**Seed Starting**

Here are the basics of what you'll need to get your garden seeds started:

**Containers** - Either purchased pots or flats or containers you've saved, like egg cartons and yogurt cups. Used pots should be cleaned and disinfected by soaking in 1 part bleach to 10 parts water.

 **Potting Mix** - Seeds do best in a soilless mix where there are fewer inherent problems than with garden soil.

Loosen and dampen the potting mix before you put it into your seed starting containers. It is easier to get a uniform level of moisture if you do it this way.

Dampen the mix to the consistency of a rung-out sponge. It should be wet, but not dripping, with any dry lumps.

There are many good potting mixes available. **Using a soilless potting mix rather than outdoor soil is preferable** because potting mixes don't readily compact, don't contain weed seeds and don't have disease spores and other possible problems.

•Use the pre-dampened potting mix to fill your seed starting containers.

•Don't pack the potting mix into the container.

•Fill about 2/3s full and tap the container on the table top, to help the potting mix settle.

•Gently firm with your hand or a small board.

**Seeds** - Your choice - Start planting

* Once you have your containers prepared, you can begin planting the seeds.
* •Make sure you read the seed package for special instructions. Some seeds may require a period of pre-chilling or soaking.
* •Small seeds can be sprinkled on top of the potting mix. Larger seeds can be counted out and planted individually.
* Use at least 3 seeds per container, since not all seeds will germinate and not all that do germinate will survive. You can thin extras later.

Labels/markers - Trust me, you won't remember what's what

**Finishing Touches**

•Cover the seeds with more dampened potting mix and then gently firm again.

Re-check your seed packet for information on how much potting mix should go on top of the seeds.

Generally, the smaller the seed, the less you need to cover them.

•There are a few seeds, like lettuce, that require light to germinate and should barely be covered with potting mix.

Water - And Water Again:

Although the potting mix was pre-dampened, it is still a good idea to sprinkle some additional water on top of the newly planted seed. This insures that the top layer of mix won't dry out and it also helps to firm the potting mix and insure good contact between the seed the mix.

 Plastic Bags or Covers - These will trap warmth and humidity where the seeds need it

Greenhouse Effect: Your seeds are now ready to be covered loosely with some type of plastic. This will help hold in both heat and moisture. You can place the whole container into a plastic bag or simply lay a sheet of plastic over the container. If you have special seed starting trays with plastic covers, use those.

**Heat**: Move your container to a warm, draft free spot and check it daily.

Most seeds germinate best when the temperature is between 65 and 70 degrees F. The top of a refrigerator is an ideal spot or you could consider purchasing heating mats specially made for germinating seed.

Heating mats go under the potting containers and heat the soil from below. You will usually need to water more frequently when using heating mats. Caution: Only use heating mats certified for seed starting use.

**Light and Air:**

In general, seeds will not need light until they emerge. They will need air circulation under the plastic or you will be encouraging mold.

**Signs of Life**:

Remove the plastic as soon as you see a seedling emerging and move the plant into indirect light. Be sure the potting mix stays moist, but not wet.

**First Signs of Growth:** Once your seedlings begin poking through the soil, they will start to straighten up and unfurl. What look like two leaves will appear. These are actually leaf-like structures, called cotyledons, that are part of the seed and serve as food sources until true leaves are formed and the plant is capable of photosynthesis. At this point you should move your seedlings under a light source.

**Move into the Light:**

Your seedlings will need between 12-18 hours of light each day. This may seem extreme, but artificial light and even the low rays of the winter sun are not as intense as full summer sun. The best way to insure regular long doses of light is to attach your florescent or high intensity plant lights to an automatic timer

**True Leaves**: As the seedling grows, the cotyledons will wither and what are called the first "true" leaves will form. This is when your seedling begins actively photosynthesizing. Since it is growing in a soilless mix, you will need to give it some supplemental feeding at this point. Use a balanced fertilizer or one high in nitrogen and potassium, to encourage good roots and healthy growth.

**Potting up:** Seedlings can remain in their original containers until you are ready to plant them in their permanent spots. However it is common to move the seedlings into a larger pot once several sets of leaves have formed and the seedling are a couple of inches tall. This is called "potting up" and it allows the roots more room to develop. Three to four inch pots are good sizes to pot up to, allowing plenty of room for root growth.

**Thinning:** If more than one seedling is growing in the same pot, either separate the seedlings into individual pots or cut off all but the strongest seedling. Don't try to pull out the extra seedlings, since this might hurt the roots of the seedling you are keeping

By the time the temperature warms outside, you should have stocky, healthy young plants. Before moving them out into the garden, take a week or two to gradually introduce them to their new growing conditions. This is called hardening off. It gives the plants a chance to acclimate to sunlight, drying winds and climate changes.

•Move the plants to a shady spot for increasing amounts of time, several days in a row.

