

How to Sow Seeds Indoors: A Step-by-Step Guide

Starting seeds indoors is a great way to get a head start on your garden. This guide walks through the process step-by-step to make sure you have healthy seedlings for transplanting.

Step 1: Select Your Seed

- Obtain quality seeds and check the date stamped on the packet.
- Expect some duds: A 60-75% success rate is average.
- Start on time: Consider local climate and average last frost date to determine when to start seeds (usually count back 6-8 weeks from the last frost date).

Step 2: Gather Supplies

- **Containers:** choose clean containers with drainage holes—seed trays, pots, or recycled containers are fine.
- **Growth media:** a sterile, well-draining seed starting mix is better than garden soil, which can contain pathogens or weed seeds.
- **Watering can or Spray Bottle**
- **Humidity cover:** use clear plastic wrap, propagator lids, or glass to trap humidity and maintain warmth.
- **Bottom Heat Mats:** Many seeds require a soil temperature of 65 to 80 degrees for germination.
- **Light source:** if needed, artificial lights can be used to mimic sunlight and promote healthy growth; fluorescent or LED grow lights are options.
- **Plant labels**

Step 3: Prepare Containers

- Fill containers with seed-starting mix to about $\frac{1}{4}$ to $\frac{1}{2}$ inch from the top.
- Moisten mix, letting excess water drain off – mix should not be soggy.
- Gently press down the mix until it feels slightly firm but not compacted.

Step 4: Sow the Seeds

- Plant one or two seeds in each container at the recommended depth, usually about twice the diameter of the seed.
- For small seeds and seeds that need light to germinate: sprinkle seeds on the surface of the mix and press in gently with your fingertips.
- Label the containers with plant names and sowing dates.

Step 5: Create a Warm and Humid Environment

- Cover seed trays or pots with a clear cover.
- Place in a warm location or use bottom heat mats.

Step 6: Water and Monitor

- Keep the mix moist but not soggy, to avoid disease or stunted growth.
- Watch for signs of germination, which will vary by species from a few days to several weeks.

Step 7: Provide Light

- Once seedlings emerge, remove the cover, and provide about 12 to 16 hours of light per day using grow lights if necessary.
- Position lights 2-3 inches above plants and adjust as they grow.
- Rotate trays or pots regularly for balanced growth.

Step 8: Repot and Thin (if needed)

- Repotting may be needed after seedlings develop their first true leaves, usually 4 to 6 weeks after germination.
- Thin the seedlings to just one or two per container if necessary. Cut the weaker seedlings off with scissors to avoid disturbing the root ball.
- Repot if the container is too small, doesn't drain well, or if you see roots circling around the inside of the pot or sticking out of drainage holes.
- Choose a new pot 2-3 times larger and transfer seedlings with their root ball intact.

Step 9: Harden Off and Transplant

- Before transplanting the seedlings outdoors, let them get used to the weather outside gradually, a process called "hardening."
- To start, put them outdoors for about an hour in a shaded area, then gradually increase their time outside and exposure to sunlight over the next 7 to 10 days.
- Plant seedlings outside after the risk of frost has passed, making sure to follow the spacing instructions on the seed packet.

REFERENCES

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<https://hgic.clemson.edu/factsheet/starting-seeds-indoors/>

<https://www.pubs.ext.vt.edu/426/426-001/426-001.html>

<https://extension.umn.edu/planting-and-growing-guides/starting-seeds-indoors>

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