

Food Share

Seed Starting

With spring fast approaching, it is time to begin planning for the upcoming growing season. Here are a few tips for starting vegetable and herb seeds indoors. By starting your own seedlings you can save money and be sure that your plants are raised without pesticides or chemical fertilizers. And, most importantly, you can get a head start on the joys of gardening by watching your seedlings grow while there is still snow on the ground!

Starting Seeds Indoors

Some of the materials you will need to start your plants indoors are:

- seeds
- containers
- a potting soil mix
- a bit of time
- water

You will also need a sunny area in your house or an appropriate artificial light source.

Potting Mixes

A number of good commercial potting mixes are available or you can make your own. The following is one suggestion for a home-made potting mix (there are many other possibilities):

- one part finished compost
- one part loose garden soil or potting soil
- one part coarse sand

There are other materials, such as vermiculite, peat moss and perlite, which can also be added to the potting mix, although they are not essential. They hold water well and make the mix more light and spongy, thus providing ideal conditions for the germination of seeds. You can buy them at your local nursery and experiment with adding different amounts to the mix.

Containers

Containers used to start seeds can include a wide variety of materials - milk cartons, disposable aluminum pans, plastic cans, home-made wooden flats, commercially available plastic trays, etc. All containers used for this purpose should have holes in the bottom to allow for drainage.

Sowing and Germinating Your Seeds

For containers which have large drainage holes, spread newspaper on the bottom to prevent soil from falling through. Do not allow the paper to stick up above the top of the soil since it will draw moisture away from the soil. Fill your containers with potting soil or seed-starting mix to 1 to 1.5 cm from the top.

Before planting your seeds, thoroughly wet the soil with warm water. When planting, the spacing between seeds should be as follows:

- small seeds - 3 mm (e.g. lettuce)
- medium seeds - 1 to 1.5 cm (e.g. beets)
- large seeds - 2.5 cm (e.g. beans)

The general rule is that seeds should be planted to a depth of three times their size. Fine seeds may simply be pressed into the soil.

Following seeding, your containers should be covered to keep moisture in. You can use plastic, damp newspaper, aluminum foil, etc. Once the containers are covered, they can be set in a warm place for germination.

Vegetable seeds will germinate most rapidly at temperatures of 21 to 27°C. Your seedlings will take anywhere from three or four days up to two weeks to emerge, depending upon the type of seed and the growing conditions. During this time, the soil should be kept moist but not soggy. Air should be allowed to reach the soil surface from time to time. If mold begins to develop in the containers, the problem can usually be solved by taking the cover off and letting the soil surface dry.

Seedling Needs

As soon as the new seedlings emerge, they must be given light, either from the sun or by using artificial "grow-lights". At this time, the plants will also benefit from being placed in a cooler area of the house, in the range of 16 to 21°C during the day.

If the seeds were planted too densely, the seedlings will need to be thinned. The best way to do this is by cutting out the extra plants with scissors. Pulling the plants out of the soil can result in damage to the plants you want to save. Proper thinning eliminates competition for light, moisture and nutrients and it promotes better air circulation around the plants.

Transplanting to New Containers

Some plants, such as cucumbers, melons, pumpkins and squash, should not be moved from their original containers until they are planted in the garden. Most plants, however, will benefit from being moved into a deeper container with a richer growing medium.

Transplanting should take place when the plants have developed their first true leaves (the first leaves to emerge after germination are called "cotyledons" and are not considered true leaves, they are very different in appearance from the true or mature leaves of the plant).

Prepare containers with potting soil in the same manner described for planting seeds. You can then "prick out" the seedlings using a blunt tool which will not damage the plant roots. Remove the plants one by one and transplant them immediately. Do not let the roots dry out. You can set the seedlings in already moistened soil or moisten the soil immediately after transplanting. If your plants begin to droop after transplanting, and you have already provided them with enough water, it may help to cover them with a plastic bag or a tent of damp newspaper. Keep them out of direct sun immediately after transplanting.

From this time on, your plants will need to be watered regularly and given enough light. They may also need applications of a natural fertilizer such as diluted fish emulsion.

Hardening Off

Plants which have been started indoors need to be toughened or “hardened off” before being transplanted outdoors. To do this, you need to slow down the growth of your plants for about a week before putting them outside. Water them less, don’t fertilize them and keep them at a cooler temperature if possible. Following this week-long period, you can begin to put your seedlings outside during the day. Begin with a few hours in filtered sunlight in an area sheltered from wind. Gradually increase the amount of direct sun while watering the plants regularly. This will prepare your plants for that big step of transplanting into the garden...

Timing of Seeding and Transplanting

When you start seeds indoors, it is essential to get your timing right. If you don’t, your plants will become “leggy” and overgrown, with cramped roots. The chart provided below will help you decide when you should start your indoor seeding and when your plants can be transplanted outdoors.

Specific Seed and Plant Requirements

Each seed and plant has different requirements. It is recommended that you look up these requirements for best results. This information is often provided on seed packages or in seed catalogues and there are also a wide variety of gardening books available, many of which you will find at your local library. The internet also has many sites with useful gardening tips.

Vegetable	Start your seeds this many weeks before transplanting outdoors...	Transplant your seedlings outdoors this many weeks before or after the last frost...
Broccoli	6-8	4 weeks before up to 2-3 weeks after
Brussel Sprouts	6-8	4 weeks before up to 2-3 weeks after
Cabbage	6-8	5 weeks before up to 2-3 weeks after
Chinese Cabbage	4	4-6 weeks before
Cucumbers	2-3	1 week after
Eggplant	8-10	2-3 weeks after
Endive	4-5	4 weeks before to 2 weeks after
Garlic	4-6	2-4 weeks before to 1 week after
Lettuce	4-6	2 weeks before to 3 weeks after
Melons	2-4	4 weeks after
Okra	6-8	3-4 weeks after
Peppers	6-8	2-3 weeks after
Squash, summer	4	4 weeks after
Squash, winter	4	3-4 weeks after
Sweet Potatoes	6-8	2-3 weeks after
Tomatoes	6-10	2-3 weeks after