

## Saving Tomato Seeds—Step-by-Step

by Merry Youle

Tomatoes take first place! More people save tomato seeds than seeds for any other crop. Why? It's easy, it's fun, and you can have your tomato seeds and eat (most of) your tomato, too. Still, why bother, when there are more varieties available in the seed catalogs than you will ever be able to grow? Well, there are even more varieties which are not available commercially, and one of those just might become your favorite. Besides, every year many varieties are dropped from the catalogs. Those who save their own tomato seeds will be saved from disappointment.



Most modern tomatoes self-pollinate and rarely cross with nearby varieties. Each flower is perfect, i.e., contains both male and female parts. The pollen-producing anthers are fused into a cone which usually completely encloses the female structures. Self-pollination takes place inside this enclosure. But there are excep-

tions—varieties in which the female stigma protrudes through the anther cone. This is often the case in the small "wild" tomatoes that appear uninvited in your garden, in their popular cousins—the tiny currant tomatoes, and also in some of the potato-leaf varieties. There are other exceptions, depending on local conditions. A seedsaver on the Mainland tells me that his tomatoes often cross due to very determined bees who force their way into the blossoms.

This procedure for saving tomato seeds can be used for other "wet seeds" such as peppers, eggplant, potatoes, poha, squash, and melons. However, fermentation (Steps 3 and 4 below) is needed only for tomatoes. For the others, the seeds can be immediately rinsed and cleaned.

1. As always, save seed from only healthy, robust plants. Select top quality, *mature* fruits.
2. You will need a couple of large tomatoes of the same variety, more for small-fruited varieties. Cut them in half or in sections. Use a small spoon to scoop out the pulp containing the seeds from the hollows in the fruit. Collect the pulp and juice in a small glass or similar container. Continue until the collected pulp is at least an inch deep in the glass. If you don't have enough tomatoes to provide that much pulp, you can add a *little* water to make up the needed volume. (Never add more than an equal volume of water or your tomato seeds may sprout rather than ferment.)
3. Place a loose cover over the glass, such as a jar lid. Set the glass aside, out of the way, and let it ferment for a few days at room temperature. The cover helps keep the pulp from drying out. It also helps keeps the strong odor that often develops from getting out. This fermentation is important for tomatoes as it kills many seed-borne diseases and removes the gel, leaving clean, easily-dried seed. The gel contains chemicals that inhibit germination, which is why tomato seeds don't sprout inside the tomato even though they have plenty of moisture there.

4. Check the seeds daily. A cap of mold will form on the surface. When the fermentation has proceeded long enough, that cap will be firm enough to lift off in one piece with a fork. Do so, and toss it in your compost.

5. Add more water to the fermented mixture and swirl it around. The now naked seeds should collect on the bottom. By carefully decanting much of the liquid, you can get rid of most of the debris. Immature seeds and seeds with pulp clinging to them also float and can be removed by decanting. Repeat as often as necessary until you have removed all the junk that floats.

6. Add more water once again and this time dump everything into a fine strainer. Pick out any large, heavy chunks of tomato mixed in with the seeds. Run the seeds in the strainer under a stream of water. What is left should be nearly 100% clean seeds.

7. Dump the seeds onto a flat plate, spread them out well, and set them aside to dry in a safe place. They need to dry fairly quickly (so they don't sprout) but don't place them in direct sunlight or in the oven. When thoroughly dried, package and label them for storage. Tomato seeds can remain viable for 4-10 years depending on the variety and storage conditions.

Be sure to save more seeds than you think you'll need. Since so many people enjoy growing tomatoes (despite the fruit flies), tomato seeds are always welcome at the annual seed exchange.

## Seed Savers Are Plant Breeders

by Merry Youle

The basic strategy of plant breeding is simple. You introduce genetic variation into a variety and then you select offspring with the traits that you want. Typi-