

Saving Seeds

Why Collect Seeds?

Seed saving teaches self-sufficiency. It also allows us to select for flavor and for adaptation to local soil, climate and pests.

Plant Types

Collecting seeds from annual plants is the easiest. Plants such as tomatoes, beans, peas and lettuce complete their entire life cycle in one growing season and are self-pollinating. Annual vine crops such as cucumbers, squash, melons and pumpkins are more difficult to save due to cross-pollination.

Biennials such as carrots, parsley, and Swiss chard live two years and produce seeds in their second year. Collecting seeds can be difficult due to over-wintering needs and cross-pollination.

Perennials live 3 years or longer and are usually propagated by cuttings or divisions, not by seeds.

How Pollination Happens

There are 3 means of pollination: wind, insects and humans.

Open pollination is the ability to cross with other plants in the same family or variety. Plants in this group could be self-pollinated, which makes seeds collection easy, or cross-pollinated, which makes seed collection more difficult.

Self-pollination refers to plants possessing flowers with both the female and male parts. These include tomatoes, beans, lettuce and eggplant. In contrast, cucumber and squash require cross-pollination where wind or insects deliver pollen from male flowers to pollinate female flowers on the same or different plants.

Home gardeners wishing to collect seeds from cross-pollinating plants rely on manual pollination. To begin, select female flowers (they have miniature fruit at their base). Close each with a rubber band the night before it opens. In the morning transfer the pollen from a male flower to the female, and then close the female flower with a rubber band immediately. Remove the rubber band as fruit grows.

Collecting and Saving Seeds

Select disease-free plants for seed saving. Consider traits like: flavor, beauty, size, yield, early or late blooming, maturity date, method of pollination and collection. Collect seeds from several plants and fruits throughout the harvest season. Collect seeds from fully ripe fruit, but not rotten. For example, cucumbers at the edible stage do not have mature seeds. Maturity occurs after the first frost, as it does with pumpkins and winter squash. Collect flower seeds when flowers fade and dry, have dry puffy tops or dry seed pods that begin to break open.

The Dry Method: plants with dry seeds include peas, beans, carrots, peppers, and most flowers and herbs. These are best left on the plant until the seeds are dry. When necessary, pull the whole plant and hang upside down or cut the seed pods off and finish drying in the shade. Use a bag to catch any seeds that pop out. Do not use heat to dry seeds; it damages them.

- Peppers must be red/yellow and shriveled for seed collection. Wear gloves for hot peppers!

The Wet Method: plants with fleshy fruits like tomatoes are best processed through fermentation. Scoop the seeds into a glass, add water, and let sit in a warm place for 3 or more days until a mold film develops on the surface. Pour into a strainer and wash the rotten, fleshy material off the seeds. Dip the seeds in a 20% bleach solution to help protect from some viruses. After a fresh water rinse, lay the seeds out on paper towels to dry.

- Leave summer squash and cucumbers on plant until skin is yellowish and hard, well past edible.
- Eggplant seeds are ripe when fruit is brownish & shriveled. Seeds left in water too long will sprout.

Storing and Using Seeds

Put dried seeds in envelopes labeled with type (e.g. tomato), variety (e.g. Indigo Rose), days to maturity and collection date. Place in a tight-sealing jar and freeze for 2 days to kill pests. To keep seeds dry, place ½ cup of freshly opened powdered milk, folded inside tissue, in the jar. Store in a cool, dark, dry place, such as refrigerator or freezer, and protect from insects and rodents. Bring freezer-stored seeds to room temperature before opening. Legumes prefer a breathable bag. Plan to use your seeds within 3 years. Because seed viability and plant vigor decline over time, expect to plant more of older seeds to end up with the number of plants you want.

Potential Pitfalls

- Don't collect seeds from hybrids. Seeds may be sterile or result in plants that do not look like the parent.
- Seeds may carry diseases; dipping in bleach, rinsing, and drying usually helps avoid this problem.
- Seed production reduces plant vigor; select the best few plants and fruits for saving seeds.
- Don't bet the whole garden on just your saved seeds, just in case.

Additional information

OSU Publications available online at <http://extension.oregonstate.edu/catalog>

Collecting and Storing Seeds from Your Garden FS220

Cornell University, <http://www.gardening.cornell.edu/vegetables/factsheets.html>

Basic Concepts of Seed Production and Seed Regeneration

University of Maine, Cooperative Extension Publications <http://umaine.edu/publications/2750e>

An Introduction to Seed Saving for the Home Gardener 2750e

Master Gardener™ advice

- Call Home Horticulture Helpline: 503-655-8631 (Clackamas County), 503-821-1150 (Washington County), or 503-445-4608 (Multnomah County).
- For 10-Minute University™ handouts and class schedule, visit www.cmastergardeners.org.
- Look for Master Gardeners at area Farmers' Markets.

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