



Starting Tomato Seeds

by Rose Certini, Master Gardener

When the calendar gets to February, tomato aficionados start reaching for seed packets to give plants a head-start on the growing season.

The day and nighttime temperatures are just right for planting tomatoes indoors in a sunny location such as a window sill that is protected from late frosts and unpredictable weather. Tomatoes are about the easiest vegetables to plant and kids love to watch them grow. Getting seeds to germinate makes for an easy lesson plan in plant growth and sustainable gardening. As a plus, you get to eat the fruit of your experiment in a few months.

You can use almost anything as a container for soil to incubate the sleeping seeds. Recycled paper cups, yogurt containers or cut-off milk cartons will do if you punch holes in the bottom for drainage. Or, you can buy peat pellets or other seed-growing products. Using recycled plastic six-pack containers from previous flower or vegetable plant purchases is okay - just remember to wash out the old soil and disinfect containers in a solution of one part chlorine bleach to nine parts water.

The kind of soil to fill the containers with is up to some debate and comes down to personal preference. The easiest thing to do is buy seed starting mix from a nursery or home improvement store. Or, you can mix your own. The internet is full of suggestions for soil mixes with varying formulas for mixing peat moss, compost, perlite and/or vermiculite. You could go with something as simple as 60 percent peat moss and 40 percent perlite or the *California Master Gardener's Handbook* suggestion of one-third sterilized sand, one-third perlite or vermiculite and one-third peat moss. Whatever you settle on, make sure you don't include garden soil which is too heavy for proper drainage and could be riddled with plant diseases, weeds or insects.

Pre-moisten the soil slightly with water and fill containers to about $\frac{3}{4}$ inch from the top, then tamp the soil down with your fingers to get rid of air pockets. Plant tomato seeds about a quarter-inch deep, then water.



After establishing roots, tomato seedlings shed the outer coating of the seed.

Keep soil lightly watered throughout the germination period, but too much water depletes oxygen and can cause the seeds to rot. Tomatoes need a minimum night temperature of 50 degrees to germinate, which should be easy to achieve this time of year inside a house. The seedlings should be visible in about a week to 10 days.

After germination, move the plants to a sunny location, such as a south-facing window and water with a half-strength soluble fertilizer. Let the soil dry a bit between waterings to help prevent damping off, a fungal disease that results in a seedling's rapid death.

If you are inclined to go an extra step, supplement the February and early March sun with three or four hours of artificial light at dusk to grow robust plants that are not thin and spindly. The goal is to have the plants receive 16 hours of light per day. This can be done by hanging a couple of 40-watt fluorescent bulbs 6 inches above the plants, attached to a timer. Move the fixture up as the seedlings get taller.

It should be safe to take transplants outdoors after March 15, the "theoretical" last potential date for frost in the Central Valley. Seedlings need to be prepared for the transition through a week-long process of taking them outside to encounter cooler temperatures. The time plants spend outdoors is gradually increased so that by the end of a week they are out 24 hours a day. The hardest part of the whole tomato growing process may be deciding which of the hundreds of tomato varieties to buy from the local nursery or internet supplier - hybrid or heirloom.

Hybrids are bred to be resistant to common diseases, Verticillium (V) and Fusarium (F) wilts. Look for varieties that list a VF after the cultivar name. VFN means the plant will be additionally resistant to nematodes and VFNT adds protection from tobacco mosaic virus. Remember though that with hybrids you can't save seed at the end of summer because offspring will not grow true to the parent plant.

You can try the riskier heirloom cultivars that may not necessarily be disease resistant, but on the plus side the seed can be saved producing the same fruit generation after generation.

Whichever way you go – hybrid or heirloom – you'll be fascinated watching little seedlings reach for the sky and later on enjoy home-grown tomatoes plucked right from the vine.

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