Seed Starting Indoors



Gardening from seed has several benefits. With seed gardening, there are more varieties available to you, you know what's going into your food because you are growing it, and you'll save money in the long run, not to mention the great satisfaction that comes with starting from seed.

Why start seeds indoors?

Some varieties are best started indoors because they need particular conditions, and you have more control over the growing conditions. Starting seeds indoors extends your gardening season, allowing you to grow varieties that require longer growing times than your area's natural growing season allows. In the case of perennial flowers, an early start can reap first year blooms.

When is the correct time to start my seeds indoors?

Botanical Interests uses the average last frost date as a guideline for when to sow seed. Your average last frost date is usually defined as the first day of the year when there is less than a 50% chance a frost will occur. It's also helpful to know your average first fall frost date so you can determine the number of days in your growing season as well as plan your summer and fall sowings.

How do I start my seeds indoors?

*Containers and trays:*

Almost any container with drainage holes in the bottom can be used to start seeds including milk or egg cartons, yogurt cups, or plastic trays. When reusing any container, it should be clean and sanitized, and have holes in the bottom that allow excess water to drain. For easy transplanting, try sowing seed in a [biodegradable pot](https://www.botanicalinterests.com/Recycled-Paper-Pots) that can be planted directly into the garden.

*Labeling:*

Don't forget to label as you sow. [Garden stakes](https://www.botanicalinterests.com/product/Garden-Stakes-12-pack), craft sticks, or writing directly on your containers all work well.

*Medium:*

A high-quality seed-starting mix (medium), is loose and lightweight, yet holds moisture while being free from sticks and bark. Avoid potting soil mixes, which can be too heavy for tiny seeds, or soil from your garden that may introduce insects, weeds, or diseases. Thoroughly moisten medium before filling your container.

*Moisture:*

Covering your containers with a clear dome or plastic wrap helps retain moisture and increase humidity during germination. After your seedlings emerge, remove the cover. Misting using a spray bottle, or bottom watering (adding water to the drainage tray) are great ways to keep growing medium moist without disturbing seeds and young seedlings. Check moisture regularly to prevent seeds and seedlings from drying out or from sitting in standing water.

*Temperature:*

Optimal medium temperatures for seeds to germinate will vary for each variety. Once the seeds germinate, room temperatures of 70°–75°F will help most seedlings grow best. Frost-sensitive plants such as [tomatoes](https://www.botanicalinterests.com/category/Tomato), [eggplants](https://www.botanicalinterests.com/category/Eggplants), and [peppers](https://www.botanicalinterests.com/category/Peppers) appreciate warmer soil conditions and may benefit from the use of a seedling heat mat when sown indoors. See your seed packet for and specific soil temperature needs to be noted in the sowing instructions.

*Light:*

For best growth, seedlings need at least 14 hours of quality light per day. Even your sunniest window may not supply enough light to grow strong plants. Of course, a grow light is ideal and a 4-bulb fluorescent light is an inexpensive option. If you are using a fluorescent fixture, a cool-tone, or a mix of cool and warm-tone bulbs are best and will need to be situated 1–2 inches above the seedlings. Grow light can be placed further from seedlings. If your seedlings look as though they are stretching towards the light, the bulbs are too far away. To make it easier, plug your lights into a timer that is set to turn on and off automatically.

*Circulation:*

Air circulation around seedlings can help prevent disease problems while strengthening seedlings. A fan on low setting will create adequate airflow. Avoid aiming the fan directly at the soil, as it can cause rapid drying; instead, point it a wall near the seedlings or above the soil.

*Fertilizer:*

If your seed starting mix does not contain nutrients you should add a diluted amount of slow-release, organic, balanced fertilizer to the media or use a liquid formula once seedlings have true leaves. "Balanced" fertilizers have equal amounts of nitrogen, phosphorus, and potassium represented on fertilizer labels respectively as numbers with dashes between (e.g. 20-20-20). Check the label for instructions on diluting the fertilizer, and the recommended frequency for seedlings and transplants.

*Hardening off:*

"Hardening off" is the 7 to 10-day process of acclimating plants started indoors to outdoor conditions. The hardening off process reduces transplant stress and the chance of sunburn, which both negatively impact overall performance and yield. Start by placing plants in a protected, shady area, progressing to more sun (for sun-loving varieties) over the 7 to 10 days. Be sure to bring plants in at night if temperatures drop below 45°F, even if they are frost tolerant. After 7 to 10 days, plants will be ready for transplanting. Before transplanting, consider fertilizing with seaweed or kelp to further reduce transplant stress. Transplant on a calm, cloudy day, in the evening, or use row covers to buffer wind, sun, and temperature swings. Most frost sensitive plants perform best when transplanted in soils over 45°F.

*What types of plants should be started indoors?*

* Plants that require a long growing season to reach maturity.
* [Perennial flowers](https://www.botanicalinterests.com/category/Perennials-Flowers) that you want to encourage to bloom in first season.
* [Sprouts](https://www.botanicalinterests.com/category/Sprouts) and [microgreens.](https://www.botanicalinterests.com/category/Microgreens)

Here are some examples of varieties that would benefit from a head start indoors:

[Asters](https://www.botanicalinterests.com/product/China-Aster-Blend-Aster-Seeds), [black-eyed susans (rudbeckia)](https://www.botanicalinterests.com/product/Black-Eyed-Susan-Seeds), [coleus](https://www.botanicalinterests.com/product/Black-Dragon-Coleus-Seeds), [lavender](https://www.botanicalinterests.com/category/Lavender), [eggplants](https://www.botanicalinterests.com/category/Eggplants), [bulbing onions](https://www.botanicalinterests.com/category/Onions) and [leeks](https://www.botanicalinterests.com/product/American-Flag-Leek-Seeds), [peppers](https://www.botanicalinterests.com/category/Peppers), [tomatoes](https://www.botanicalinterests.com/category/Tomatoes), [rosemary](https://www.botanicalinterests.com/product/Rosemary-Heirloom-Seeds), and [thyme](https://www.botanicalinterests.com/product/English-Thyme-Seeds).

On the inside of every Botanical Interests seed packet you will find the best growing conditions for the variety. We provide information about special care, organic gardening methods, and tips to improve your garden throughout the seasons. All that's left to do is watch your seeds grow into beautiful, healthy plants!