



GROWING POTATOES

Potatoes are one of the most bountiful and rewarding crops that you, the home gardener, can grow. It is possible, under the right conditions, to pull 30 times as many potatoes out of your garden, as you plant into it. Plus, there are very few vegetables that can be as hearty, nutritious, and life sustaining as the potato. For many indigenous peoples of the earth, the potato is, and has been their main source of starch, protein and vitamins and minerals for more than six thousand years. So here is what to do, when you, the 21st century backyard gardener, wants to make the most of your potato growing experience.

The place to begin this project is with the preparation of your garden soil. While potatoes are adaptable to a wide range of conditions, from dry and rocky soils, to a rich, prepared garden bed, they prefer a soil that is deep, light and loose, well drained, but rich and moist. These are aggressively rooting plants, and with a little love, can produce incredible yields. The first step, is to deeply dig your planting area. Then, into this zone add a good dose of compost and organic matter along with our Landscape Mix and several heaping handfuls of worm castings.. Organic matter, or humus, is important in that it lightens and aerates heavy soils, increases the moisture holding capacity of sandy soils, and also contributes an organic fertility to the soil that potatoes need to be truly healthy. When adding humus or compost to your garden, it is preferable to use a material that has been made from vegetative matter, as opposed to a manure-based compost. Compost should be mixed into your intended growing bed at a rate of 2.5 - 5 pounds per 10 square feet, our Landscape Mix fertilizer should be added to the soil at 1-2 pounds per 10 square feet. A soil pH of 6 is best.

An often overlooked way to prepare your garden bed for a potato planting, is to sow a cover crop a season or two prior to putting in potatoes. Cover crops, or green manures, greatly improve the soil's tilth, organic matter, microbial activity, water holding capabilities, and significantly increase nutrients that are in the soil, and available for following crops. A mix of bell beans and buckwheat will provide an easy and cost effective way to prepare the ground for fall potatoes. When preparing your soil for a spring planting of potatoes, we recommend our Max Soil Booster blend.

Two weeks before planting your potatoes into the ground, it is advisable to do something called, "chitting" or "greening" to them. This is a process in which you pre-sprout your tubers, thus encouraging a strong burst of new growth and leading to an earlier harvest date. Spread

your seed potatoes out in a box or open-ended crate and place this container in a well-ventilated, warm (70 F) place, with medium light to bright shade. Arrange the potatoes only one layer deep, with the seed end up. If you closely observe your potatoes, you will see that one end was attached to its mother plant and that the other has a concentration of eyes from which the sprouts will emerge, this end is the seed end. Typically the potatoes that we sell are small enough to be planted whole and thus do not need to be cut into pieces prior to planting. However, if the seed potatoes weigh more than 4 ounces, it is advisable to cut them into smaller pieces, with each piece being at least 2 ounces. Each cut piece should have at least two strong eyes. When cutting your potatoes for planting, use a sharp knife, and then allow the cut to “heal over” for a day before planting into the ground. Some organic gardeners place their freshly cut potatoes into a paper bag with a couple of tablespoons of powdered sulfur and shake the bag until the cut portion has a light dusting of the powder on it. The sulfur acts as a fungicide and will help to reduce the risk of infection from fungus and bacteria.

Now that you have prepared both your soil, and your seed potatoes for planting, it is finally time to get down to putting them into the ground. Optimally, potatoes are planted into soil that is between 55 and 70 deg F. Be wary of cold, water logged soil, as the tubers can have a tendency to rot before they have a chance to sprout. Here in Southern California, our best windows for planting are mid-September through November, and then again from mid-February through April. For the home gardener, space can often be a limiting factor and as a result, the planting methods that are described below (hilling, caging and mulching), are often modified, combined and adapted, to fit each individual garden.

The method most commonly used is, **hilling**. To begin, the gardener digs narrow trenches that are 6-10 inches deep and 24 to 48 inches apart. Into these trenches, the seed potatoes are placed 10-14 inches apart. The farther apart you plant the individual potatoes, in terms of both distance between trenches and then spacing within the trenches, the larger the resulting size of the tubers and the greater the bounty will be. Once you have placed the seed potatoes into the trenches, rake a 3-4 inch layer of soil over the potatoes, be careful, and do not fill the trench completely. In about two weeks the potatoes will begin to poke their shoots through the surface of the soil. When the plants have grown 8 inches tall, gently rake more soil from the sides of the trenches up and around the growing stems, leaving the top 4 inches exposed. Then every week or two go out and rake another inch or two of soil and/or compost around the potatoes. This process of continually burying a little more of the plant has several benefits. First, you are always covering up and disturbing weeds as they germinate, thus reducing competition for space, nutrients and water. Also, hilling puts the root system deeper, where the soil is cooler, and the freshly raked-up soil creates a light fluffy medium for the growing tubers to develop in. All of the tubers that a potato plant will produce grow between the level of the original seed potato, and the surface of the soil. In other words, new potatoes will not grow below the seed potato and by adding more soil and burying the seed deeper and deeper, over time you will increase the available growing area for your potatoes and will also increase your yields. When raking new soil up onto your plants, be careful not to leave any of the growing potatoes exposed to light or they will turn green.

