

# POTATOES

## AT A GLANCE

Latin Name: *Solanum tuberosum*      Direct sow or transplant: Direct sow

Sun: Full      Life Cycle: Annual      Height: 3 feet

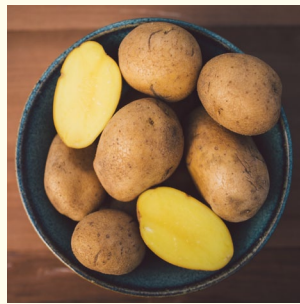
Ease of care: Moderate      Container Friendly: Yes, 10 gallons or more

## TYPES OF POTATO

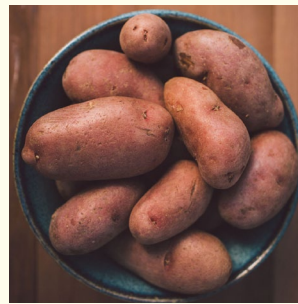
*Humans have been co-adapting with potatoes over 10,000 years in what we now call South America. The principal energy source of the Incan Empire, histories of colonization have spread potatoes all over the world. Potato diversity is massive, beautiful, delicious and resilient!*



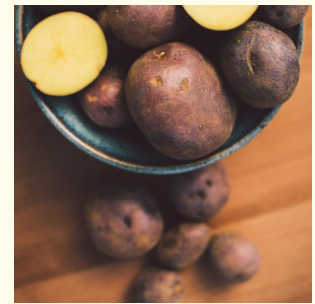
**Starchy:** Low in moisture, fluffy and absorbent, the abundant starches in 'starchy' potatoes are ideal for baking, frying and mashing. Starchy potato flesh quickly crumbles after cooking, so they do not hold their shape after cooking compared to waxy potatoes. Russets are quintessential starchy potatoes.



**All Purpose:** All-purpose potatoes fall are the best of both worlds. Less starchy than a truly high-starch potato, all-purpose potatoes hold their shape remarkably well. 'Mash 'em, fry 'em or stick 'em in a stew,' as Samwise Gamgee so beautifully says! German Butterball are quintessential all-purpose potatoes.



**Waxy:** Low in starch, high in sugar and more moist than starchy potatoes, 'waxy' potatoes tend to hold their shape after cooking. Ideal for boiling, roasting, gratins and potato salad, waxy potatoes often have thinner skin, smoother texture and are generally more small and round, as well. Fingerlings are quintessential waxy potatoes.



**Early, Mid & Late Season Potatoes:** Different varieties of potato mature at different times. 'Early season' potatoes are able to be harvested in 75 to 90 days while mid-season potatoes mature in about 95 to 110 days. Late season potatoes are harvested about 120 to 135 days after planting.





## SOW

**Direct sow/transplant:** Direct sow

**'Green-sprouting'** is an optional (and brilliant) technique, encouraging your potatoes to grow more quickly and resist rotting in cool spring soils.

A few weeks prior to planting, lay your seed potatoes in a single layer in a warm place, ideally between 65 and 70°F. This place can be dark initially but the moment your potato sprouts 'eyes,' offer them as much light as possible to keep these sprouts short, stocky and deep green. Your green-sprouted potatoes may be planted whole or cut as desired. By green sprouting, you reduce the chance of your seed potatoes rotting as well as weeds emerging before your potatoes in addition to hastening your potato harvest up to two weeks earlier.

**Cutting:** Each sprouting 'eye' on a potato will grow into foliage or roots and it's best to have at least two eyes on each potato piece you plant. Small 1 to 2-ounce potatoes (the size of a medium egg) may be planted whole but if you see four or more eyes or more on a seed potato that is the size of an egg or larger, cutting it into pieces with at least two eyes will optimize your harvest. Allow your cut potatoes to 'heal' over for about two days, until the cut is no longer moist.

**When:** Potatoes may be planted 2 to 3 weeks before final frost at the earliest, since they tolerate cool 50°F soils and survive light frosts. Emerging more quickly in warmer soil, potatoes can also be planted closer to frost and early season varieties can even be sown 4 weeks after final frost and be plentiful, even in short seasons. Expect 2 to 3 weeks for your potatoes to sprout above the soil.

