

Sweet potato, kumara, uwi, ubi, or U.S. yam (*Ipomoea batatas*)

CONVOLVULACEAE, Morning Glory Family

Batatas, an Arawak name, now called sweet potatoes, were used in Central and South America, as well as the West Indies, during pre-Columbian times.

Sweet potatoes and yams are often viewed as two names for the same vegetable. Although called sweet potatoes, they are not really potatoes but are tropical tubers. Being part of the Morning Glory family they are considered storage roots (like carrots). True yams (*Dioscorea*) are from the yam family and are tubers (like potatoes). Sweet potatoes are smooth and thin skinned, while yams have rough and scaly skin. Sweet potatoes are generally the size of white potatoes with yams weighing as much as 150 pounds. In the United States sweet potatoes are grown mostly in the southern states, while yams are native to the Caribbean and Asia.

From May to late October, sweet potatoes do their growing. They need a temperate climate with full sunshine and regular, moderate rainfalls. They prefer 70-90 degrees F. in the daytime and 55-65 degree nights. Sandy loam, with good drainage suits the sweet potato.

There are two forms of sweet potatoes, vining and bush. Sweet potatoes are not grown from seeds, but rather from transplants or vine cuttings. These are called slips and are grown from mother roots (seed potatoes). Pre-sprouting or growing your own slips is referred to as "waking up the sweet potatoes". Seed potatoes or slips can be purchased from a certified seed or plant grower, by mail order catalog or over the Internet.

Growing Your Own Slips

From mid-March through the end of April, select a few firm, unblemished sweet potatoes from your local grocer. Clean the potatoes, always handling them carefully so as not to bruise them.

To hasten the growing process, place the sweet potatoes on top of the refrigerator/water heater until ready to plant. To plant, lay the sweet potatoes on their sides and cover with approximately two inches of soil. Water liberally and cover with clear sheets of plastic to hold in the moisture. If the weather is favorable, plants can be produced in four weeks.

Another method to grow slips is to stick toothpicks into the midsections and submerge them halfway in a jar of water place in a warm location. Still another way to grow slips would be to submerge the sweet potatoes halfway into a pot of moist vermiculite or potting soil. Add warm water periodically, never allowing the sweet potatoes to dry out, and be sure not to over water. Don't forget to warm them up on top of the fridge or water heater. In about two weeks the potatoes will be covered with leafy sprouts on the top and roots on the bottom.

Once the seed potatoes have sprouted and are of sufficient size cuttings (slips) may be taken. The cuttings are planted from April to June.

Growing Conditions

Sweet potatoes are aggressive rooting plants. They will produce the best crop when planted in light, loose, well drained but moisture retentive soil. The potato's root development is enhanced by adding lots of compost and loose material to the soil. Make the amendments from 3" to 6" deep.

The soil should be worked to a depth of 1' to accommodate large tubers. The roots should not face resistance when trying to expand within the soil. The pH of the soil should be between 5.5 and 6.5.

Planting can begin as soon as the ground temperature is at least 60 degrees F. The ground may be covered with black plastic to warm and dry out the soil prior to planting. To prevent rotting, make sure the soil is not waterlogged. The young plants should be frost protected with a temporary ventilated ground cover.

Planting

The sprouted seed potatoes or slips have to be divided into plantable slips. Twist each sprout off of the sweet potato. Lay the sprouts in a shallow bowl with the bottom half submerged in water and the leaves hanging over the rim of the bowl. Roots will emerge from the bottom of each plant. Keep the water fresh and discard any slip that is wilted or not producing roots.

Another method is to slice the seed potatoes into "seeds". Each seed should be approximately 1 1/2" square, and should have two or more buds. Or, if the potato is small plant the whole potato. Plant the slips one to two feet apart in a single or double row. Apply water to soak the soil.

Mulch and Fertilizer

Apply mulch under the leaves or move the leaves weekly to prevent the nodes from developing secondary roots. Allow space for the vines or tie them to a trellis.

Fertilizer high in nitrogen will result in leafy, green plants at the expense of root development. Root development is encouraged by adding lots of compost, straw and other amendments. A good fertilizer for sweet potatoes is one with low levels of nitrogen and high levels of phosphorus. At least monthly, fertilize with 5-10-10. Do not water during the last 3 or 4 weeks before harvest to protect the developing roots.

Harvest

It takes about 100-150 days before sweet potatoes are ready to harvest. Harvesting runs from late August to early November.

Lift potatoes from the soil with a shovel or a pitchfork. Avoid piercing the skin with your work tools. Wash, dry and store in a cool, dry place. Ideally, the roots should be allowed to dry on the ground for two to three hours, then cured in a warm room with high humidity for 10 to 14 days and then stored in a cool location.

Common Problems

To prevent diseases, obtain plant varieties with multiple resistance from "certified" growers and rotating the sweet potato location in the garden.

References

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