

ecoïstas
Comprehensive
Seed Starting Guide



Table of contents

1. Introduction to Seed Starting
2. Selecting Seeds
3. Gathering Supplies
4. Planting Seeds
5. Germination and Care
6. Transplanting Seedlings
7. Maintenance and Care
8. Harvesting and Enjoying
9. Troubleshooting Common Issues
10. Advanced Tips and Techniques
11. Conclusion

There are no gardening mistakes, only experiments!

Hello fellow gardening enthusiasts,

Our favorite method of starting seeds indoors is the pricking out method and that is the method that we will focus on in this guide. We start all smaller seeds (peppers, tomatoes, eggplants, herbs, etc.) in flat trays filled with our own seed starting mix made of coco coir or peat moss and vermiculite and/or perlite. Each tray can start up to a few hundred seeds. Seeds are arranged in rows, lightly covered with peat moss, marked and lightly sprayed with water. The tray is covered with the humidity dome and placed on a heat mat. Once they germinate and start showing two little leaves, they are transplanted into separate cells filled with potting soil. At this point we turn the lights on for 14 hours and decrease by 1 hour every week. We do not fertilize them at this stage (unless they stay in the same soil and pot for more than 4 weeks) because the potting soil has enough nutrients for 4 weeks. If we do fertilize them, we do it with a weak solution of fish fertilizer. In about 3-5 weeks these beautiful, healthy starts are ready to be hardened off and transplanted in the garden.



1 trays germinates ~ 200 seeds



10 days old transplanted seedlings

Starting seeds indoors might be the only option to grow certain vegetables in short growing zones that have short/er summers and ensure a successful growing season. Whether you're a seasoned gardener or just beginning, seed starting allows you to control the entire growing process from seed to harvest.

In this comprehensive guide, we'll walk you through everything you need to know to start seeds indoors successfully.

1. Selecting Seeds

The first step in seed starting is choosing the right seeds for your garden and your hardiness zone. Consider factors such as your climate, available space, and personal preferences. Decide whether you want to grow vegetables, herbs, flowers, or a combination of all three. Choose varieties that are well-suited to your growing conditions and that you'll enjoy harvesting and eating. If you have a limited space for gardening, choose crops that grow vertically on trellises.

When selecting seeds, look for organic, high-quality, non-GMO seeds from reputable suppliers. Check the seed packet for information on planting depth, spacing, and days to maturity.

2. Gathering Supplies

Before you begin seed starting, gather all the necessary supplies. If you have a limited budget, do not spend money on seed starting supplies that you can find around your home. After about 40 years of experience, we will tell you (and especially the beginners) that growing food does not — and should not — require spending a paycheck on.

The only supplies that you really need to buy for successful seed germination and growing healthy plants are the seeds, the growing media and some kind of container (and love of course). Recycled containers need to have a few draining holes and be clean. You can even use a spent toilet roll to start your seeds in, or something similar. Masking tape or anything similar could be used to mark the plant varieties.



If however you do have a budget, consider buying containers for planting, such as seed trays, peat pots, or recycled containers with drainage holes. Clean containers will ensure prevention and the spread of diseases. You will also need a high-quality seed starting mix, which provides the ideal balance of moisture retention and aeration for seed germination.



Other supplies include plant labels to identify your seedlings, a watering vessel or spray bottle for watering, and a warm location for germination. If you don't have a heat mat, place them near a heat source. Most seeds do not require light to germinate so consult your seed packet. Once the seeds start germinating they will need a sufficient amount of light. If your location does not have natural sunlight, consider using grow lights to provide the necessary light for healthy seedling growth.

3. Planting Seeds

Once you have your supplies ready, it's time to plant your seeds. Make sure that your growing media (seed starting mix) is moist enough but not wet. If you squeeze a handful of this mix in your hand, you shouldn't have a drop of water come out. Fill your containers with seed starting mix, leaving a small gap at the top for watering. Pat it gently so the seeds don't fall to the bottom.

Follow the instructions on the seed packet for planting depth and spacing, as this can vary depending on the type of seed. Place the seeds on top of the growing media, gently pressing them into the soil. You can plant multiple seeds per container and thin them out later if necessary. Once the seeds are sown, label each container (cell, row, etc.) accordingly with the seed variety and planting dates. This step is necessary if you grow different varieties of peppers for example, because most of them will look the same or very similar once they start growing. We speak from experience.