**Seed depth:** Dig a 2 to 4-inch deep trench to plant your potatoes along.

A deceptively straight-forward equation, there are many variables to keep in mind. Sown less deep, the soil is

warmer and your potato will sprout faster, outcompeting weeds faster though you're committing to hilling more to harvest the same abundance. Sown deeper, the soil is colder and your potatoes will take longer to sprout, making weeding potentially more difficult, but you won't have to hill as much to harvest your abundance. If hilling will be easy for you, go ahead and plant less deep. If hilling will be a challenge, do yourself a favor and sow deep.

**Spacing in row:** 12 inches

**Spacing between rows:** 30 to 36 inches

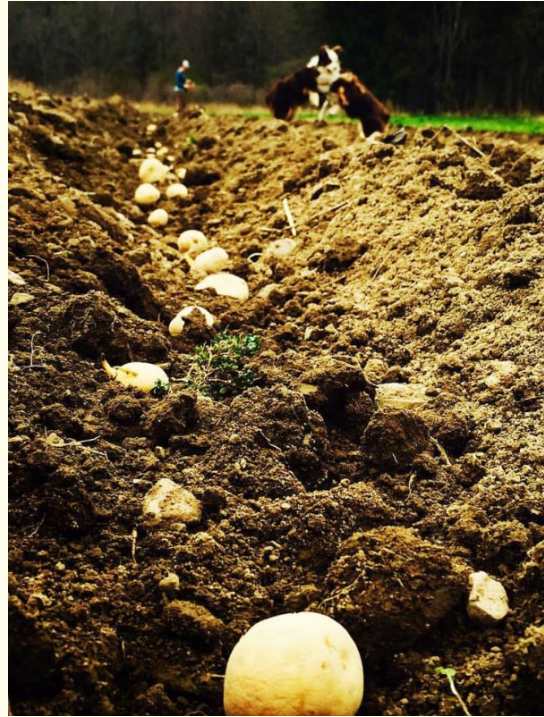
**Days to germ:** Generally 2 to 3 weeks, with less time in warmer soil and shallow planting.

**Common Mistakes:** **Planted too early in cold, wet soil,** potatoes will rot rather than sprout. Once the soil is 50°F or higher, potatoes grow without hesitation. Though soil thermometers exist, you can also stick a thermometer from your medicine cabinet in the soil! Just be sure that it's reading from the soil depth you'll be planting your potatoes. **Planted too deep,** your potatoes are exposed to more cold, wet soil, increasing the time it will take to emerge through more soil. **If cut potatoes aren't healed over before planting,** they're extra susceptible to rot.

**Succession Sowing:** Since potatoes take so long to grow, they are not succession sown. You can

nevertheless harvest potatoes consistently all season by planting early & mid as well as late-season varieties. Planting some of each will surround you with potato abundance the seasons ahead! Early season potatoes, harvested about 75 to 90 days after planting, can be sown early or as late as late June here in Zone 5. Mid and late season varieties are best planted within a few weeks of early planting in short seasons.

**Companion planting:** Since potatoes are hilled, not many other plants survive in their immediate company. That being said, planting lots of alliums like onions, chives and scallions nearby will help deter Colorado Potato Beetle.



*Potatoes are planted 12 inches apart in a 2 to 4-inch deep trench. How to decide how deep? There's no one answer. In short, if hilling will be easy for you, go ahead and plant less deep. If hilling will be a challenge, do yourself a favor and sow deep.*



## CULTIVATE

**Soil:** Loose, nutrient-dense and well drained soil grows the most abundant and delicious potatoes. A soil pH of 6 to 6.5 is ideal though potatoes tolerate slightly more acidic soil (down to 5.0) more than most.

**Hilling:** Potatoes grow above rather than below the mother tuber, so hilling is one of the easiest ways to amplify your abundance as well as prevent any tubers from 'greening' with sun exposure. Remarkably, potato stems become roots when covered, unlike most plants, whose stems would quickly rot.



