



NEWSPAPER ARTICLES

Potato Growing for the "Green" Home Gardener (September 21, 2024)

By Richard Warren, Tulare/Kings Counties Master Gardener

For most home gardeners, there are numerous vegetables to choose from. However, nothing quite beats the flavor of a fresh potato, so this vegetable was on my gardening agenda.

Selection

There are over a thousand potato varieties (cultivars) with colors ranging from white and gold to pink, red, blue, and purple. Planting all-purpose white (Irish) potatoes, *Solanum tuberosum*, sounded like a good option for me.

Spatial Requirements

For two people, a 25-foot to 50-foot row would be ideal, with plants bedded 12 inches apart. That was too much of my total garden space, so I opted to use grow bags instead. These bags are readily available from your major online retailers. They can be found in a rainbow of colors and range in size from 3 gallons up to 20 gallons, although it's important to remember that the bigger the bag, the heavier it will be and the harder it will be to move around. The most common size used is 5 gallons. The bags can be strategically placed on the patio and other sections of the yard to optimize space.



Seed Potatoes

Order the seed potatoes. Recommended varieties include White Rose, Kennebec, or Yukon gold. White potatoes grow from sections of the tubers. Refrain from using grocery stores or seeds from your own garden as a source. Opt for certified seed available at local nurseries and big box garden stores. Check and discard any seed tubers that appear diseased or have scab, dry rot, or frost damage.

Cutting Seed Potatoes

Locate an "eye" on the tuber and cut around it to create a piece that weighs about 1.5 to 2 oz. Store the freshly cut pieces at room temperature for up to 3 days before planting. The seedling needs to dry around the edges and form a callus, which decreases rotting.

Planting

Grow bag soil should be ready to plant, making sure there is sufficient nitrogen, potassium, and phosphorus fertilizer mixed in the medium. Pre-moisten the soil while noting that the minimum soil temperature requirement to ensure proper response is 45 degrees F. Plant the cut pieces 6 inches apart. If using grow bags, fill the bags about halfway up. Place the seedlings and cover initially with another 3-4 inches of soil. When the green growth sprouts, you will be adding more soil, so be sure to leave room for this process. I planted the seed cuttings in mid-February. Alternatively, mid-August would also be a good planting time for a winter harvest.

Growing

Remember that potatoes are shallow-rooted. 90% of the roots grow in the top 12-18" of soil. When the green leaves or shoots emerge from the soil, cover them with another 3 inches of soil. This will ensure the plant puts out more potatoes. When the plants are about 6 inches tall, they should be "dirted" up using a hoe to pull up another 3 to 4 inches of soil. After the dirting process, the seedling should be 6 inches under the surface. An alternative to the dirting process would be to simply cover the growth again with another 3-4 inches of soil. Don't worry about covering the green leaves and sprouts with soil; this encourages the potato tubers to grow deep and wide and allows new potatoes to form on top of maturing potatoes. Watch for pests during the season, including aphids, cutworms, psyllids, and whiteflies. Avoid over- or under-fertilization, especially when adding too much nitrogen fertilizer. Irrigate as needed. Manage soil moisture carefully to prevent cracking but avoid overwatering. Excess moisture can lead to anaerobic conditions in the soil, which promotes tuber rot and encourages potato diseases.

Green Potato

In a couple of my grow bags, the dirting process was too skinny. The seedlings did not get enough mounding soil on top. At harvest, I dug up green tubers. Maybe these potatoes were remembering their Irish roots—green! Most of you likely have heard of Luther Burbank (1849-1926), an American botanist and pioneer in agricultural science known for discovering many different plant cultivars. In fact, California's Arbor Day, March 7, is in honor of his birthday. My "discovery" of a green potato I thought could elevate me to an honorary member of the Burbank Potato Cultivar Society. There are, after all, a thousand varieties of potatoes. I just raised #1001. Well, I found out that a green potato is nothing more than a potato that has been exposed to the sun. The greening is the tuber's response to light, which results in the potato creating a poisonous alkaloid that makes the spud taste bitter. The safest recommendation

is to not consume the green potato. Note to self—make sure there are at least six or more inches of soil covering the seedling, and pull enough dirt from the sides or add soil to the grow bags to avoid the green potato phenomenon.



Harvest

Harvest early potatoes when large enough for preference and table use. Since the actual potatoes are below ground, a good indicator is that the green vines growing atop the soil will die. This typically means the tuber is mature enough, and the skin has "set." I harvested my 2024 crop (planted in mid-February) in early June.

So, follow these simple steps and enjoy fresh potatoes! As a reminder, even the best of modern commercial farming practices can kick out a green potato—as my recent bag of chips from my favorite deli with the green tinge proved. Luck of the Irish Potato, I would say. Happy Gardening!

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