

Food Sovereignty Garden Program

SEED STARTING GUIDE

The number one ingredient is patience. The patience to wait until seeds can be started so that new plants can be set in the garden for the season at a stage of rapid growth, where the roots are just touching the sides of their container. Just like we want to encourage a child's expanding mind, we want to encourage a plant's expanding roots and give them plenty of room to reach their full potential. A plant with restricted roots balls up, gets convoluted, is in its own way, it takes time to unwind and start growing again. Once we plant a seed, we need the patience to wait until it transforms and emerges in a new stage of life.

Let's start with the seeds. Whether you buy seeds or use seeds given to you, once home keep them in a cool dry place away from light. Leaving them near heat (sun, stove, heater) can shorten their lifespan. Once you are done planting seeds, you can store them in a Ziplock bag in the freezer, they can last for years in the cold.

Containers are an important consideration. You can use just about anything to grow seeds into plants as long as it holds soil and has some drainage in the bottom. Punch holes in egg cartons, yogurt containers, solo or dixie cups, work with food containers as they are less likely to have harmful chemicals that could affect the health of the plant and ultimately you. Seed starting kits with multi-celled flats are a handy item, but not necessary if you get creative. Whatever you use to grow seeds in, be sure to put your containers on a tray to catch any extra water. The smaller the container you use, the sooner you need to transplant into a larger container to keep the roots from becoming restricted.

Growing medium, also called potting soil is what the seeds are put into and moistened to encourage seed germination. You can use soil from your yard; however, you may have more success with a store bought potting soil, they tend to be more porous and have more air space to avoid compaction that can happen with soils

from the yard. Natural or organic potting mixes are the best options, they contain more natural forms of plant nutrients that are better for the plants and eventually our own bodies. To fill your containers, make sure your soil is moist enough to form a loose ball that falls apart fairly easy. You may want to put some in a pail and add a little water until it is just right. When filling containers leave room at the top so that when you water, the water will stay in the container instead of flowing over the sides.

Planting depth is determined by the size of the seed. Little round broccoli seeds can be kept just covered with soil as long as it stays moist enough. A large squash seed needs to be planted about an inch deep. The key is to plant deep enough to get good seed to soil contact, a seed planted too deep uses a lot of energy seeking the light above. When filling your growing container gently tap down the potting soil to get it to settle. Avoid pressing the soil too hard, you want to leave some air in soil. Use a finger, pencil, or stick to poke a hole at a depth that compliments the size seed you are planting, cover with some loose soil and firm with your fingers. When you firm with your fingers, picture tucking a baby bird into a nest, you want it safe and secure, at the same time it needs just enough room to expand its lungs to breath. This is where seeding is an art, gauging the depth and firmness that feel most beneficial for each seed.

Once you have planted seeds into containers, water well so that the soil gently settles around the seed and moist, stop just before water runs out of the bottom of the containers. Keep them in a warm place, 65-78 degrees is ideal, they won't need light until they sprout, so by the wood stove or a heat vent is good, just watch that they remain moist. Water them enough to keep the soil like a moist chocolate cake, too much water can cause a seed to be overcome by fungus and dampen off before they have a chance to become a seedling. Check them once or twice a day, it is a wonderful thing for children to keep watch on. As soon as you see



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seedlings emerging, give them a light source, a grow light with full spectrum is best if you don't have a green house, a good south window will do otherwise. Give them 12 hours of light a day if you can. If you use a window, it is best to keep them in direct sunlight as much as possible, moving to a different window to follow the light through the day can help too. The goal is to see the plants stay short and stout. Tall leggy plants have a tough time keeping stable and upright, even after planting them outdoors. Keeping them in good light will help to keep them strong.

Watering plants indoors and out is a real art. Young seedling need a steady amount of moisture, the soil should appear like a spongy block of moist chocolate cake, a mixture of particles, air and water. Watch the plants throughout the day, add a little water gently here and there as needed. They are babies and need care often. If the soil dries hard on top, use a spray bottle to gently dampen the top layer before watering, this will help the water get down into the container without flooding the top all at once. Be watchful and water gently a little at a time until you get the feel for keeping that moist cake like consistency. It's ok to poke a finger or check soil moisture to see if you have watered enough, it's an important part of learning to have a feel for your little plants' water needs. A tray under the containers is helpful to catch extra water. If the tray becomes full of water, it could possibly drown the roots at the bottom of the container, or all the roots depending on the container and tray depths. It's ok to leave some water in the tray, and it is ok to drain off extra water too.

Fertilizing some seedlings can be helpful. You want your plants to be a nice vibrant green color. If you notice the leaves starting to yellow even just a little, it is time to feed them. A simple manure tea can brighten them back up. Be careful to use aged manure from animals that have eaten herbicide free hay, herbicides can travel through a horse and affect the plants that contact its manure. Here is a quick guide to making tea for plants, <https://www.healthy-vegetable-gardening.com/manure-tea.html>. Other natural fertilizers include liquid fish, pelleted chicken manure (already aged and composted), kelp meal, organic alfalfa and soybean meals, even urine

(dilute one part fresh urine to 30-50 parts water for use on potted plants). Read labels or have someone look up directions for use online if you are technology free. Diluted molasses can also perk up a plant and feed the soil life as well. If the plants start to get a purple color on the leaves and/or stems, they may need fertilizer, and they may also be too cold. Warmer conditions could be all they need to green up again.

As the plants grow, keep them in the best light possible and move them around as needed to keep growth even. Ideally the plant is ready to leave its container when its roots begin to touch the sides. Monitor their progress and if they are ready to plant, and the garden or weather is not ready for them, you can plant them into a larger container. A plant in a small cell or Jiffypot can easily fit into a Waxed paper cup or plastic up with holes in the bottom for drainage. Half fill the cup, add a pinch of fertilizer, then the plant. Next use some loose soil to fill in around the root ball, be careful of the roots, then water the new container well.

Before planting in the garden, it is good to transition the young plants so that they get used to outdoor living conditions. Start by taking the plants outdoors on nice days to get them used to unfiltered sunlight. If the day is very bright or hot, find a place with some light shade, if the weather is windy, give them a place protected from the wind. As days go by and nights warm, you can begin to leave them outside more until they are used to being out all day and night. This process is called "hardening off." When the garden, weather, and plants are ready, it's time to plant them into their new home.

The biggest things to remember are to keep the moisture and light consistent as possible, and to plant the seeds so that they are just touching the sides of their contain when it's time to plant them in the garden. We will include a seed starting guide by vegetable type with a range of dates when you can start each type of seed, getting the timing down is a little knowledge, a little feel of the season (warm, cold, wet, or dry spring), and a lot of blessings. We hope you all have a blessed growing season.



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