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We love to hill our potatoes with composted deciduous leaves.*

Once your potatoes are 8 inches tall, bury your plants in 4 inches of mounded soil from the paths between your potatoes. Alternatively, compost, straw, grass clippings and deciduous leaves are also excellent hilling materials. Adding nutrients as well additional growing medium is the dream! Every few weeks, when your potatoes grow another 8 inches, hill again and again until the plants have reached full height, often three times here in Zone 5. You may have a foot of hilled materials around your potatoes! Just imagine how many additional potatoes you'll harvest.

**Weeding:** Hilling effectively 'weeds' your potatoes, so be prepared to hill early and often!



**Feeding:** Though potatoes are generally abundant without particular attention, often growing 10 or more tubers from a single tuber, there is a direct relationship between the quantity and quality of nutrients your potatoes receive and the quantity and quality of potatoes you harvest. We incorporate compost as well as well-balanced, organic, slow-release fertility prior to planting. Second best, we incorporate these as we plant. Once potatoes are one foot tall, we foliar feed them with fish and kelp emulsion or compost tea every two weeks. The most potent time to feed and water your potatoes is when they begin to flower, a sign they're initiating tuber production. Hilling is an immense opportunity to feed your potatoes, so don't skimp! Resist feeding your potatoes with nitrogen-rich fertility, inspiring abundant foliage rather than tuber production.

**Containers:** Potatoes thrive in containers, the larger the better! Ten gallon containers or larger is the dream. Only fill your container about half to two-thirds full of the most nutrient-dense soil, compost and amendments you can find, giving you plenty of room to hill your potatoes throughout the summer. We love letting children push over our container-grown potatoes when we're ready to harvest, soil and potatoes spilling out, like an Easter egg hunt to harvest!





Colorado Potato Beetles (*Leptinotarsa decemlineata*) can dramatically reduce foliage and thus 'decimate' your potato harvest, as their Latin name implies. Scout for & squish them at every life stage! Hunt for their bright fluorescent orange eggs on the underside of leaves, their pudgy umber larvae and their adult, hard-shelled beetles who manage to fall off foliage at just the right moment, brilliantly evading your fingertips. Be forewarned: it's both gruesome and essential.

**Pests:** A spectacularly handsome species in the Scarab family, Colorado Potato Beetles (*Leptinotarsa decemlineata*) can dramatically reduce foliage and thus your potato harvest. Like so many organic approaches, watching for them early and hand-squishing all that you see will go far in preventing their population from skyrocketing. Squish them at every life stage: their bright fluorescent orange eggs on the underside of leaves, their pudgy umber larvae and their adult, hard-shelled beetles who manage to fall off foliage at just the right moment, brilliantly evading your fingertips. Also, Colorado Potato Beetles prefer to munch on foliage that is less 'hairy,' so you can grow varieties that have more hairs to deter them.



Other approaches to minimizing their populations include crop rotation and reducing other solanaceous weeds surrounding your gardens as well as growing under floating row cover to simply exclude them. Also, late plantings of early season varieties brilliantly allows the wave of Colorado Potato Beetles moving north to pass by your garden without a second glance. Here in Zone 5, potatoes planted about one month after final frost in late June will effectively miss the ravenous migration of the Colorado Potato Beetle.

**Disease:** Increasingly an issue here in the Northeast, potatoes are susceptible to scab and late blight. Though bacterial scab affects cooking & seed grade status in potatoes, your harvest or storage life of your potatoes will not be affected. Late blight is a fungal disease, the same one that affects tomatoes. Windborne, it's critical that once you see leaves turning dark that you remove fully and throw away (not compost!) affected plants since their spores spread quickly. Any potatoes you harvest from a late blight-affected plant are still edible (if the infection is young enough and haven't visibly affected your tubers) though they will not store.

In organic gardens, prevention is the best cure so here are the easiest ways to prevent disease in all plants: Nutrient-dense soil grows healthy plants with vigorous immune systems; overcrowded plants are more susceptible to disease; water soil rather than leaves in the morning rather than evening to reduce leaf humidity. Crop rotation always helps! Potatoes are related to tomatoes, peppers, eggplant, tomatillos and ground cherry. Finally, disease-resistant varieties make a huge difference, though even disease-resistant varieties may not thrive with poor cultural practices.