For gardeners who think that they don't have enough room, or who are waging an ongoing battle with gophers, we suggest the **caging method**. This consists of taking a section

of wire mesh, making it into a hoop and then standing this hoop up in your garden where you are going to grow your potato crop. You can also use a bottomless wooden box, or a barrel. If you have a gopher problem, dig down several inches under where your container will be, and bury some wire mesh in the ground. If the spaces in the mesh are smaller than 1/2 inch in diameter, you will effectively exclude any gophers. Plant your seed potatoes into the ground inside of your cage, spacing the individual seed potatoes 10 inches apart and burying them 2-4 inches deep into the soil. When the shoots have grown up to about 8 inches tall, you can go ahead and bury them half way with a layer of soil, compost or loose mulch. Then every 7-10 days bury the developing stems with another 1-2 inches of material. Continue to go out and cover your growing plants until you reach the top of your cage, you run out of usable compost, or until the plants stop growing taller. In the past, I have grown potatoes next to my compost pile and have had an easy-to-reach source of rich, fluffy organic matter that I could throw into my potato cage for the express purpose of burying my growing potato plants. Using this method, it is possible to grow a large amount of potatoes in a relatively small amount of space.

Another suggested method for growing potatoes is **mulching**. We recommend this method of growing potatoes if your soil is shallow, rocky or contains so much clay that the forming tubers can't push it aside as they try to swell up. Start by preparing your seed bed as deeply as possible and then mixing a good amount of compost, fertilizer and worm castings into the garden bed to add fertility to the soil. When planting the seed pieces into their bed, simply press them into the top few inches of soil, leaving them exposed if need be. Next, loosely shake mulch over the bed, burying the seed potatoes 6-10 inches deep. For best results, use a seed-free, grain straw as your mulch. You can also use leaves and well dried grass clippings. As the plants grow, continue to add more loose mulch as though you were hilling up the plants. Be sure to keep the tubers covered at all times. The result is excellent weed control, a continuous supply of moisture and reduced stress from heat. At harvest time, pull back the mulch. Your nest of potatoes should be clean, uniform and easy to gather.

While growing potatoes, we advise that you keep your garden bed on the dry side, moist but not wet. If growing during the winter months, it is conceivable that you will never have to water your potatoes during their growing cycle. This will lead to a tastier, more nutrient rich tuber that will have a thick skin, and be better suited for storing. If we are experiencing a dry year and you have to water your potato bed, do so every other week or when the above-ground portion of the plants begin to look tired, and wilt. Because of the nature of the caging method and its increased amount of surface area, it may become necessary to sprinkle water into the growing cylinder even during moderately wet seasons. If you are ambitious enough, we recommend foliarly feeding your growing vines by spraying a mixture of fish emulsion and liquid kelp onto the leaves every 2-3 weeks. Start this regimen when the seed sprouts first emerge, and continue applying until flowering begins.

At the end of their growing season, the potato vines will begin to turn brown and will start to die back. At this point you should stop watering your plants and allow their section of the garden bed to dry out. Let the vines die back completely into the ground, and then wait for two more weeks before you dig out your new potato crop. Waiting will make for an easier harvest, and give the tubers a chance to toughen their skins up, which will in turn increase their storage life. If you have used the hilling method, take a digging fork and gently loosen the soil

from outside the hills and expose the tubers. By getting down on your hands and knees and actually digging through the dirt you will be able to find more of the smaller, less developed tubers and probably be able to gather a few meals worth of tiny quarter-sized potatoes. To harvest when using the caging method, simply uncoil and remove the wire mesh, or just lift up and remove the wooden crate or barrel and allow the contents to spill over. Then just dig through the resulting pile with your hands and collect all of the potatoes as you find them. Harvesting your potatoes after having grown them with the mulching method is as simple as carefully removing the mulch layer of straw, leaves or clippings, and exposing the tubers.

After the tubers have been harvested it is best to spread them out in a shaded area and allow them to dry out for a day or so. Then sort through and grade all of the potatoes. Those that are solid and blemish free can be put into some sort of breathable bag, a slotted crate or a basket, and kept in a cool location with enough humidity so that the potatoes will not dry out. An underground root cellar would be ideal. Those potatoes that may have been soft, bruised, or had their skin broken during harvesting should be eaten as soon as possible, before they have a chance to rot. Light and/or warmth will promote sprouting, as well as turn the potatoes green, and also lead to a decreased storage time.

**Island Seed and Feed carries organic seed, fertilizers and supplies
for all your gardening needs!
29 S. Fairview Ave., Goleta, CA
~ 805-967-5262 ~**