



Seed Starting

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Master Gardeners frequently are asked “Instead of buying seedlings of tomato, pepper, eggplant, etc., at the store, how can I start them at home from seeds?” Here are the highlights of seed starting.



Seed Starting Supplies

1) Gather supplies ahead of time. Items include:

Seeds. They can be purchased in catalogs or at nursery centers in the big box stores.

Potting soil. The easiest type to use is one of the commercial soilless mixes that contain peat moss, perlite, vermiculite, and usually some fertilizer. “Seed starting” mix is finer in texture than regular potting soil. (Technically, regular potting soil can be used but is less desirable since the seeds must work a little harder to germinate.) **Do not use soil from the garden** unless you pasteurize it. It can contain insects, weed seeds, or disease organisms that could damage or kill the young transplants.

Containers. There are many types you can choose from such as plastic or peat moss pots, trays with inserts, peat pellets, etc. The important point is the **containers must have drain holes**. Table 2 on Rutgers Fact Sheet 787, [“Recommendations for Starting Seeds Indoors”](#), describes a few types of containers available to the home

gardener. Also if you used containers in the past, sterilize them with a 10% bleach solution prior to reusing. They can harbor pathogens from previous years.





Container labels. Various ways include using tags, a pencil or water resistant marker.

Light Source. Either a very sunny windowsill or grow lights.

Optional: **Gloves** to keep hands clean, a **tool to poke holes** in mix for seeds, and **newspaper or plastic** to protect table and aid in clean up.

Watch Master Gardener, Tricia D., as she explains to student sthe various [supplies needed for seed starting](#) on this short video.

2) Determine when you should start your seedlings. DO NOT start them too early! Look at Table 3 on [Rutgers Fact Sheet 787](#). This will display the number of weeks to start the seeds indoors prior to last frost date (typically May 15th in this county) for various common vegetables.

3) Plant one to two seeds per container based on the recommended depth on the seed packet. Planting depths for common vegetables can again be found on [Table 3](#). Be sure to label your containers and flats to help remember what you have planted. After planting, the container should be bottom watered by putting it in a larger shallow container with water and left there until the surface of the potting mix becomes moist. (An alternative is to pre-moisten the potting soil prior to planting as shown in the second video about planting seeds below.) Once the top of the mix is moist, remove from the pan.

Master Gardener, Tricia D., [demonstrates the steps to planting seeds in this video](#).

4) Germination can be aided by sealing the containers in clear plastic until the seeds sprout and maintaining moderately high soil temperatures. This can be accomplished by either putting the container in a sealed plastic bag or by placing a plastic dome over it, which is something that comes with many seed starting tray kits. Place the containers in a warm place. Table 3, again from [Rutgers Fact Sheet FS787](#), also gives optimum soil temperatures at this stage for various vegetables.

5) Once seeds have sprouted, remove the plastic covering and give the seedlings as much sun as possible either under grow lights (~ 2" to 4" below the lights or per the grow light manufacturer's directions) or place them on a sunny windowsill. Room temperatures should be around 60-70 degrees F. Continue to bottom water when the top of the soil mix is dry to the touch. Overwatering can be just as detrimental as underwatering.

Watch Master Gardener Tricia D.'s [final seed starting video](#) demonstrating what to do after you have planted your seeds to promote germination.

An example of a light rack used for seed starting