## 🌿 HARVEST 🌿

Once potatoes are blossoming, new potatoes are forming! Delectable 'new' potatoes in summer have a lusciously thin skin and velvety smoothness, harvested within a week or three of your first blossoms, often 7 or 8 weeks after planting. Harvest with a digging fork from one foot away from where you anticipate tubers to ensure you don't puncture any! You can harvest whole plants or, if you're digging par-

tial plants, gently lift only the tubers from the side, leaving most of the plant to continue growing. For fall storage potatoes, harvest no earlier than 2 weeks after your potato's foliage has died back, allowing your potato skins to thicken.

**Store** unwashed potatoes in a dark, moist and cool environment with plenty of airflow, ideally between 38 and 45°F.



## SEED SAVING



Once potatoes are blossoming, new potatoes are forming! This is one of the most important times to surround your potatoes with ample nutrients as well as water. Hilling with compost as well as low-nitrogen organic fertilizer is an ideal way to feed your potatoes.

**Life cycle:** Annual, must be dug and brought in every fall.

**Self or cross-pollinated:** Potato flowers are self-pollinated, though people most often propagate potatoes by clonal tuber rather than by seed. Potato seeds will grow very few tubers (sometimes just one!) which can then be clonally increased. If you'd love to create a new potato variety, sow seeds rather than seed potatoes!

**Qualities to select for:** Delicious texture and flavor, always! We also select potatoes for tuber quantity, tuber size, tuber color, tuber shape, disease and insect resistance.

**Wet or dry seeded:** Wet! You'll find true potato seeds in bright green fruits the size of a blueberry.

**When to harvest:** If you're saving your potatoes to replant, harvest them no earlier than 2 weeks after foliage has died back so their skin will be thick enough to store well through the winter. If you're harvesting true seed, harvest the green fruit when they fall off your plant or before frost, whichever comes first. Next, gently separate the seed from their fruits with a potato masher in a bowl of water. Rinse the seed well before drying.

**Seed storage & viability:** Seed potatoes will only last through the winter to be replanted the following spring; true potato seed will last 6 years and often longer.

## BEST OF THE BLOG

### Fruition's Guide to Growing Potatoes

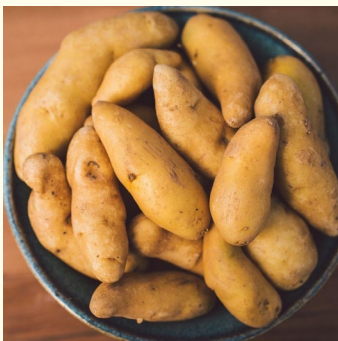
Enjoy how-to video tutorials in **Fruition's Seed Starting Academy** as well as **Flourish Garden Club**.

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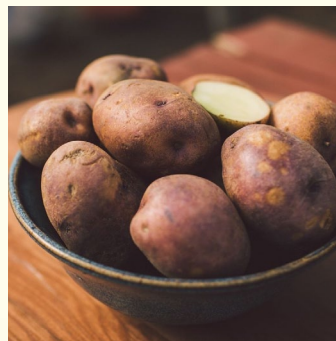
## OUR VARIETIES:



### ORGANIC BANANA FINGERLING POTATO

Fingerlings are beloved for thin skins and creamy flesh with rich, nutty flavor. Banana Fingerlings are often 3 to 4 inches long; their firm flesh holds its shape marvelously whether roasted or

boiled. We adore fingerlings in potato salad! More drought tolerant than many potatoes, Organic Banana Fingerling Potatoes are as prolific as they are delicious.

