



Garden Tips: Seed Starting Basic Info

Are you ready to take your vegetable garden to the next level? With a little space, a few inexpensive materials, potting soil, seeds, and a little time and energy, you can start your own seedlings for your garden! Assigning a small area of your kitchen, basement, or heated garage to seed starting can bring a little nature inside during a fairly gloomy time of year. Starting your own seedlings takes some effort, but the rewards are evident:

- Choose from thousands of varieties of seeds – many that are not commercially available as seedlings
- Grow extras for family and friends
- Witness the miracle of life, as seeds sprout and grow

In order to grow seeds successfully, you'll need to take a few things into account:

Timing

We talk a lot about timing with vegetable gardening. Because of Pittsburgh's significant seasonal changes, there are definitely right and wrong times to plant certain crops. We'll share a detailed seeding chart with you next week. For now, we'll just say that spring crops can be started as early as February. They can be planted outside as early as mid-late March, depending on the weather. Summer crops should be started in mid-late spring, to be planted outside around mid-late May.

So let's say you want to grow your own onion and tomato seedlings this year. When do you do it? Since onions are a spring crop, you will start them in February (so you can plant outside at the end of March or early April). You'll want to start your tomato plants a little later – probably around the end of March (so you can plant outside in mid-late May).

Varieties

Some crops are very easy to grow from seed, directly in the garden. We don't recommend starting seedlings of these crops, which include root crops like carrots and radishes; crops with sensitive roots, like cucumbers, squash, and okra; or crops that should be seeded thickly, like lettuce, beans, or peas, and some annual herbs like cilantro and dill. It makes sense to plant seedlings of crops that take a long time to grow and produce like tomatoes, peppers, eggplants, leeks and onions, and perennial herbs. Because you are growing these crops in a protected environment, earlier than they could be seeded outside, they will produce earlier than if they were direct seeded outdoors. You may also want to start seedlings of some crops that could also be easily direct seeded (like kale or spinach). Planting seedlings makes it easy to place plants exactly where you want them, and also helps to ensure an earlier crop.

How-To

You will need a few supplies:

- Containers to grow in – plastic (like a yogurt container) can work well as long as it has holes poked in the bottom, or some of the new [peat-pot alternatives](#). Fedco Seeds offers [cedar seeding boxes](#) – or make your own!
- Plastic tray of some kind to set the containers in.
- A plastic bag to cover the containers while they germinate.
- Lighting – a “shop light” with long fluorescent light bulbs works well. (Use one cool white and one warm white bulb for a complete spectrum of light.) You will need to rig up a system so that the light stays about 1-2 inches above the seedlings as they grow (this will involve moving either the light or the seedlings on a regular basis).
- Potting mix. We recommend an organic, soil-less, compost-based mix, like [this](#).
- A mister, like [this one](#).
- Masking tape or labels and a sharpie.

Steps:

1. Get the potting mix slightly wet, if it isn't already. It should feel like a damp sponge.
2. Fill your containers with potting mix and lightly pack it down. Place the containers on the tray.
3. Make holes and place seeds in the soil. As a general rule, seeds should be planted twice as deep as their size.
4. Cover with soil and pat down to make sure soil is touching the seeds on all sides.
5. Use the tape and sharpie to label the containers with the type of plant seeded and the seeding date.
6. Use the mister to water the top of the soil. It should be wet but not sopping.
7. Place the plastic bag on top or around the containers, to keep in humidity.
8. Place the tray of seeded containers somewhere warm, like the top of the refrigerator. Some seeds need more warmth than others. As a general rule, summer crops need warmer temperatures for germination than spring/fall crops.
9. Seeds do not need light to germinate (with the exception of lettuce). *Keep checking the seeds every day to see if they have sprouted.* When you see any sprouts above the soil surface, place the seedling containers under the shop lights, keeping the lights 1-2” above the plants. Plants that have germinated and are left in the dark will develop long stringy stems, which break easily during the transplanting process.
10. Water gently with the mister when the soil surface looks dry.

As the seedlings grow, continue to move the light to keep it 1-2” above them. If the seedlings outgrow their containers, “pot them up” into larger containers. (Look for tell-tale signs like needing to be watered frequently or roots poking out of the holes in the bottom of the container.) Some crops like tomatoes almost always need to be potted up before being transplanted outside. To pot up, gently remove the plant from its container and place it in a larger container filled partially with potting mix. Fill the container with potting mix and firm the soil.

When transplanting your seedlings in a larger container or outside, water with an organic fertilizer like seaweed and fish emulsion, or add a generous sprinkle of finished compost.

And the final steps to starting your own seedlings:

- When the right season comes, plant all that will fit in your own garden
- Share extras with family and friends or donate to a community garden

- Enjoy harvesting and eating your unique crops
- Bask in the satisfaction of raising your own food, from seed to plant to plate!

