select land that has minimal history of drainage, disease, insect, nutrient and weed problems.

Major pests include deer, moles, and voles. Organically allowed products include: Skydd pellets, Shakeaway critter control, Surround™, and of course row covers and deer fence.

Purchase certified seed from a reliable source ✓

Don't Worry

Sweet potatoes are tough. Just don't keep growing them in the same place or you may end up with pest and/or disease issues.

Harvesting & Curing

Sweet Potatoes can take 90 to 150 days from plant date to harvest date depending on variety and weather conditions.

When it starts getting cold outside, it's time to harvest what you have. If you wait too long, frosts can ruin your potatoes. They are usually ready to harvest just as the ends of the vines begin to turn yellow. When you harvest them, be gentle! You want the skins to stay as intact as possible to keep them from rotting in storage.

To avoid injuring tubers, find the primary crown of the plant you want to dig, and then use a digging fork to loosen an 18-inch wide circle around the plant. Pull up the crown and use your hands to gather your sweet potatoes. To make digging easier and get the vines out of your way, you can cut some of them away before digging.

Curing brings sweetness and gives storage capabilities. Shake off soil, and then lay the unwashed sweet potatoes in a warm (80°F to 90°F), humid, well-ventilated place for about 10 days. (Curing can take 4 days to 2 weeks.) As the sweet potatoes cure, any scratches in the skins should heal, and the flesh inside will become even sweeter and more nutritious. This is very important, as fresh, uncured potatoes do not bake as well.

When they are sweet and have "corked" in all the open scratches and nicks they are ready.

Store at 55-60 degrees. Going below 50 degrees will lead to decreased shelf life.

Further Uses for Sweet Potatoes

The plants produce lush vines that make a pretty ground cover, so they are a great crop for beds that adjoin areas that are difficult or tiresome to mow.

Beyond the roots themselves, the extensive vines make a great mulch/compost at the end of the year.

Damaged, bug-eaten or tiny roots make good chicken feed. They seem to prefer them cooked, but they'll still peck away at raw ones when they feel like it.

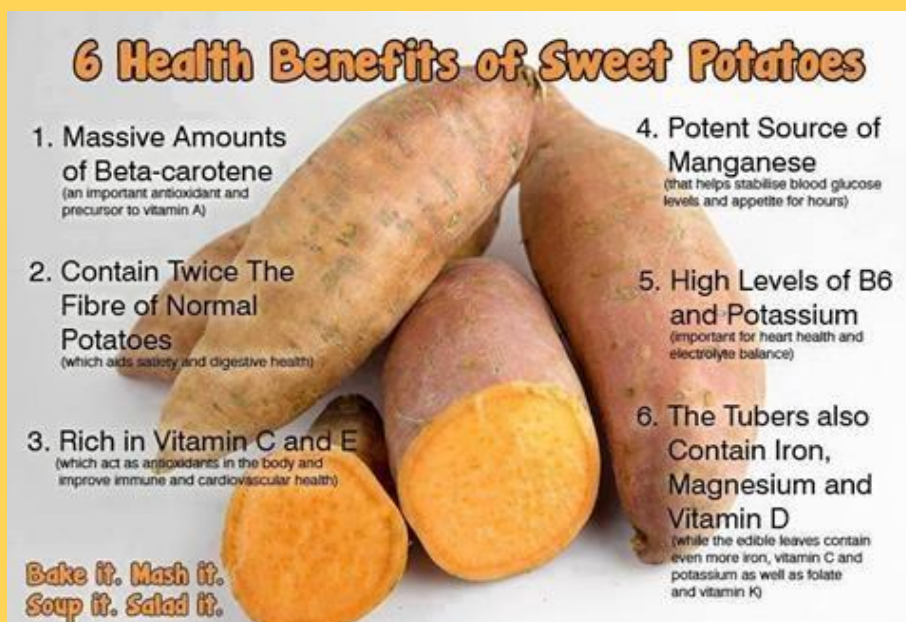
In warm climates, sweet potatoes make an excellent, dense ground cover for food forests.

One final note on sweet potatoes: though the roots are excellent, the greens are a good vegetable in their own right. You can eat them raw in salads, sauté them in stir-fries and cook them as greens.

Bonus: Nutrition Information

Nutritional Value in 1 Cup (200g) of Sweet Potato

769% Vitamin A
65% Vitamin C
29% Vitamin B6
14% Magnesium
27% Potassium
16% Copper
50% Manganese
11% Phosphorus
26% Dietary Fiber
8% Protein



Questions

If you have remaining questions about growing potatoes after reading this guide, contact your local Agricultural Extension Service. They will be able to provide you with precise information for your particular micro-climate and growing region.