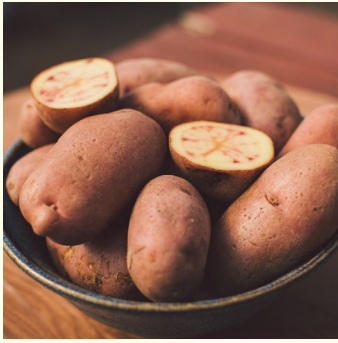


### ORGANIC CARIBE POTATO

One of our favorite early season potatoes with thin, marbled skin and vivid white flesh. We adore the bright plum blossoms of Organic Caribe Potato, as well! Scrumptious new potatoes and perfect for

mashing. Caribe is also resistant to scab.

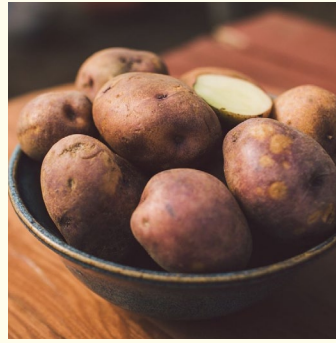




### ORGANIC FRENCH FINGERLING POTATO

If we were going to grow one potato, this is it. Delicious, abundant, versatile and absolutely beautiful, we love the smooth red skin of organic French Fingerling Potato paired with yellow

low flesh with rose starbursts. With high resistance to scab, we savor French Fingerlings all winter and into the spring.



### ORGANIC PURPLE VIKING POTATO

Deliciously versatile and early to harvest, we love the vibrancy of Organic Purple Viking Potato paired with compact growth perfect for small gardens and containers. These potatoes are large,

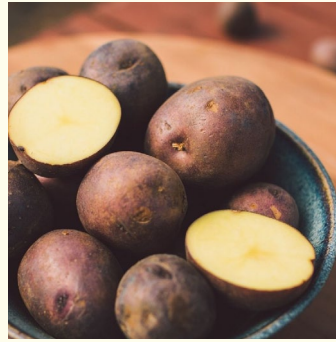
so plant more closely if you're keen to harvest an abundance of smaller potatoes. We also appreciate purple Viking for its resistance to scab.



### ORGANIC GERMAN BUTTERBALL POTATO

So creamy, buttery and luscious no matter how cooked, we love Organic German Butterball Potato. Resistance to scab as well as late blight makes her an extraordinarily abundant late-season potato, as well.

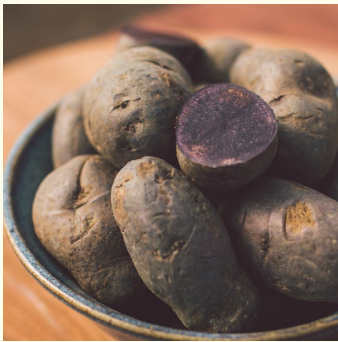
Resistant to scab as well as late blight makes her an extraordinarily abundant late-season potato, as well.



### ORGANIC HUCKLEBERRY GOLD POTATO

With purple skin and bright golden flesh, Organic Huckleberry Gold Potato is beloved as a potato with a low glycemic index, so you can have your potato and eat it, too! We particularly

love them roasted with rosemary and salt. High in antioxidants, Huckleberry Gold is also exceptional for her resistance to common scab and verticillium wilt.



### ORGANIC PURPLE MAJESTY POTATO

With deep purple skin and luminous purple flesh, Organic Purple Majesty Potato is a joy to grow, harvest, prepare and feast upon. We love them roasted, mashed, boiled and as chips packed with anthocyanin antioxidants.



### ORGANIC RUSSET NORKOTAH POTATO

The 'iconic' potato, Organic Russet Norkotah potatoes are mild and dry, the go-to variety for 'french fries' and fabulous for baking. Their thick skin becomes crisp while the inside becomes fluffy, just waiting to soak up your garlic butter.

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**Our favorite recipes:** *Potato wedges roasted with rosemary never gets old! Try tucking waxy potatoes at the bottom of a frittata for a fabulous crust. New potatoes are brilliant on the grill all summer and we love potato leek sorrel soup once the sorrel emerges in spring.*

**Preserving the harvest:** *Potatoes brilliantly store themselves! Store unwashed potatoes in a dark, moist and cool environment with plenty of airflow, ideally between 38 and 45°F.*