•Bring them in or cover them if the temperature looks like it will dip.

•Gradually increase the amount of time they spend outside and the amount of sunlight they receive until you see that they are growing strong and appear ready to go out on their own.

•Water your seedlings well before and after transplanting and try not to transplant during the hottest, sunniest part of the day.

***About Home.com: How to Successfully Start Seed Indoors***



**Growing Seeds Indoors – Common Mistakes By Kerry Michaels Container Gardening Expert**

**Not Enough Light:** Seedlings need a lot of light. No matter what anyone tells you, chances are that you don’t have enough natural light in your house to grow robust seedlings. Even a South facing window usually won't do. However, you can use artificial light. Either get some grow lights, developed specifically for plants, or for a more economical solution, simply get some large fluorescent shop lights and put in one warm bulb and one cool. Hang the lights from chains so that you can raise them up as your seedlings grow. Keep the lights as close to the seedlings as possible without touching (2 to 3 inches). After your seedlings appear, you’ll want to keep the lights on for 12 to 16 hours a day. To make this easier, you can easily hook up a timer to turn your lights on and off automatically.

Too Much or Too Little Water: Give your seedlings too much or too little water - either way they are toast. This is perhaps the most challenging part of growing plants from seeds. Because seedlings are so delicate, there is very little room for error when it comes to watering. You want to keep your sterile, seed starting medium damp, but not wet.

 There are a couple of things you can do to maximize the chances of getting it right.

•Cover your container with plastic until seeds germinate

•Water from the bottom. By letting the plants soak up water through holes in their pots, there is less chance of over watering

•Check your plants at least once a day

•Buy a self-watering seed starting system

•Make a free, self-watering seed starter

**Starting Too Soon:** When I asked my friend, Chas Gill, who runs the Kennebec Flower Farm, what he thought were the biggest mistakes people make when starting seeds, he said, "they start their seeds too early."

Lots of plants don’t like the cold and exposing them to it will just stress them out and stressed out plants are more susceptible to pests and disease. Most plants are ready to go outside four to six weeks after you start the seeds.

**Planting Too Deep:** Seeds are finicky when it comes to how deep they like to be planted. Some seeds need complete darkness to germinate and some like some light. This information is usually on the seed packet. If there isn’t any information, the rule of thumb is to plant seeds twice or three times as deep as they are wide. This can be a challenge to figure out, but if you're not sure, err on the shallow side - don't plant your seeds in too deep.

For seeds that need light to germinate, you'll want to make sure that they are in contact with your seed starting medium, but not covered. To do this, first press the medium gently down to make a firm surface. Then place your seed on top of your medium and gently push down, making sure the seed is still exposed.

**Tough Love:** There is no benefit in a tough love approach to seedlings. If you try it, they just up and die or become weak and then fail to thrive. When plants are young, even the most stalwart need a huge amount of coddling and attention.

When your seedlings are ready to go outside, after all of this babying, the last thing you want to do is shove them out the door and into the harsh world without significant preparation. The process is simple, though it can be time consuming and a bit of a logistical nightmare. It is called hardening off or, I call it boot camp for plants.

The idea is to expose your plants to the elements gradually. Practically, this means that you put your seedlings outside for more time every day over the course of 6 to ten days, depending on your patience and the temperatures and the fragility of your seedlings.

Getting Seduced: It certainly is easy to swoon over the gorgeous pictures and glowing descriptions found in the tons of seed catalogs that come flying through ether and into our mailboxes every winter. I have gotten serious crushes on too many plants to name.

This often gets you into trouble, causing you to buy many more seeds than you can start, much less nurture into adulthood. In fact, every year I bite off more than I can reasonably chew in the seed department and regret it. It is best,, particularly if you are a beginner, that starting modestly is the way to go. You can always do more direct planting in your containers when it gets warmer.

**Too Cool:** For seeds to germinate, most must be kept warm 65 to 75 °F. A favorite place to do this is on top of the refrigerator. There are also special "seedling mats" that you can buy to put under your seeds. You can also use a small heater put on a timer placed next to your seedlings. You will only need to worry about this until the seeds sprout. After that most can tolerate fluctuating temperatures (withing reason). Also, and whatever type of light you use, natural or artificial should produce enough heat to keep them happy.

**Labeling Issues:** Every year I am determined to do clear, organized labeling of my seeds, but I often find things growing and don’t quite remember what they are or when exactly I planted them. I have had labels get lost or moved or they have become illegible from being watered. So here’s my advice. Get popsicle sticks and write the name of the seeds and the day you planted them in permanent ink. Stick it into the soil next to the seeds you’ve planted or label by row.

When it comes to plant labeling, Sharpies are your friends.

**Biggest Mistake:** Starting seeds can be a real pain. It takes dedication, attention and time. That said you can’t beat eating a tomato that you have nurtured from day one. I would say that the biggest mistake in starting seeds would be to give up.