

## EDIBLE GARDENING

### Sowing Vegetable Seeds Indoors

by Rita Pelczar



Tomatoes get a head start growing indoors in cell packs during winter.

In most parts of the country, the kitchen garden looks a bit empty this time of year, but not for long. While it's still too early to plant much outdoors, you can get a jump start on your garden by sowing many seeds indoors.

It takes some planning, space, a little equipment, and time to grow healthy seedlings indoors, but it's worth the effort for the wider selection of varieties available from seed companies compared to the limited choices available at most garden centers—or perhaps you saved seeds from some of last year's self-pollinating varieties. It's not difficult to grow your own strong, vigorous seedlings by following the steps outlined here.

#### PLAN AHEAD

After ordering your seeds, determine the ideal time for planting each crop outdoors in your location. Seed packets usually indicate how many weeks of indoor growth are needed before transplanting outside, so schedule your sowing date accordingly.

Be sure you have sufficient space for your seedlings. If you plant multiple seeds in a pot or in rows in a flat, they'll need more space as they grow and are transplanted into individual pots. Overcrowding weakens seedlings, making them prone to disease. Err on the side of fewer, sturdier plants if space is limited.

Your seedlings will need regular attention—watering, transplanting, adjusting the lights, etc.—so don't schedule

two weeks in the Bahamas during their indoor growing phase unless you have a trusted seedling caretaker. Otherwise, wait until your return to start your seeds, even if it means a bit of a delay.

#### ASSEMBLE YOUR EQUIPMENT

**Containers** Flats, cell packs, plastic pots, recycled yogurt cups, egg cartons—the choices are many. I usually start seeds in a flat and move them to cell packs as they need more space. Covering containers with a clear plastic dome or clear plastic wrap helps retain moisture and heat during the critical germination period.

**Growing Medium** A clean, well-draining soilless growing medium is best for sowing seeds. Prepared seeding mixes are typically fine-textured, to promote seed emergence. Thoroughly wet the medium prior to filling your containers. Be sure to leave some head space to avoid overflow when you water.

**Heat Mat** A heat mat greatly enhances seed germination. For most vegetable seeds, the optimal soil temperature for germination is between 70 and 80 degrees Fahrenheit, which is difficult to achieve indoors. A heat mat delivers bottom heat, so seeds germinate quickly—sometimes in half the time as seeds without bottom heat. Keep the heat mat on 24/7—do not plug it into the timer for your lights, which turn off at night. After the seedlings have developed a set of true leaves, you can remove the mat.

**Lights** Even with south-facing windows, you will need to supplement natural light with artificial light. Grow-light fixtures and bulbs come in various sizes and shapes. Position lights directly above the seedlings; always keep them about four to

six inches above the tops of the seedlings. Plant light stands that provide for easy raising of the fixtures as the seedlings grow are a real bonus. While fluorescent bulbs have commonly been used in the past, LED bulbs are more energy-efficient, last longer, and don't produce excess heat. Keep the lights on for 14 to 16 hours each day; setting them up on an automatic timer is the way to go.

### SOW YOUR SEED

Sow the seed (either in rows in a flat or two to three seeds per pot) to the depth indicated on the seed package. Place the containers—ideally covered with a clear plastic dome—on your heat mat, under your lights. Most seeds do not need light to germinate, but some do.

Germination time for different seeds varies; be sure to keep the surface of the growing medium damp—not soggy. Many seeds are tiny and can be unseated by even a gentle stream of water; a mist sprayer is a good option to avoid this until seedlings develop roots.

Transplant them to larger pots or cell packs after seedlings have developed a few true leaves or use scissors to remove all but the strongest seedling in a single pot. Handle seedlings by their leaves or roots—never their stem, which is easily damaged.



**Crowded seedlings, such as those of basil, shown here, need to be thinned or transplanted into individual pots for continued growth.**

When your seedlings have at least two sets of true leaves use a diluted liquid fertilizer (about half the strength used on mature plants) every other time you water.

Continue growing your seedlings under the lights until it's time to move them outdoors.

### HARDEN OFF THE SEEDLINGS

Many healthy seedlings are lost in the transition from indoors to outside. A gradual acclimatization, known as hard-

ening off, allows seedlings to develop a tougher cuticle, which affords them much greater protection from the elements. For cold-season vegetables, such as cabbage, lettuce, and broccoli, start the hardening off process when night temperatures remain above 45 degrees Fahrenheit. For warm-season crops such as tomatoes, peppers, and cucumbers, wait until night temperatures are in the mid- to upper 50s.

To harden off your seedlings, move them outside for a couple of hours each day, setting them in a partly shaded area that is protected from wind. Bring them indoors at night. Gradually increase the



**Seedlings adjust to outdoor conditions on a shaded deck before they are ready to be permanently planted in the garden.**

time they are left outside, as well as the amount of sun they receive. Alternatively, you can move the seedlings into a cold frame—the walls provide protection from winds, and you can adjust shade with a row cover. After about two weeks, hardened seedlings should be ready to transplant into the garden.

So order your seeds and set up your lights, because even if the weather is frosty outside, you can soon get started indoors on this year's edible garden. ■

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**A heat mat coupled with a grow light gets this tray of seedlings off to a good start.**