



# STEP-BY-STEP GUIDE TO STARTING A GARDEN FROM SEEDS

Looking to start a garden from seeds? Follow these steps for the best results.

1. Pre-moisten the soil before filling seed trays
  - Let the soil reach room temperature before filling the trays.
2. Fill seed trays with soil depending on the crop being grown.
  - Lettuce can be put into smaller, transplant-size trays.
  - Tomatoes need larger transplant-size trays.
  - Egg cartons and disposable cups are good alternatives for seed trays.
3. Poke holes in the soil to the depth needed for particular seeds and crops.
  - Using the butt end of a nail can help keep the hole smaller.
4. Place seed into the hole.
  - Depending on the seed germination rate (the percentage of seeds likely to germinate), it may be necessary to plant a few seeds per hole.
5. Put just enough soil over the seed to cover it.
  - Having good seed-to-soil contact will allow for more uniform germination.



6. Water the seeds, but not so much that the soil moves, and the seeds float away.
  - Using warm water (80 degrees Fahrenheit) can help with germination.
7. Keep soil moist, but not wet.
  - Touching the soil to ensure that it's not too wet is always a good idea.
  - Once seeds germinate, cut back on watering to begin proper root development.
8. Provide lighting to ensure that the seeds get the energy needed to grow.
  - Typically, seeds need 8-10 hours of light a day.
  - A desk lamp or ceiling light are good options if you don't have enough sunlight from a window.
9. After the transplant starts to get larger, a multipurpose fertilizer may be needed for better growth and vigor.
10. Before planting outside, plants need to be "hardened off."
  - Hardening off means allowing the plants to get acclimated to outdoor conditions to make it stronger before it is permanently planted outside.
  - Suitable options for hardening off are a carport, porch or under a tree.
  - Days 1-3: put in direct sunlight for two hours
  - Days 4-7: put in direct sunlight for five hours
  - Days 8-10: put in direct sunlight all day.
  - Be sure to check your transplants regularly during this period as the sun will soak up the water in the soil more quickly than indoor light.



11. After the hardening off period, your plants can be planted in their final location.
12. Enjoy the fruit of your labor based on the days to maturity located on your seed packet.
  - Days to maturity is not measured from the time planted as a seed but from the time planted in the soil as a larger transplant.

**Pro Farmer Tip:** Use a heat mat at a low temperature to assist in keeping your soil warm during the germination process. Moderately priced heat mats can be purchased online, but a dog kennel heat pad could work if you have one.

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*For more information, contact John Kimes, ANR horticulture farm manager, at [jekimes@ncat.edu](mailto:jekimes@ncat.edu).*

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