

## Starting summer vegetables from seed

Garden centers will have lots of seedlings of tomatoes, peppers, and eggplant at the proper planting time. But there may be unusual varieties you wish to grow. Starting seeds indoors can be a fun project.

But the indoor environment is not ideal for vegetable plants.

- Low light and lack of air movement cause plants to “stretch” and become leggy very quickly, and encourage attack by seedling diseases.
- If you start your seeds too far ahead of outdoor-planting weather, they become very tall and undergo transplant shock when you finally move them out.

Given these limitations, the following guidelines will help you succeed:

### When to plant

- Start tomato seeds 6 – 8 weeks ahead of your outdoor planting time. We plant outside in late April or May here. Tomato seedlings sprout in about a week and grow very quickly.
- Start pepper and eggplant seeds 10 – 12 weeks ahead of your outdoor planting time. We plant them outside in May here. These seeds sprout in 1 – 2 weeks and grow rather slowly.

### Planting by the calendar?

Tomatoes grow faster, but can be planted out earlier. Peppers and eggplant grow slower, and require warmer soil outdoors. So

February is the ideal month to start all of them here. Just be aware that you will hold your pepper and eggplant seedlings a few weeks longer than your tomatoes before putting them in the ground. March is ok; April is too late from seed.

### What to use

- Start seeds in a soil mix that is naturally sterile. Seedling mixes usually contain materials such as peat moss, sand, perlite, vermiculite, or pumice. These are coarse, low-nutrient media that provide little sustenance for fungus and bacteria.
- The mixes should not contain garden soil, compost, wood shavings, or fertilizer.

No fertilizer? Not yet. Seeds don't need food while they are sprouting: the cotyledons contain all the nutrients the young seedling requires. Fertilizer in the soil mix encourages seedling diseases.

Any small pot or tray will work fine as long as it has drain holes. Small nursery pots, recycled nursery 6-packs, or even yogurt containers or small milk cartons are all fine. Wash them with soap and warm water. If you have used them for seedlings before, a quick dip in a bleach solution helps prevent fungus (one glug of bleach in a gallon or so of water).

### How to plant

- Don't plant too many seeds close together. Seedling fungus moves rapidly from one soft stem to another.
- Plant 2 – 3 seeds in each single pot or cell.

- Label your pots!

The seedling trays don't need to be covered, although that will speed germination by keeping temperatures and humidity a bit higher. Remove any cover as soon as you see the seedlings.

### Where to grow them

Place the seed pots in the brightest natural light in your house. A window facing south is ideal; east is second-best. You can put them under fluorescent lights or grow lights, but those light sources need to be very close (12" or so) to the plants.

### Seedling care

- Water gently. The stream from a hose or water can is likely to wash the seedlings out. A small spray bottle is more effective.
- As soon as they sprout, move the seedlings outside during the day and back in at night. This is very important! Air movement causes plants to move and release an internal hormone that thickens the stem. Natural sunlight is better for plant growth than indoor light. But the night temperatures are still too cold for the plants. So the daily shuttle in and out, hassle that it may be, is the key to getting sturdy seedlings.

Interestingly, it is *vibration* of the plants that triggers the hormone which thickens the stems. So gentle air movement indoors, such as from a small fan, or some form of vibration of the pots, might do the trick. Or gently shake the seedling tray every time you walk by.

Once they have a set of true leaves (the set that forms *second*, after the cotyledon leaves), they will want to be fed. Regular house plant fertilizer at half strength every 2<sup>nd</sup> or 3<sup>rd</sup> watering will work. One popular brand has you fertilize every time you water, which is also fine. Organic fertilizer such as fish emulsion is fine, but odoriferous (your cats will appreciate it).

If the seedlings are growing fast and outdoor planting is still a few weeks away, you may wish to transplant them into larger pots. For this next stage, any good potting soil will do. They can be left outside on warmer nights without harm.

### **When to plant in the ground**

Plant tomatoes outside when the night temperatures are consistently 50 – 55 F, or the soil temperature measured with a soil thermometer is 60 F. Plant peppers and eggplants outside when the night temperatures are consistently 55 – 60 F, or the soil temperature is 70 F.

### **Other summer vegetables**

Most of the other vegetables we grow in warm weather sprout and grow much more quickly from seed, as does the popular herb basil.

These large-seeded types can be planted directly in warm, loose soil:

- Cucumbers
- Melons
- Pumpkins
- Squash
- Beans
- Okra
- Sunflowers

If you want to start them in pots, plant 2 – 3 seeds each in small individual pots. They will sprout in just a few days and be ready to plant out in a couple of weeks. Don't keep them in pots too long or they will be stunted.

Vegetables grown for their roots should be planted directly where they are to grow, as transplanting damages or stunts the roots:

- Beets
- Carrots
- Radishes

Potatoes are grown from roots (tubers) which are cut, left to sit for a day or so, and then planted directly in the ground in warm, loose soil.

### **What about basil?**

Basil has small seed but is very easy to grow, sprouting in just a few days. Sprinkle the seed onto soil in a small pot and gently press it into the soil, then cover with a very fine layer of soil. Once the seedlings are an inch or so tall, you can plant them out in the ground.

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