How to Start Seeds

Part 1: Make a potting mix

Our potting mix contains 3 ingredients – perlite, peat moss, and compost. Make sure you have enough potting mix on hand before starting seeds. For small scale projects, you can purchase bagged ‘seed starting’ mix.

- Perlite – lightweight mineral substitute for sand to increase porosity
- Peat moss – sterile lightweight material that retains moisture well. Peat moss is not grown sustainably, coconut coir may be a good alternative
- Compost – aids in soil structure, holds trace nutrients

Some gardeners prefer to use a ‘sterile’ mix to prevent disease and pathogens in seedlings. This would not include compost, which is not sterile. Germinating seeds and young seedlings do not need much nutrients – seeds contain enough nutrients for the first few weeks of the plant’s life.

How to: Peat moss is hydrophobic out of the bag, so be sure to add peat moss to the wheelbarrow first and slowly moisten and mix thoroughly before adding other ingredients. Be sure to mix all the way to the bottom of the wheelbarrow, where water may accumulate.

- ½ bag of peat moss (1 – 2 parts)
- 1 - 5 gal bucket of compost (1 part)
- 1 bag of perlite (1 part)

Add water until mix feels like a wrung-out sponge – wet but not dripping.

Part 2: Plant and Grow!

Choose the appropriate size tray for your seeds. Most seed packets have some information regarding size of container as well as how many seeds to sow per cell.
• The size of the seed is a good indicator of the size of the seedling, and therefore of the size of the tray you should use. Always place your flat or containers into a bottom tray to hold it flat.

• In general, we want to sow 20% more seeds than we need to plant to account for loss. Using the spacing that we will plant out in, calculate how many plants you will need for the space and add an additional 20% to reach the number of cells you should sow.
  - Ex: We want to sow row E4, a 50-foot-long row, with kale. We will have two rows of staggered plants with 12 inches between plants in each row. So – 50 feet x 2 rows = 100 feet. 100 feet / 1 foot spacing = 100 plants. Add 20% = 120 cells.

1. Fill your container - use your hands to loosely fill your tray to the top, then gently drop the tray onto a table to settle the soil. Loosely refill if necessary.

2. Label your containers with the crop, variety, date on the seed packet, and date sown.

   Sowing date  
   Crop/Variety  
   Seed Co + seed year

   Use the sowing date to keep track of germination and resow as soon as possible if necessary.

5. Sow your seeds! Most seeds should be sown twice as deep as the seed diameter. Some very small flower seeds require light to germinate and should not be covered at all. Be sure to read the seed packet!

6. Watering: The first watering should be thorough enough for water to be dripping from the bottom of the tray. After the initial watering, water trays when the top of the soil appears dry or when trays feel lightweight when lifted (an indication your soil is dry).

7. Choose a flat, clear spot in the greenhouse to keep your new trays.

Troubleshooting

**Problem:** Poor germination

**Solution:** Check the ‘days to germination’ and the germination rate on the seed packet, some seeds are slower than others. If you do have poor germination, soil might be too cold or wet, or too dry. Poor germination is also more likely to occur with older seeds or seeds that were not stored properly. Re-sow!

**Problem:** “Damping off” – Seedlings that germinate and then fall over from the soil line.

**Solution:** This is a fungal issue. The seedlings will not bounce back or re-sprout. To avoid damping off, make sure the soil surface is drying off between watering and increase
circulation in the area. **Bleach to sanitize all containers where damping off is observed (1:9 bleach:water)** Re-sow!

*Problem:* Algae or mold growth on the surface of the soil.
Solution: Green or white growth on the surface of the soil is fine but indicates that the soil is too wet. Again, let soil surface dry between watering and increase circulation in the area. You can also gently scrape the surface of the soil to avoid a hardpan.

*Problem:* “Leggy” tall seedlings with weak stems
Solution: This occurs when plants are reaching for sun or space. If using grow lights, move the lights to just a few inches from the top of the seedlings. If seedlings are crowded, it may be time to thin them. Leggy seedlings can grow into healthy plants if you respond quickly!