



# Nature & Nurture Seeds' Guide to Starting Pepper Seeds Indoors

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**Tips for success:** Peppers seeds and young plants need a bit more care than their forgiving relative, the tomato. Be sure to provide them with:

- **Bright, artificial light**
- **Good quality soil**
- **Do not allow the plants to become pot bound**
- **Harden off plants before planting outside**

## Why start peppers inside?

In northern climates, peppers need to be started indoors to get a good harvest off of them before the fall frosts come. By starting your own pepper seeds, you get to explore the incredible abundance of colors, shapes, and flavors of the pepper world instead of being limited to the standard hybrids that are usually available as starts. You can also be sure that your young plants get the best care so that they will yield a bountiful harvest.

## When to start pepper seeds?

Start pepper seeds **8 weeks** before the last spring frost. In our USDA Zone 5-6 of southeast Michigan, we start our seeds around March 15<sup>th</sup>.

## Seed Starting

- Supplies
  - Soil: Peppers need good soil! We recommend Vermont Compost's organic Fort Vee or Fort Lite soil products because they provide all the nutrients that young pepper plants need. These are available online from Fedco. *Don't skimp on soil* or you will be disappointed with your peppers (for more info about soil including making your own, see \* soil at the end).
  - Container: any type of container with a drainage hole in the bottom will do; minimum container size for peppers is 1-1/2" x 1-1/2" x 2.25" deep
  - For beginners, we recommend [this seed starting kit](#).
  - Pepper seeds need warm temperatures (77° – 90°) to germinate – they prefer 86°! To provide this heat we recommend using a [seed heating mat](#).

- Starting seeds
  - In USDA growing Zone 5-6, start seeds around March 15<sup>th</sup>.
  - Sow several seeds per container
  - Seed planting depth: ¼"
  - Label with variety name and date
  - Place container on a heating mat
  - Keep seeds evenly moist but not overly wet until germination (air circulation such as a light fan will minimize damping off disease which kills sprouts)
  - Once germinated
    - Remove plants from heating mat
    - Remove all but the one strongest seedling in each container

### **Growing Pepper Seedlings**

- Light
  - Pepper plants need bright light to grow strong and produce a bountiful pepper harvest
  - Provide 16 hours of light per day with a light fixture such as T5 fluorescent or High Pressure Sodium. Be sure to follow the provided instructions regarding the distance between plants and light bulbs - too close will burn plants!
  - Plug light fixture into a timer and set it for 16 hours **on** per day (timer available from your local hardware store)
  - Provide air circulation with a small oscillating desk fan set to low blowing between your plants and the light
- Plant growing temperature: 65-75°F; if you are using lights, be sure it does not get too hot under the lights
- Water: keep plants moist but not wet. If you use bottom watering, remove containers from the water once the soil is wet. Alternatively, use a watering can with a gentle sprinkle. We recommend Haws brand watering cans.
- Fertilizing:
  - If you used a compost based soil mix (such as Vermont Compost's) you do not need to fertilize your plants
  - Otherwise, use fish/seaweed liquid fertilizer weekly as directed on product
- **Make sure plants do not become pot bound!**
  - Pepper plants that remain in their pots too long will become pot bound which hinders growth and permanently stunts the plants. This is the number one cause of unsuccessful pepper growing! *Don't buy pot bound pepper starts!*
  - To prevent potbounding, plant pepper plants outside as soon as roots begin to fill the container but after as the threat of frost has passed. If it is still too cold outside, transplant pepper plants into bigger pots.

## **Prepare Plants For Planting (aka "Hardening Off")**

- Be sure to Harden Off your plants before planting them outside. This process takes 1 week and is necessary to acclimate your "wimpy" indoor-grown seedlings to new outdoor conditions (strong sunlight, wind, and temperature fluctuations)
- To harden off plants – choose 1 of 3 options:
  1. Start by placing your plants in a sunny, outdoor location for 2 hours then put them back under the lights indoors. Each day, increase the amount of time (by 1.5 hours) that the plants spend in the sun until they spend all day and night outside.
  2. Or alternatively, place plants outdoors in a protected (non-windy) location where they will receive only 2 hours of morning sunlight and be in the shade for the rest of the day. Bring them in at night for the first few nights. Each day, place your plants in a location that will receive more sunlight and wind so that in 7 days they will be spending all day and night outside (this can be accomplished by locating them farther and farther away from the source of shade/wind protection)
  3. Or, place plants outside in the sun covered with 4 layers of light row-cover fabric (such as Agribon 15). Weigh it down on 2 sides. Every 2 days, remove 1 layer of fabric then let the plants sit for several days in the full sun and wind before planting.

## **Planting**

- Choose a location in full sun where soil has been amended with organic compost/fertilizer.
- Plant spacing: 1.5 – 2 feet apart
- Planting depth: plant deep so that pepper stems are buried (with some stem and leaf sticking out)
- Label plants with variety name (if desired)
- Water immediately after planting
  - Water the root area of each plant separately several times
- Record in garden journal if desired (date, variety(s), number of plants planted, location)

## **\* Soil – more info**

- It is important to use a high-quality soil mix that provides the right moisture levels, drainage, and nutrients that pepper seeds and young plants need. Soil itself acts very differently when placed inside a container - even the best garden soil or pure compost inside a container will not have the properties needed for seedlings. High quality organic seed starting soil is a mix of ingredients like peat moss, compost, perlite, etc.
- If you buy a soil mix, make sure that it contains compost or organic fertilizer for nutrients because many "seed starting" mixes do not contain plant nutrients – your seeds will start great but your young plants will perish.

- We recommend Vermont Compost's soil mix products available from Fedco. Gardener's Supply offers a lower cost Organic Seed Starting Mix that looks good based on ingredients, but we have not used it.
- Make your own soil mix! [Click here](#) for a recipe (if you are in southeast Michigan and/or have high pH water, do not add limestone to the soil mix).