
Growing Sweet Potatoes in New Hampshire

Sweetpotatoes (*Ipomea batatas*) are members of the morning glory (*Convolvulaceae*) family. The sweetpotato is not related to the Irish potato, which belongs to the nightshade (*Solanaceae*) family. Unlike potatoes, which are tubers, sweetpotatoes are roots.



Growth Requirements

To produce a crop, the sweetpotato requires 90-150 days of frost-free weather. The plants are very sensitive to chilling. They grow best if the soil temperature is above 65F before planting. Sweetpotatoes prefer well-drained loam soils that are not too fertile. Over-fertilization causes vigorous leaf growth and long, skinny roots. If grown in heavy clay soils, roots can be small or misshapen, and will be hard to dig. Soil tests will identify any major nutrient deficiencies and recommend ways to correct them.

Starting Materials

Sweetpotatoes are started from ‘slips’, or plants, rather than from pieces of roots like Irish potatoes. Slips can be purchased from many seed companies or other plant suppliers. You can start your own slips, however, roots from a grocery store may not be varieties that grow well in this area, and may have been treated with sprouting inhibitors.

To produce your own slips: Place sweetpotato roots on their sides in trays of soil about a month before you want to transplant them outside. Cover the roots with 2 inches of moist sand and keep the soil in the trays between 75-80 degrees F. When the sprouts are 4-6 inches long, remove them with a twisting tug. The root will continue to produce more sprouts. Sprouts can be planted directly in well-prepared ground, or you can place them in a jar of water for a few days to produce a rooted slip and/or to delay planting.

If you purchase slips, you will have to specify the ship date. In Durham, soil temperatures under black plastic mulch are typically 65F by June 1. If your site is cooler or if you are not using warming mulches, you may want to delay this date.

Mulching & Rowcovers

Sweetpotatoes respond well to ground-warming black plastic mulch. The sheet of plastic is laid tight against the soil, and slips are planted into holes cut in the plastic. It is possible to produce good yields without plastic mulch, but the warming mulch extends the growing season by a few weeks, which can increase yields dramatically.

Some heat-loving crops respond well to rowcovers that can increase temperatures. We do not have enough information to know whether yields are significantly increased using various rowcover materials.

Pests

Deer love sweetpotato foliage, and will browse it down to the ground. While this won't kill the plants, it will reduce yields significantly. Since there is plenty of other food for deer in midsummer, a lightweight electric fence may successfully keep the deer at bay.

Voles also love sweetpotatoes. Some NH farmers have reported that voles have eaten their entire harvest. We did not experience any significant vole damage in Durham.

Scurf is a soilborne fungal disease. It discolors the skin of the root, so that the root is covered with rough black patches, but does not harm the root. Some varieties are more susceptible than others.

Wireworms can be an issue for sweetpotatoes grown in fields that were sod (or that were weedy with perennial grasses) in the previous year.

Harvesting and Storing

Sweetpotatoes should be dug as late as possible in the fall, but before a hard freeze. The vines can tolerate a light frost. It can be helpful to mow and remove the vines before digging, to provide easier access to the roots.

After digging, sweetpotatoes should be 'cured' by placing them in a warm (80-85F) place for 4-7 days. This heals any wounds on their skins, and increases their storage life. Sweetpotatoes should be stored in moderately warm (55-60F) and humid conditions. The roots are easily damaged by cooler temperatures.

Varieties

Sweetpotato varieties perform very differently, so it's important to test performance in your situation. Based on variety trial results in Durham, the varieties that stand the best chance of doing well in NH are listed below descriptions.

Beauregard – Reliably good producer. Flavor is average, but a typical sweetpotato, most like those available in supermarkets. Slips widely available. Early. Safe bet for commercial production.

Covington – This new variety was released in 2005 from the North Carolina Agricultural Research Service. In the first year we trialled it, it outyielded Beauregard and beat Vardaman in taste tests. Highly uniform, attractive roots. For TRIAL as a Beauregard replacement.

Georgia Jet – Very susceptible to cracking and storage losses. High yield potential and good flavor. Slips are widely available. Cracking may depend on moisture level in soil. Early. Better for home gardens than for commercial use.

Japanese – White flesh with pink/purple skin. Unique smooth texture, good flavor. Non-uniform

size and shape, and roots seemed to be easily damaged during harvest. May have niche market appeal.

O’Henry and White Yam – High yielding white-fleshed varieties. O’Henry skin more likely to have skin blemishes and turn green in sunlight, and White Yam was more starchy than sweet. White/cream colored flesh is unusual for many.

Carolina Ruby – Very attractive brilliant orange flesh, deep garnet-colored skin. Skin has unusual rough thick texture and roots frequently misshapen. Flavor is average but tasters like the color, moderate yields.

Vardaman – Outstanding flavor. Roots tend to be small and yields were not high.

Not Recommended – Centennial, Nancy Hall, Bush Porto Rico, Darby, Tainung 65, and Hernandez. Either didn’t produce sizeable roots or produced very few extremely large roots. Frazier White and Regal showed promise, but had inconsistent performance and limited slip availability.

For more information on growing sweetpotatoes or UNH trial results, please contact your local UNH Cooperative Extension Educator or UNH Cooperative Extension Vegetable Specialist Becky Grube at becky.grube@unh.edu or 603-862-3203.

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Revised 3/09*

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