

Starting Seeds Indoors

Starting seeds indoors is an easy, inexpensive, and increasingly popular way to raise a wide assortment of edible and flowering plants.

You can grow a far greater variety of vegetables than the ones available in the produce section of the supermarket, and you can grow them for a fraction of the price. Likewise, choose from a dazzling array of flowers, many of which are only available in seed form. Look for your favourites, try out some heirlooms, and don't be afraid to experiment with something new or a little more unique.

There is an added advantage in that you can choose the method in which to grow them. Many gardeners are opting to use organic fertilizers and pest control methods. Even when space is limited, it's surprising how much you can grow. You can easily raise vegetables in containers on a balcony or in a small garden. All that you really need is a sunny location. (Note: Most vegetables require around 6 hours of sunlight a day. Leafy vegetables can tolerate some shade.)

Getting children involved in the process can also be a lot of fun. Whether it's flowers or food, there is something timeless and magical about kids watching their seeds sprout and grow. It's a great way to educate little gardeners.

BEFORE YOU START

- Read through books, seed catalogues and horticulture magazines to get ideas and information.
- Visit our seed racks and note the types of seeds that interest you, and when they should be sown. If you are not sure about the availability of specific varieties, ask any of our staff members for help. Take notes on planting methods and dates from either the back of the seed packets or seed catalogues.
- Determine where in the house you want to start the seeds. If it's near a window, make sure that the temperature does not fluctuate. The best spot is an area out of direct light in a cool room (16°C to 21°C during the day).
- Be sure to choose seeds suitable for the outdoor garden space you plan on transplanting them to.
- Gather the materials from the checklist so you have everything you need.
- Be sure to choose the appropriate planting container(s). (Read more about this further a little along.)

IMPORTANT!

Some seeds should be sown directly outside. Seeds for root crops like carrots and beets should be directly sown into the ground where they are to grow. These plants do not transplant very well and moving them will result in malformed roots. Cool weather crops (e.g. lettuce, radish and spinach) should be directly sown too. Don't waste your time starting easy flowers like asters, clarkia, alyssum, California poppies or wildflower mixtures. These can simply be scattered directly into your garden or planter. Determine which ones need to be started indoors by checking the directions on the back of the seed packet.

MATERIAL CHECKLIST

- An assortment of seeds.
- A sterile, light media for starting seeds.
 - e.g. **Black Gold Seedling Mix** or **Sunshine #4 Mix**.
- Choose from:
 - Seed flats and inserts in either cells or rows.
 - Peat or coir pots placed in plastic seed flats.
 - Azalea pots (pots that are short and wide).
 - Peat or coir pellets.
- Mister bottle.
- Water insoluble marker and plant labels.

NOTE: The type of inserts that you purchase is dependent on the type of seed and length of growing time before transplanting outside. If you are sowing very fine seeds such as begonias, use the inserts that have rows of seeding areas. This makes it easier for you to transplant and also to sow a large number of seeds. If you wish to have a large sized plantlet when you set them in the garden, choose the large celled packs to encourage unhindered root growth.

CHOOSING AND PREPARING YOUR GROWING MEDIA

Garden soil or potting mix may be too heavy and can be problematic for growing seeds successfully indoors. We suggest using a light, sterile media. "Black Gold Seedling Mix" is perfectly formulated for this purpose.

To begin, clear off an area (preferably on a counter) where you can make a mess without disturbing the rest of the household. Moisten your starter mix with warm water and work through the mix with your fingers. Try to eliminate all dry clods. Add moistened starter mix to flats, flat inserts or peat containers until about 1 cm from the top rim. Tap the container down to rid the soil of air bubbles. In the case of jiffy pots, place them in a tray with about 1 cm of warm water and let them absorb the water.

PLANTING THE SEEDS

The method of sowing a seed depends on the type of seed.

- **Large Seeds:** For large size seeds such as sunflowers, cosmos, calendulas and beans, sow each seed in individual peat pots, individual cell inserts or in pre-soaked jiffy pots. The depth of planting is approximately 2.5 times the width of the seed. For example, a sunflower seed is about 1 cm wide so plant it 2.5 cm deep. Unusually large seeds germinate and develop very quickly. Some seeds such as peas need to be soaked overnight to help soften the seed coat before planting.
- **Very Fine Seeds:** Mix fine seeds with some sand in a cup and sprinkle or "broadcast" onto either prepared flats or wide, shallow pots like azalea pots.
- **All Other Seeds:** Plant in row inserts or flats.
 - For row inserts: Tap seeds from the packet into the rows and cover gently with seeding media, or with washed horticultural sand.
 - For flats: Make ridges with a pencil or chopstick and cover gently with seeding media, washed horticultural sand or moistened vermiculite.



TAKING CARE OF THE SEEDS DURING GERMINATION

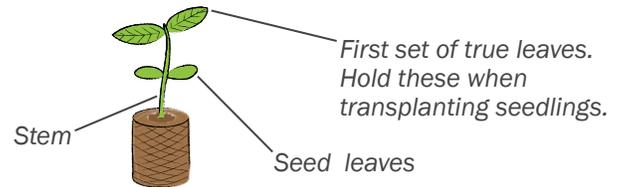
Once the seeds are sown and appropriately labelled, moisten the surface of the flats, container or peat pots. Do not soak. Place these newly seeded containers in your designated seedling area. In a few days (sometimes weeks), the seeds will germinate.

It is of the utmost importance that the seeds are neither over-watered nor left to dry out. If seedlings are over-watered they may suddenly lose vigour and fall over or "damp off". Place seedlings in a well ventilated area.

You do not need to fertilize the seedlings yet as they have enough food source stored up in the seeds to take them to the first leaf stage.

SPACING THE SEEDLINGS

When the seedlings grow their first set of true leaves (please see the illustration below), it is time to space them out. Use a dibbler (a pointed object for transplanting seedlings) to gently dig the seedling out, then with your other hand, guide the plant by its true leaves (not the stem or seed leaves) into a pre-made hole. Lower the roots in to the hole gently and make sure that the plant is at the same level in the soil as it was in the seed tray. Gently firm the soil around the base of the plant. Seedlings may be transplanted into cell packs in groups of 4, or in to smaller cell packs individually.



FERTILIZING YOUR TRANSPLANTED SEEDLINGS

The seedlings should be fertilized after transplanting. Use either a well balanced water soluble fertilizer such as **GARDENWORKS™ 20-20-20**, or a slow releasing fertilizer such as **GARDENWORKS™ 14-14-14**. Make sure you read the rates prior to mixing the solutions as strong mixtures of fertilizers can easily hurt your young seedlings.

"HARDENING OFF"

The next step is "hardening off" the plants prior to planting them in the garden. Hardening off is a process of preparing the plants for outdoor conditions. You may begin this process two weeks before planting them in the garden by placing the plants outdoors (out of direct sun) everyday and taking them in during the night, when cooler temperatures may put your seedlings at risk. Dates for planting out are also mentioned on the back of seed packets.

TRANSPLANTING

Don't be in a rush to set your plants in the garden. If they won't withstand frost, be sure all danger of frost has passed before setting them out. Plan the garden in advance, making sure your tall plants won't shade your low growing plants.

Water the seedlings and the ground outside thoroughly before transplanting. This helps prevent transplant shock. It's preferable to transplant on a cloudy day so strong sun won't wilt your seedlings. Press the soil firmly around the roots. Water immediately after transplanting and then every day for the first week. Using **GARDENWORKS™ Transplant Fertilizer** greatly reduces transplant shock and encourages strong and healthy root formation. Be sure to water deeply so your plants won't develop shallow roots.