

Gethsemane Garden Center 101 Learning Series

Seed Starting Basics

Seed starting and growing your own food.

Growing your own food is rewarding in many ways. The peace of mind of knowing where your food is coming from and how it has been grown is priceless. Many people have the misperception that growing your own food is complicated or difficult. This simply is not true. There are two ways to start your seedlings: sowing directly in prepared garden soil, and/or sow them indoors and then transplanting them once the weather is past the frost date. The frost date near you may differ slightly from someone who lives near the lake or woods. The best way to figure this out is to look to Farmer's Almanac printed or online versions. For example, within our zip code, April 25th is listed as our last Spring frost date. We tend to prefer being on the safer side and suggest waiting until after Mother's Day to transplant your seedlings.



The very first things you will need to do are:

1. Determine your zone, climate, and growing abilities.
2. Select which seeds you would like to grow and purchase the material and tools you will need to get started.
3. Create a germination to transplant chart based on your last frost date and the germination information on the seed packet. (see example on page three)

Must Haves For Starting Seeds

Light

The seeds should have consistent indirect light once sprouted. Then a moderately sunny window or full-spectrum florescent or high-density plant lights are perfect sources for the seedlings.

Water

Use a watering can or container that disperses the water in a stream or gentle spray. If the water is too forceful it is easy to over water or damage the delicate seedling stems.

Seed Starting Mix

We recommend a starting mix with little to no soil. You can create your own, but the prepared mixes are generally free of contaminants and synthetic fertilizers.

Containers

Plastic trays, Styrofoam trays, metal trays, clean glass jars, or new clean clay pots which are at least 2" wide by 2" deep are all good options. Preferably something that either comes with a cover or can be covered with a loose plastic wrap. The containers must have holes for drainage.

Plant Labels/Covers

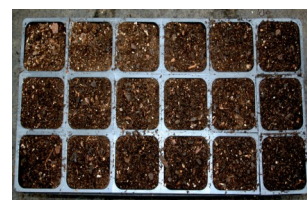
Labeling your seedlings will help you keep track of what you have planted and the timeline for transplantation. Covering your seedlings is essential to preserve moisture and warmth for strong growth.

Step By Step Indoor Seed Starting

- Step 1:** Determine whether the seed will do well as an indoor start or if it should be sown directly into the outdoor space.
- Step 2:** Prepare your seed starting mix by pouring the bag into a bucket. Combine with enough warm water so when you squeeze a handful of the mix it is wet, but not dripping. Let it set to absorb for a few minutes.
- Step 3:** Fill your preferred container, not too compacted, to the top with the pre-moistened seed starting mix.
- Step 4:** Using your finger, poke a hole in the center of the container up to your first knuckle. This follows the basic rule of planting seeds about 1/4 of an inch below the surface. However, for proper germination it is important to check each seed packet for the recommended planting depth.
- Step 5:** Drop two to three seeds per hole for each type of plant and cover with the mix. Place the labels in the containers as you go. Some varieties will do better if you plant more seeds. Refer to the back of the seed packet.
- Step 6:** Place container(s) on a tray with sides to catch the water and for easy transport.
- Step 7:** Cover the containers with a dome, or a loose plastic wrap tent. To create this, place toothpicks in a formation to keep the plastic away from the planting mix. There needs to be air movement so the seeds do not mold and rot. The seeds should be in a warm and dark area for the initial growth.
- Step 8:** When the seeds begin to sprout, remove the covering and place the containers in a well lit area or under grow lights for around 12-14 hours per day. The room temperature should be maintained between 60-72 degrees for proper growth.
- Step 9:** Water the seedlings with your mister or by filling the tray below the containers with water when the surface of the planting medium is slightly dry to the touch. We recommend the later to prevent damage to the delicate seedlings and keep the planting mix evenly moist.
- Step 10:** After the seedlings have established firm growth, pinch out or pluck the smallest seedling in each container or cell to allow more area for the stronger seeds to grow. The best way to do this is with a pair of tweezers. Gently grab the weakling with the tweezers and pull up. If the roots have intertwined with another seedling just pinch the base of the weakling to break it off without disturbing the other plants.
- Step 11:** To grow sturdier plants with healthy stems, gently blow over the seedlings or lightly fan them with your hand to simulate wind.
- Step 12:** After about 6 weeks, the seedlings will be ready to transplant to an outside growing location or permanent grow pot. You will need to “harden off” your little sprouts by gently exposing them to the outdoors. Find a shady protected spot and leave them there for about a week, but bring them in each night. **REMEMBER TO WATER THEM!** After that, move the seedlings into your preferred growing location and plant them according to the instructions on the back of seed packets.
- Step 13:** Tend to your growing beauties and enjoy your organic garden!



Cilantro seeds like to be planted about 8-10 seeds at a time.



Step 3: Fill the container with seed starting mix.



Step 4: Use your finger up to the first knuckle to create the holes for the seeds.



Step 5: Drop the seeds into the created holes.




Step 12: Ready to transplant



Checklist of Supplies Needed

- Seeds
- Dr. Earth or Hoffman Seed Starting Mix
- Jiffy seed starter tray or other containers for growing
- Plastic, metal, or terra cotta drip tray
- Watering bottle or can
- Tweezers
- Trowel
- Organically prepared outdoor soil

Seed companies carried by Gethsemane Garden Center :

- ◆ **Botanical Interests:** almost the full line assortment
www.botanicalinterests.com
 - ◆ **Seed Saver's Exchange:** select assortment
www.seedsavers.org
 - ◆ **Hudson Valley Seed Library:** select assortment
www.seedlibrary.org
 - ◆ **Sandia Seed Company:** pepper seeds only
www.sandiaseed.com
 - ◆ **Livingston Seed Company:** select unique assortment
www.livingstonseed.info/
 - ◆ **Peppers of the World:** fifteen varieties of hot peppers
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Tips From The Experts

- ◆ You can make your own growing containers from old newspapers and then plant them directly into the soil when it is time to transplant. For an easy step by step guide visit: <http://www.instructables.com/id/How-to-make-organic-planting-pots-using-old-newspa/>
- ◆ For an online guide to making your own garden planning chart visit: www.smartgardener.com
- ◆ Write out your own seed sowing timetable based on the last frost date for your area and the germination time of each different type of seed you are planting. For example: tomatoes take 6 to 8 weeks to germinate, our “safe date” for 60660 is May 15th, count back 8 weeks from May 15th and that is when you should start your seeds. The chart below depicts this example.

Type of Plant	Earliest ability to start inside	Germination/grow time	Safe to transplant (as long as there is no frost predicted)	Transplant Date
Tomato	March 20-April 3	6-8 weeks	1-2 weeks after	May 22 –May 29

- ◆ Some seeds easiest to grow at home include basil, broccoli, cabbage, chives, leeks, lettuce, onions, peppers, and tomatoes. The flowers you may want to try include alyssum, marigolds, zinnias, hollyhocks, and Shasta daisies.
- ◆ To clean and reuse your planting containers, wash them out with hot/soapy water, rinse with water, then rinse again with a distilled white vinegar and water solution.
- ◆ A good rule to follow when transplanting is: When the soil temperature has reached 40-50 degrees for cool weather crops and 60 degrees for warm season crops, you may transplant.
- ◆ To prevent both seedling loss and fungus gnats, do not over water. If fungus gnats do develop, treat the planting medium with beneficial nematodes . These are available here at Gethsemane. There are other treatments, but when working with food we always recommend an organic solution.



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