



If you decide to save open-pollinated vegetable seeds, follow some simple guidelines to make sure they reproduce true to the parent plants. It's fun, it's easy, and it's free.

CAROL BARANY PHOTO

Pumpkinis? You Might Want to Avoid Them

But if you want to play with genes, throw caution to the wind pollens.

by Carol Barany for Yakima Valley Master Gardeners

Six months ago, Master Gardeners planted thousands of vegetable seeds in preparation for their May plant sale. Tucking those tiny seeds into soil, it's easy to wonder how anything can come from something so small. But all my years of gardening have cultivated a great faith in seeds, and once again, I haven't been disappointed.

In gardens throughout the Valley, September is a month-long vegetable extravaganza. Tomatoes and beans have outgrown seven-foot-tall supports. Miles of cucumber, melon, and pumpkin vines have raced way beyond the farthest reaches of the garden. Each time I cut open a vegetable, I meet a fresh batch of new seeds, fueling my optimism and great expectations for the next gardening season.

Saving seeds for planting next year is a tale as old as time, but a quick Botany 101 lesson can't hurt. Open-pollinated plants (most heirlooms and older varieties) are pollinated by the wind or insects to set fruit and produce seeds which come true.

If you plant 'Oregon Homestead' squash, and you're sure there was no cross-pollination with other plants in your garden, the seeds you save from this year's crop will produce 'Oregon Homestead' squash next year, and not something else.

Hybrids are another story. Created by careful and deliberate cross-pollination of two different varieties to attain certain desired characteristics, seeds from hybrids rarely produce plants anything like their parents, regardless of how they're grown, and are usually not saved.

If cross-pollination between two varieties of the same open-pollinated vegetable occurs, you'll likely get a seed that's very different from its parent. To avoid the possibility for wind-pollinated crops, there must be no other varieties within a mile releasing pollen at the same time. For insect pollinated crops, there should be $\frac{1}{4}$ mile separating varieties. Commercial seed growers must abide by these guidelines, while most home gardeners simply take their chances.

Vegetables that normally cross-pollinate are the brassicas (broccoli, cabbage, mustards, collards, kale, kohlrabi, cauliflower, turnips, radishes, Brussels sprouts); the cucurbits (summer squash, winter squash, pumpkins, cucumbers, melons); carrots; parsnips; and beets. Different varieties of these vegetables can easily cross not only with each other, but with any relatives that might be blooming at the same time.

Unless you're scrupulous in preventing cross-pollination between varieties, expect weirdly Frankenstein-ish broccoflowers, pumkinis, or cuculoupes from seeds saved in these groups.

Peas, beans, lettuce, tomatoes, peppers, and eggplant are self-pollinating (the pollination of a flower by pollen from the same flower or from another flower on the same plant), and their saved seeds produce more predictable outcomes. Even

though they can cross-pollinate, they're more genetically stable.

Saving seeds from self-pollinated or open-pollinated plants in this group usually yield a similar plant unless the cross is between hybrid varieties. It helps when only one variety of the same species is grown at a time (one eggplant or one pepper), and when your neighbors aren't growing different varieties of the same plant.

To get started, select from your healthiest and most vigorous plants. For crops with dry seeds like beans and peas, harvest the pods when they've completely dried, turned brown, and are brittle and easy to split open. Don't wait too long to harvest, because mature seeds that subsequently become too wet or too dry will not be as viable. Complete the drying process by spreading the seeds on a screen in a single layer in a well-ventilated, dry location. As the seeds continue to dry, the pods and chaff can be removed by hand or with a fan.

For tomatoes, allow the fruits to slightly over-ripen before harvesting. Halve the tomato, spoon the pulp and seeds into a glass container, add a little water, and set it aside for 2-3 days to ferment. During this time, fungus will consume the glop that surrounds the seeds. Then add water to the container. Healthy clean seeds will drop to the bottom. Pour off the sediment and strain out the seeds. Several rinses may be necessary. Then spread the seeds on paper towels to dry.

For peppers, slice an overly mature pepper in half and slide your finger along the membranes, stripping the seeds. Dry at room temperature on a paper towels for 2-3 days.

You can store different kinds of seeds, each in individual paper packets, together in tightly sealed glass containers at temperatures between 32 and 41 degrees. A refrigerator is ideal.

Seed Savers Exchange (www.seedsavers.org) maintains one of the largest seed banks in the United

States. Their manual, *Seed to Seed: Seed Saving and Growing Techniques for Vegetable Gardeners*, is widely acknowledged as the best guide available for home gardeners.

