

## Tips for Success

Are you new to starting seeds or a pro? Whatever your skill level, Outsidepride has tips for your growing success!

Here are the most important considerations for starting seeds indoors.

### Timing

Ideally, seeds are started early enough so that you will have transplants the right size to set out once your outdoor temperatures are favorable.

Tips on Timing:

- Know your first and last expected frost dates for your location. This information is available online. A seedling acclimates best when the soil temperature has warmed and there is no danger of frost.
- Know how long to grow the seedlings indoors before transplanting out. A simple rule for both annuals and perennials is to allow 6 to 8 weeks for growth to have a plant large enough to transplant.

Once you know your last expected frost date, count back and sow the seeds 6 to 8 weeks prior to that date. Sturdy seedlings will have the best chance of being successfully transplanted once the soil temperature has warmed and night time temperatures are in the mid-50 degree range.

### Gather Your Supplies

Supplies for starting seeds include pots (purchased starter cells or homemade pots like yogurt or plastic cups with holes for drainage), trays to place the pots in, dome lids for the trays or clear plastic wrap, seed starting mix, heat mat, and water soluble fertilizer.

Tips for Supplies:

- We have found that the square shaped plastic pots for seed starting fit together well in the trays and make the most of the space (and can be used year after year). Our preference is not to use the peat pots or peat pellets because they can dry out way too fast. If you are using peat products, please check daily for adequate moisture levels.
- Choose your sowing medium carefully. It should be porous and well-drained but absorbent and soft as well. Mix the soil with water first. We use a bucket and alternate pouring the seed starter mix in and water in, stirring between each layer. Never use soil from your garden to start seeds indoors because it's full of weed seeds and possibly disease organisms.
- If you start your seeds in an unheated room like a garage or a basement, a heat mat is needed to keep the seeds at a consistent temperature and germination will be much faster. We have found that in our living area where the temperature fluctuates from 70 to 72 degrees that seeds germinate well without a heat mat.
- We've used both plastic dome lids that fit over the trays and plastic wrap over the trays. Both of these methods work well.

### Get Ready to Plant

Once you have the timing planned out and the supplies on hand, set aside an afternoon when you can make a mess and have some fun getting dirty! Kids love to join in on this part. Good seeds for kids to start with are marigolds, nasturtium, morning glories and zinnias.

#### Tips for Planting:

- Prepare the seeds. The seed packet or some research will tell you whether or not your seeds need to be prepared prior to planting. Soaking seeds, nicking, or rubbing the seeds with sandpaper are all methods of preparing the seed to germinate more easily.
- Fill your pots with the moistened soil, leaving a little room at the top for the seeds and soil to cover them. Gently tamp the soil down to eliminate large air gaps but not so hard that the soil is packed tight. You want your plants to have an easy time sending out roots.
- Follow the directions on the packets for planting, but a good rule of thumb is to plant the seed as deep as 1 – 2 times the size of the seed. That can be very, very shallow so that the tiniest of seeds are only gently pressed into the soil. Put 3 or 4 seeds in each pot. Small seed simply pinch between thumb and forefinger and sprinkle.
- Mark each pot clearly so that you know what is growing in it. This sounds like a simple thing but we've forgotten this many times and have grown unknown flowers that we couldn't identify until they were mature!
- Place the pots in the trays and pour enough water into the tray so that there's about ½ inch covering the bottom of the tray. The pots sit in the water and the soil can wick up the moisture keeping the soil moist. We also use a fine mist spray bottle to mist down the surface of the pots.
- Cover the trays with plastic domes (trays and domes are often sold together) or with plastic wrap from the kitchen. This helps hold heat and moisture in and create a greenhouse effect. Lift the dome or plastic off each day and mist down the surface of the pots. This is especially important for small seeds that are on the surface.

### Waiting for Germination

Germination varies greatly on the type of seed and on the conditions they are planted in. It is very exciting to see the first few signs of life pop up on the surface of the starter mix.

#### Tip for New Sprouts:

- Once the first sign of a sprout appears, open the vents on the plastic domes or loosen the plastic wrap and cut a few slits in it so that there is better ventilation.
- Maintain the water levels in the trays of about ½ inch. Continue to mist down the surface of the soil daily.

## Growing Seedlings

You've successfully germinated seeds! Now you have a whole new role of growing seedlings and keeping them healthy.