4. Germination and Care

Cover your containers with humidity dome and place in a warm location with temperatures between 65-75°F (18-24°C) for optimal germination. Most plants do not require light to germinate. Keep the soil consistently moist but not wet, as too much moisture can lead to damping off and other fungal diseases.

Required germination temperature example

T requirements	Onion	Radish	Tomato	Pepper
minimum	(0C, 32F)	(4C, 39F)	(10C, 50F)	(16C, 61F)
optimal	(27C, 81F)	(27C, 81F)	(27C, 81F)	(30C, 86F)
maximum	(35C, 95F)	(35C, 95F)	(35C, 95F)	(35C, 95F)

Source: [IJFAS](#)

Check your seeds daily for signs of germination, which can typically occur within 5-10 days depending on the type of seed. Once the seeds have germinated, remove any covers or lids to allow for air circulation. Continue to water the seedlings as needed, keeping the soil evenly moist but not saturated.

5. Transplanting Seedlings

As the seedlings grow, you need to decide which method you will use to transplant them, and when. We transplant our seedlings when they are about 1" above ground and have 2 leaves.

Leaving the seedling in seed start mix longer than 2 weeks may:

- a) cause roots to entangle making it harder to separate them during the pricking process,*
- b) grow thin and weak seedlings that may break easily (especially if you have sown them thickly), and*
- c) require adding nutrients because this growing media does not have any.*

In short, we do not recommend leaving the seedlings in this seed start mix more than necessary, usually 10-15 days. If you choose to leave them longer, consider

feeding them with a diluted organic fertilizer or compost tea. Be careful not to over-fertilize, as this can lead to nutrient burn and other problems. Read the product's label instructions for frequency and dose of application.

If you use a different method of starting your seeds, follow that method for best results. Generally speaking, the seedling — and plants in general, — need to be transplanted into a larger pot (or ground) filled with potting soil as soon as they have overgrown the container they are in so they do not become root-bound.

Seedling grown with our method need to be transplanted to a bigger pot (aka up-potting or potting up) at least once before they can be planted into the ground. Before planting them into the garden, harden off your seedlings by gradually exposing them to outdoor conditions over the course of 7-10 days. This will help them acclimate to the changes in temperature, light, and humidity.

When transplanting seedlings, handle them carefully to avoid damaging the delicate stems and roots. Prepare the planting area by amending the soil with compost or other organic matter to improve drainage and fertility. Dig a hole slightly larger than the root ball of the seedling and gently transplant it into the hole.

Water the newly transplanted seedlings thoroughly to help them establish roots in their new environment. Keep the soil consistently moist until the seedlings are established and showing new growth. Depending on the type of plant, you may need to provide support such as trellises, cages or stakes to help them grow upright.



6. Maintenance and Care

Once your seedlings are established, they will require regular maintenance to ensure healthy growth and productivity. Water your plants according to its needs, especially during hot, dry periods. Mulch around the base of the plants to help retain moisture and suppress weeds.

Monitor your plants for signs of pests and diseases and take appropriate action to prevent and control infestations such as hand-picking pests or using companion planting techniques to deter pests naturally.

Fertilize your plants regularly with a balanced organic fertilizer to provide the necessary nutrients for healthy growth and development. Follow the label instructions on the fertilizer package for application rates and timing, and be sure to water thoroughly after fertilizing.

7. Harvesting and Enjoying

As your plants mature, they will begin to produce flowers, fruits, or root vegetables, depending on the type of plant. Harvest your crops regularly to encourage continued production and prevent rotting or over-ripening. Use clean and sharp pruners to harvest fruits and vegetables, and handle them carefully to avoid pulling, bruising or damaging the plant.

Enjoy the bounty of fresh homegrown produce in your meals or preserve some for later use, Do not forget to share with friends and family because sharing is the best part of this process, and the most fulfilling experience.



Conclusion

Starting your own seeds (indoors or outdoors) is a rewarding and cost-effective way to grow your own food. By following these steps and tips, you will be well-equipped to start your own seeds successfully and enjoy a bountiful harvest.

There's nothing quite like the taste of freshly harvested vegetables or herbs from your own garden! Besides the taste, you will most likely have a sense of accomplishment knowing that you actually *can* grow your food, and also help the planet Earth along the way.

About Ecoistas

We call ourselves the Ecoistas - the enthusiasts who care for our ecosystem. We promote sustainability, diversity and believe that we can all do something to protect Mother Earth. Join our movement and share our ideas and information with your friends and family. This is how you too become one of the many Ecoistas...

Join the Ecoistas movement!

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