



SEED STARTING

Facilitator's Guide

Objective: To teach participants how to make a potting mix and how to start seedlings indoors.

Activity #1

Making the potting mix – Introduce all of the ingredients and the role they play in the fertility of the mix. In a large 30 litre bucket, gradually add each of the ingredients and stir together to make the mix. As you go, you may find that the mix is rather dry or dusty. If so, be sure to wear a mask and spritz mixture with spray bottle to moisten. Once adequately mixed, begin adding soil to the cells of the seed trays to prepare for planting. Pack the soil gently into the cells. Don't compact the soil too much, but also make sure that cell is firmly packed with potting mix.

- 1 Part Peat Moss or Mature Compost
- 1 Part Garden Loam or Top Soil
- 1 Part Clean builders sand or perlite

Activity #2

Now that your seed tray cells have been filled with potting mix. Pick a variety of seeds to plant in your tray. Before planting any seeds, place a marker in the area where you will be planting that clearly states the seed variety, the date, and the number of cells you have planted that variety in. Look on the back of the seed package for planting instructions, primarily depth. If there is no planting information, refer to a planting chart, or place the seed at a depth twice its size. This is generally a safe rule of thumb. Add approximately two seeds per cell to ensure the germination of at least one. Once they have sprouted, cull the weaker seedling to make more room for the more dominant plant. Place a thin layer of compost over the top of the cells and water generously with the spritzer. As plants sprout, discontinue spritzing and water from below – partially filling the trays to allow roots direct access to water.



Time Required:

1.5 - 2 hrs

Materials Needed:

- Seed trays
- Potting mix
- Tags and/or row markers
- Markers
- Seeds
- Spray bottle
- Planting calendar





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Info Sheet

Potting Mix

Your growing medium is the most important part of seed starting. Seedlings need lots of nutrients to ensure that they grow into healthy plants. Many professional farmers and gardeners make their own 'potting mix' – which is made up of various ingredients and amendments such as top-soil, sand, compost, peat-moss, coir, lime, greensand, bone-meal and/or bloodmeal. Others recommend vermiculite and/or perlite to improve porosity and drainage.

You can also buy potting mixes from your garden centre which include many of these ingredients. Be sure to read the ingredients list on the potting soil to make sure that no chemical fertilizers have been added. The ingredients listed above provide more than enough food for plants, making chemicals unnecessary. If a potting mix does not have chemical fertilizers on the ingredients list – it most likely is organic. If you wish to buy certified organic potting mix, expect to pay more.

When to Plant

When to plant depends on what you're planting. Some warm weather plants (tomatoes, peppers, eggplants) must be started indoors, while more cold hearty plants (radish, beets, carrots) can just be direct seeded outdoors. To the right, we have provided a few common examples of plants that are started indoors, and plants that are started outdoors. Some plants can be started indoors or outdoors. Gardeners will start these plants indoors to give them a head start, especially if they have a shorter than average growing season. Refer to a [**growing calendar**](#) in the resource manual for more information.



Start Indoors

Tomatoes, Peppers, Eggplant, Peppers, Cucumber, Broccoli, Cauliflower, Cabbage, Head Lettuce, Zucchini, Squash

Start Outdoors

Beets, Carrots, Beans, Peas, Turnip, Radish, Leaf lettuce, Pak Choi, Bok Choi, Zucchini, Squash

Where to Buy Seeds

It is best to purchase seeds that are organic, grown locally, and adapted to the specific climate of the region. Two great sources for seeds in Nova Scotia are Halifax Seed: <https://halifaxseed.ca/> and Annapolis Seeds: <http://www.annapolisseeds.com/>. Both companies have online catalogues with lots of great seeds to choose from.

How to Plant Seeds

In your planting trays place 1-3 seeds per cell. This ensures that if one seed does not germinate that another will. Once seeds emerge, pick the most vigorous of the bunch and remove the others. Be ruthless, crowding will damage your plants. For each vegetable type you plant, make sure to clearly label that section of the tray, including the name of the varietal, and the date you planted. This information is helpful in identifying your plants later on, and to monitor their success as they grow.

Caring for Seedlings

Seedlings require the same basic elements that regular plants do: light, water and nutrients. Without adequate light, whether natural or from a grow light, plants will become spindly and weak, resulting in poor yields or outright failure. Seedlings should have a minimum of 6-8hrs of light per-day, and a maximum of 16hrs.

Spritz seedlings until they germinate, and then water from below to prevent mold and damage to seedlings. Don't over water. Soil texture should be that of a rung out sponge. Your soil mix should provide enough nutrients for you plants to prosper, but if they seem to be struggling, you can top-dress with organic fertilizer or compost.

Transplanting

For most seedlings started indoors, they are transplanted out once the risk of frost has passed. This depends on your climate, but in Nova Scotia this is late May to early June. However, before transplanting out-doors, warm weather plants often have to be **potted up** and **hardened off**. Potting up refers to transferring the semi-mature seedling from its smaller planting cell, to a larger pot to allow more nutrients and space to grow. Hardening off is the process of preparing the plant for the harsh transition from indoors to outdoors. This begins by placing a fan on them to strengthen their stems, to eventually placing them outdoors for a few hours a day to toughen them up for the harsh realities of the outside world.

