



Potatoes

Potatoes are grown from what are called seed potatoes. These regular looking potatoes are different from store bought potatoes in one very important way. Montana law requires that all seed potatoes sold in the state be certified as virus free. Supermarket potatoes can carry viruses without showing any signs so it is best to avoid them for planting. You could introduce a virus into your garden soil that could be very harmful and nearly impossible to get rid of. These viruses, while harmful and possibly deadly to plants, do not pose any threat to humans. Supermarket potatoes are also often chemically treated to inhibit sprouting which you do not want on a potato you are trying to sprout and grow!

Different varieties of seed potatoes are offered. We can grow just about any type of potato here. As any cook knows, different varieties of potatoes work best for different dishes.

Baking	Boiling	Frying	Keeping
Russet Burbank	Dark Red Norland Yukon Gold	Russet Burbank Dark Red Norland	Russet Burbank Dark Red Norland Yukon Gold
Purple Viking	All Blue	Purple Viking	

Dark Red Norland: White flesh with burgundy skins. One of the best for new red potatoes. Heavy yields, good storage.

Russet Burbank: The famous Idaho potato! Excellent baker with white, fluffy flesh. Good keeper.

Yukon Gold: Yellow fleshed, excellent for mashed potatoes or potato salad. A little too moist for frying. The plants need to be spaced close together to increase yields. Good keeper.

All Blue: Tubers are smooth, oblong, medium-size, with deep-blue to almost purple skin and brilliant purple, moist, firm flesh with slightly grainy texture. Excellent steamed, mashed, microwaved, roasted and chipped.

Purple Viking: Deep purple skin dappled with pink splashes and stripes. Bright white flesh that produces very large potatoes. Mid season maturity.

Site selection: Potatoes need good sun to prevent the ground from being too soggy. The soil should be very light and loose so the roots can easily go out into it and form tubers. It should retain moisture but not be soggy. Potatoes are not planted deeply but you do hoe up soil as they grow to bury them deeper and deeper. You need to be sure you can do this with the soil at the site you have chosen. Good balanced soil is best. If potatoes are grown with too much nitrogen (the first number) they will be all leaf and vine with little tuber development. They are sensitive to soil pH and prefer acidic soil in the 5.2 to 6.8 range.

Seed Selection: Select seed potatoes that are firm and show no sign of rot. Seed potatoes are sold by the pound; generally 1 pound of seed will plant an 8-10' row if the potatoes are spaced 1' apart. The yield depends on the variety but most gardeners are happy with 2-3 rows. You'll still be buying supermarket potatoes but you'll have a reasonable crop of your own too.

Preparing Seed to Plant: Seed potatoes the size of an egg or slightly more can be planted whole. Larger seed potatoes should be cut up into two or more pieces. Each piece must have two or more eyes. The eyes are the little indentations that sprout. Both whole and cut up seed potatoes should be dusted with sulfur before planting. Put a teaspoon of powdered sulfur (available at Plant Land) in a paper bag, put the potatoes and pieces in the bag, hold the top shut and shake the bag to coat. Do not let cut pieces dry out before planting.

Planting Seed Potatoes: You can plant potatoes before all danger of frost is past but not so soon that they may rot in cool, wet ground. Additionally, the vines that sprout are not frost hardy so you should plant so that they will not come up while there is still danger of hard frost.

If the ground is warmed to at least 55°F it is typically safe.

Dig a trench 6-8" deep for the length of your row. Leave about 2' between rows. Plant the seed potatoes 10-14" apart. Cover them with 3-4" of soil, do not fill in your trench. Water to thoroughly wet the soil but not soggy.

Growing Potatoes: Once the plants have emerged and are about 8" high, you must start the process of 'hilling' to grow your potatoes. Use a hoe to gently mound (hill) up soil around the vines with soil scraped from along both sides of the row. Leave about 4" or half the vine exposed. Hilling puts the root system deeper where the soil is cooler while the just scraped up soil creates a light fluffy medium for the tubers to develop into. All tubers will form between the seed piece and the surface of the soil. Repeat the process in 2-3 weeks and again 2-3 weeks after that. Don't hill soil up too deeply, 1-2 inches is usually enough. Potatoes that are exposed to light become green and they are not considered edible because this green indicates that mild toxins have formed under the skin.

Potatoes are often described as needing little or no irrigation. If your soil is light and rich with good texture, you can irrigate lightly, about once a week. Poor soil that is hard will need more water.

Fertilize potatoes with liquid fertilizers up until the vines start to produce flowers. After that point, the tubers are forming and fertilizers will be of little or no good.

There are a few pests that specifically bother potatoes. The chief one is Colorado Potato Beetle. In a small garden, handpicking beetles off is the best method of control. You can use *Bacillus thuringiensis* (Bt.) but since it is only effective on larvae it may not work if you notice the infestation at the beetle stage. For adult beetle infestations you can use Rotenone or Pyrethrum. Be careful not to use other kinds of chemicals indiscriminately on or near your potatoes. They will absorb the chemicals and you'll be eating chemicals with your spuds!

Harvesting & Storage: Normally 7-8 weeks after planting, the vines begin to blossom. This signals that new potatoes may be ready for a light harvest. New potatoes are considered an early summer treat. Harvest lightly, rob a few plants of a few potatoes or pull up an entire plant at the end of a row.

The main harvest occurs after hard frosts have killed the vines. After the tops are dead, rest the potatoes in the ground, undisturbed for two weeks to cure the skins.

Plan to harvest in the cool of the day. Potatoes will store better if they are kept cool. A digging fork works best for harvesting potatoes. Put the fork on the outside of the hill and dig. Try to avoid stabbing potatoes. If the soil is wet, let the potatoes air dry before storing them.

Field grade your potatoes as you harvest. Any damaged, blemished, scarred or misshapen tubers should either be discarded or eaten as soon as possible. Only store whole, undamaged potatoes. They keep best in the dark at 36° - 40°F with enough humidity (80-90%) to prevent drying out. Potatoes bruise easily in cold storage so handle them gently. As you retrieve potatoes for use, be sure to check over the rest of the crop and dispose of any that show signs of rot. Freezing ruins potatoes so be sure to monitor temperatures as winter progresses. Keep potatoes separate from apples. Apples give off ethylene gas as they ripen and it will cause the potatoes to sprout.

Don't try to save your own seed potatoes from year to year. It is really advisable to purchase new each year to avoid virus problems. Your potato patch needs to be moved every few years. Don't move it where tomatoes or eggplants have been in the previous 3 years. Potatoes, tomatoes and eggplant are all members of the nightshade family and don't like to share soil.

There are a number of alternate methods of growing potatoes. Some old timers use stacked tires, a method that has been 'reborn' by gardeners using perforated garbage cans or specially constructed tubes. The essence of any of these methods is that the additional soil will be 'hilled' by the surrounding element as it is added. It works fine, especially for gardeners with limited space.

Plant Land staff can answer any other questions you may have regarding planting potatoes.