



How-To: **STARTING SEEDS**

Starting seeds at home can be a fun and rewarding activity. With some equipment and regular care, you can grow unique varieties of plants for your own garden and to share. Choosing good containers and soil, along with managing heat, light, and water help ensure seed-starting success.



AN EDIBLE SCHOOLYARD
PITTSBURGH STUDENT PLANTS
SEEDS IN A NEWSPAPER POT



RED MUSTARD SPROUTS IN
PLASTIC CELL TRAYS AT THE
FRICK GREENHOUSE



DILL SEEDLINGS GROW IN
BIODEGRADABLE POTS AT THE
FRICK GREENHOUSE

HOW TO CHOOSE CONTAINERS

Consider what types of seedlings you will be growing. Seeds of small crops like onions, leeks, and cilantro, can be broadcast over a large container. Seeds of crops that will eventually be planted with significant space around each plant, like tomatoes, peppers, and squash, grow better with one or two seeds placed in each container (these crops should be thinned to one per container once they sprout).

Seeds will grow in just about any container, but some make better seed-starting environments than others. We recommend containers that are fairly shallow; 2-3" deep works well. Containers can be made from various materials, like plastic, wood, or paper. As long as the container is permeable to water or has drainage holes, it will work. Here's a list of some good options:

- Yogurt containers, cut down to 2-3" tall, with drainage holes poked in the bottom
- Plastic cell packs available commercially (these can be reused – clean well with a 3:1 water to vinegar mix)
- Terra cotta pots
- Shallow boxes made from cedar or other wood.
- Commercially available peat or other biodegradable pots.
- A small wooden device called the “Paper Pot Maker” can help you create small pots from newspaper.

Porous containers, like terra cotta and peat pots, will dry out quickly and require more watering. A helpful accessory for any container you choose is a solid tray to catch soil, spills, and water that drains out of the containers.

HOW TO CHOOSE SOIL

For seed starting, a sterile, soil-less potting mix is best. Germinating seeds and tiny seedlings are particularly susceptible to soil-borne disease, so new, sterile potting mix is important. The texture of the potting mix also matters, as tiny roots need air pockets in order to grow. A compost- or peat-based mix stays fluffy throughout the repeated watering that small seedlings need, while true soil becomes compacted.

SETTING UP SUPPLEMENTAL LIGHTING

Seedlings typically need more than the light coming through a window. Supplemental lighting helps to ensure strong, sturdy growth that will help the seedlings thrive before and after they reach the garden. Supplemental lighting also allows



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SHOP LIGHTS, HUNG JUST ABOVE THESE TOMATO PLANTS, PROVIDE ENOUGH LIGHT FOR OPTIMAL GROWTH



THIS CUSTOM-BUILT SEEDLING STARTING AREA PROVIDES ENOUGH SPACE, LIGHT, AND HEAT TO GROW ENOUGH SEEDLINGS FOR A SMALL FARM

USE A LIGHT HAND WHEN SEEDING! IF SEEDLINGS SPROUT TOO CLOSE TOGETHER, THIN OUT EXTRAS OR CAREFULLY REPOT THEM.

plants to be grown in dark areas like basements or heated garages. Here are the two lighting options that work well:

Shop lights

These inexpensive fixtures offer the full spectrum of light that plants need, as long as they are outfitted with one “warm” and one “cool” light bulb. For optimal growth, the plants need to be 1-2 inches below the light bulbs. Shop lights work best if they are suspended with chains and s-hooks, or another system that allows the lights to be easily lowered, and then raised, as the plants grow.

Grow lights

These are manufactured for the purpose of growing plants. They come in all shapes and sizes, as well as in different types, including fluorescent and LED. These lights can be purchased in kits or separately, from gardener supply or home improvement stores.

WILL YOUR SEEDLINGS NEED HEAT?

Each type of seed has an optimum temperature for germination. Warm-season crops, like tomatoes, zucchini, and basil, require more heat to germinate than cool-season crops like lettuce, spinach, and radishes. Look in seed catalogs to find germination temperatures for each type of crop.

Some sources of heat may be readily available at home. For instance, the top of a refrigerator or the area adjacent to a radiator may stay consistently warm. Most seeds do not need light to germinate, so containers can be placed on a heat source and covered. Check daily and water as needed. As soon as the seeds begin to germinate, place them directly under a light source.

An electric heat mat can be helpful to hold soil at the temperature the seeds need to germinate. Place the mat under the seedling tray, under the light source, so the seedlings can just be uncovered when they germinate, rather than moved.

HOW TO WATER YOUNG SEEDLINGS

When seeding, start with thoroughly damp soil: add a little water and mix well until the soil feels like a wrung-out sponge. After seeds are planted, use a sprayer (from a hardware or home improvement store) to mist as needed to keep the soil damp. Cover the seeds with plastic sheeting or a similar material to keep them evenly warm and damp until germination. Be sure to check covered seedlings daily, and uncover them at the first sign of germination, so the seedlings can get good access to light and grow straight and strong.