

## Starting Your Own Vegetable Seeds

Home gardeners have a couple of choices when it comes to obtaining plants for their garden. They can purchase already grown transplants from their local garden center or they can start the plants from seeds themselves. The garden center option is a safe choice and eliminates the guesswork but there are some reasons why gardeners may choose to grow their own. If you are looking for an unusual variety like a late blight resistant tomato it may not be available locally. With some research, you can find that particular variety in a seed catalog and grow it yourself.

Successful seed starting takes the right materials, conditions, observation and patience but it's worth the effort. For many it's learning by trial and error so don't be surprised if there are a few failures along the way.

Here are the basic materials and conditions needed to be successful with growing seeds indoors:

- Buy fresh seeds from a reliable source. This may be from one of the many online seed companies or from seed racks at your local garden supply store. Read instructions on the seed packet carefully. It will provide instructions on how deep and how far apart to plant the seed. It will also give an estimate on how long it should take for the seed to sprout.
- Suitable containers to grow the seedlings in could include commercially available plastic seed flats and cell packs or you could reuse yogurt cups or cut off milk containers as long as you punch drainage holes in the bottom.
- Soilless mixtures, often referred to as seed starting mixes, gro-mix, pro-mix etc. should be used as a growing medium. They are a mixture of peat moss, perlite and or vermiculite. They are light weight, sterile and drain well. Do not use garden soil or unfinished compost to start seeds since they may contain diseases that harm the seedlings.
- Providing adequate light is the biggest challenge for home seed starters. There is no substitute is good as a greenhouse but you can get by with either a bright south facing window or artificial lighting. Some people use shop light fixtures with at least two cool white fluorescent tubes or special grow lights. The lights should be no more than 4 inches above the seedlings and should be on for approximately 12 hours per day.
- Although optional, a thermostatically controlled heat mat can greatly increase germination success and early growth by providing the ideal soil temperature to get seeds to sprout. These are available from garden suppliers or seed companies.
- Moisture is needed in germination and growth. Young seedlings are fragile and can be damaged by too much moisture. A watering can with fine holes or a misting nozzle will help prevent accidental damage to the plants. Bottom watering is also a good option. Simply fill a tray with room temperature water and place your seedling containing in it to let the water absorb from the bottom drainage holes. Any excess water that is not absorbed after ten minutes should be discarded.
- Proper temperature and air circulation is needed. Avoid temperatures that are too warm. This will result in tall, weak seedlings that may fall over. Once the seeds have germinated a temperature range of 60-65 degrees F should be good for most seedlings. A small fan nearby to keep the air moving is also a good idea.

Here are a few other things to consider for this project. Some seeds will sprout in just a few days and others may take weeks. This is normal and it will test your patience but don't give up. It's all part of the learning curve for growing your own plants. Don't start the seeds too early. Information on the seed packet or in seed catalogs will tell you when to plant the particular variety indoors. They will normally suggest starting a certain number of weeks before the last expected frost date. Tomatoes and peppers may require starting six to eight weeks before the last frost while fast growers like squash and cucumbers only require 2-3 weeks.

When the plants have at least two pairs of leaves you can feed them with a half strength water soluble plant food like 20-20-20 according to label directions.

When your plants are large enough to move into the garden be careful. The light intensity outdoors is much stronger than artificial light or a sunny windowsill. Wait for a cool, cloudy, still day to plant outside. It is even better to gradually introduce the plants to outside conditions by placing their flats in a shaded area for a few days before planting into the garden. This will prevent sunburn which appears as bleaching of the leaves.

Starting seeds indoors is challenging but is a fun project for even novice gardeners. For more information contact John Farfaglia, CCE Niagara County Horticulture Educator, [jaf21@cornell.edu](mailto:jaf21@cornell.edu) or 716-433-8839 x226.