



Nature & Nurture Seeds' Guide to Starting Seeds Indoors

Why Start Seeds Indoors?

In northern climates, start certain seeds indoors ahead of time then plant them outside when the weather warms up. Why?

- Cold-hardy veggies like greens & onions: To get a jump on the spring so you can plant them outdoors asap in spring
- Warm weather crops: So that they are able to produce vegetables before fall frost kills the plants. These crops include: peppers, tomatoes, basil, ground cherries, okra, and tomatillos. See our [Vegetable Planting Date Guide for USDA growing zones 5 & 6.](#)

Most seeds are relatively easy to start indoors. Having good quality soil, light, and proper watering are all important parts of making sure your seedlings get what they need to thrive. Once your seedlings are ready to go outside, be sure to follow the instructions for “**Hardening Off**” to ease the transition to outdoors; otherwise your plants will be highly stressed.

Supplies:

✓ **Soil:** Use a high quality seed starting soil mix for best success.

Ready-to-Use Seed Starting Soil Mixes:

- Morgan Composting [Seed Starter 101](#) (call to place an order)
- Gardener’s Supply Organic Seed Starting Mix
<https://www.gardeners.com/buy/organic-seedstarting-mix/37-808.html>
- Vermont Compost Company’s [Fort Vee](#) or [Fort Light](#)

Make Your Own Seed Starting Mix:

2 qts sphagnum peat moss or coconut coir fiber

1 qt compost (Morgan or Vermont)

1 qt perlite or vermiculite

1 Tbsp all-purpose organic fertilizer such as [Revita Pro 5-4-5](#), [Down to Earth 4-6-2](#), [Dr Earth](#)

Already have your seed starting soil mix? See *below* to make sure it has all the correct nutrients.

- ✓ **Light:** Plants need bright light. Tomatoes and greens can grow ok in a sunny, south-facing window but most crops need artificial light. Use a T5 fluorescent, LED grow lights or High Pressure Sodium.
- ✓ **Containers:** Use any type of small growing container with a drainage hole in the bottom. 4-packs seedling trays are easiest for home gardeners.
- ✓ **Heating Mat:** Each seed has an optimal temperature for germination - see [Vegetable Seed Planting Guide](#). To provide extra bottom heat we recommend using a seed heating mat such as [this mat](#).

Starting Your Seeds:

- ✓ **When:** For best success, follow [Vegetable Seed Planting Dates for USDA Growing Zones 5 & 6](#). (find your growing zone by zip code [here](#)). Not in zone 5 or 6? Consult your local university extension for growing dates. Tip: If you're in Zone 7 or warmer, simply add two weeks on either end of the growing season for each Zone!
- ✓ **# of seeds:** Sow several seeds per container
- ✓ **Seed depth:** Check our [Vegetable Seed Planting Guide](#) or seed packets for seed depth specifications
- ✓ **Label** your seeds with variety name, crop and date
- ✓ **Soil Temp:** Each seed has an optimal temperature for germination - see [Vegetable Seed Planting Guide](#) and use heating mat as necessary.
- ✓ **Water:** Moisten soil mix lightly before planting seeds. Keep seeds evenly moist but not overly wet until germination

Growing Seedlings:

- Once seeds have germinated, remove heating mat (and remove dome if you are using a dome)
- **Light:**
 - Make sure that your plants get enough light!
 - How long: Ideally, provide 16 hours of light per day with a light fixture. Use a timer (available at your local hardware store)
 - Distance between plants and light: **Follow the instructions for your light fixture - too close will burn plants** (and too far will make your plants weak)

- Provide air circulation with a small oscillating fan set to low blowing between your plants and the light
- Air Temp: Be sure it does not get too hot under the lights. Check this [Vegetable Seed Planting Guide](#) for temp details per crop. Use fans if necessary to cool.
- **Water:** Keep plants moist but not wet
- Fertilizing:
 - Fertilizer 1x per week. Follow instructions on product for dilution rate. We recommend [Neptune's Harvest 2-3-1](#) use 2 tbs/gal of water
- **Thinning:** Remove all but the one strongest seedling in each container (use scissors)

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 for new outdoor conditions (wind, strong sunlight, and temperature fluctuations)
- To harden off plants:
 - 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.
 - 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)

Planting:

- Choose a location in full sun where soil has been amended with organic compost/fertilizer.
- Plant spacing: See our seed packets or [Vegetable Seed Planting Guide](#) for Details
- 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)

* Already have soil mix or started your seeds? **Make sure that your plants have the nutrients they need. If not, your seeds will germinate but your young plants will start to turn yellow and become severely stunted.** Many organic "seed starting" soil mixes do not contain the nutrients that your plants need - you will want to check your soil mix label to see if it contains plant nutrients/fertilizer. Soil mixes that only contain peat moss, perlite, vermiculite, yucca, or lime DO NOT contain plant nutrients/fertilizers. These soil mixes do not include

fertilizer/nutrients: Jiffy Organic Seed Starting Mix, Espoma Organic Seed Starter, and many others.

*If your soil mix does not contain fertilizer/nutrients, add an all-purpose fertilizer (such as [Revita Pro 5-4-5](#), [Down to Earth 4-6-2](#), [Dr Earth](#)) or use liquid fish & seaweed fertilizer (such as [Neptune's Harvest 2-3-1](#)).