Tips for Growing Healthy Seedlings:

- Once seedlings have emerged in most if not all the pots, remove the dome or the plastic wrap and allow for good air movement. An oscillating fan on low can mimic wind and helps in seedling vigor and in preventing disease.
- Ideally, water should be room temperature. If it's chlorinated water, let it sit overnight so that the chlorine can dissipate. Keep the soil consistently moist but avoid overwatering.
- Seedlings will need some fertilizer. Start out with a very weak mixture of fertilizer and water (about  $\frac{1}{4}$  of the full strength rate) and feed the seedlings once each week. Since you're already keeping about  $\frac{1}{2}$  inch of water in the trays, and you're checking the trays each day, just add the weak fertilizer solution to the trays once each week. After about 6 weeks of growth, apply the liquid fertilizer full strength (according to the directions on the bottle), and do this about every other week until transplanting.
- Light, light, light! For the healthiest growth, seedlings need 14 – 16 hours of direct light each day. So, depending on your climate, a south facing window, may or may not provide enough light. We have grown a few seedlings in our south-facing windows, and with rotation to ensure that all the seedlings are getting good light, we have had success. There are grow lights online and instructions for creating your own light station. If you're serious about starting seeds and know that you'll be doing it year after year, invest in some material to keep light on your seedlings. A timer is a great addition to the light station too – have the lights set to automatically turn on and off and the oscillating fan can turn on and off if it's plugged in to the timer as well.
- If plants get too tall before it's time to plant them out, pinch them back leaving plenty of foliage and some branches so that growth can continue. A small pair of pruning shears or even scissors do a better job of "pinching" than fingers do. Pinch off just above a lower leaf or branch.
- Thinning may be needed if too many seeds have been sowed (easily done with very small seeds), so it's best to use a small pair of sharp scissors and snip the weakest seedlings. Leave two of three in each pot to thrive. Don't pull the seedlings out because the roots are entwined with each other and damage will occur when pulled.

## Transplanting Seedlings Outdoors

Your seedlings have been well taken care of for weeks, and now is the time to transition your seedlings to life outdoors. The process of gradual transition from indoor growing to the great outdoors is called hardening off. It's a process that should be done slowly over the course of a week or two. If it's done properly, you'll have vigorous seedlings that are ready to withstand whatever nature throws at them. If the process is rushed, the seedlings can be burned from the sun, damaged from the wind or even killed.

Tips for Hardening Off and Transplanting:

- Seedlings are definitely ready for transplanting when you see roots poking through the hole in the bottom of the pot. While each plant type is different, a good general rule is to harden plants off when they are 2 – 4 inches in height and have a good root system.
- Pick a protected area outdoors to place your seedlings. It should be partially shaded and have wind protection. We use our protected deck for our hardening off. Place the seedlings in this area for a few hours, and then bring them back in each night. Gradually, over a period of 7 – 10 days expose them to more and more sunshine and wind for longer periods of time each day. The last half of the hardening off days, the seedlings can spend the nights out (make sure you've checked your forecast for nighttime temperatures – nothing below 40 degrees at night is best).
- During this period of hardening off, gradually reduce watering. You don't want seedlings to wilt, so slowly stretch the period of time between waterings. Also, stop using fertilizer the week before starting the process of hardening off. Don't fertilize again until you transplant the seedlings outdoors into their permanent place.
- After 7 – 10 days of hardening off, the seedlings should look stockier and tougher. It's best to transplant on an overcast or drizzly day when the winds are calm or in the evening. Avoid planting out in high temperatures or in heavy winds or rains.
- Prepare the beds before transplanting by weeding, raking the soil and removing debris and dirt clods.
- Water in each transplant with some liquid fertilizer. Do not use your hose on full flow, but use a gentle flow to thoroughly water the soil around the transplant, creating a puddle around the base.
- If needed, provide some protection from slugs, snails and other pests. We also lay down some aged mulch around the base of each transplant to help conserve water and keep weeds down.

You've done a great job! There is definitely a sense of accomplishment and satisfaction as you look over your yard and see your new plants thriving. You've saved lots of money by growing from seed instead of buying plants from the nursery, and you have gained skills and knowledge that will serve you for a life time. Just be prepared ... once you start a few seeds, it can become quite an enjoyable hobby that you'll want to do each and every year.