

Gardening Basics

Seed Saving

Saving seeds provides a sense of food security for you and your family. “Additionally, saving seeds from year to year can help adapt varieties better to the climate you live in” according to Abigail Harper, [Michigan State University Extension](#) – March 12, 2018. Two hundred years ago, there were no companies selling vegetable seeds. There were no big-box stores selling vegetable seedlings. Farmers and home gardeners saved seeds from their gardens by necessity. They chose seeds from the best plants of each variety grown the previous year and often exchanged seeds with their neighbors. Because growing vegetables was considered an essential service for “promoting the general welfare,” the U.S. Department of Agriculture from 1897 to 1924 freely distributed more than one billion seed packets each year.

Commercial seed production began in the late 1800s and rose to dominance after 1945 with the successful creation of hybrid seeds. “During the 1970s, most small seed firms vanished, as mergers and acquisitions created a new seed industry structure dominated by large companies with primary investments in related sectors.” ([The Seed Industry in U.S. Agriculture / AIB-786](#)). The consolidation of seed production into only a few providers has decreased the available varieties of vegetable seeds by about 90 percent including many flavorful and adaptable heirlooms (University of Maryland, “Seed Saving: Why and How”).

How to save seeds successfully

If you want to save seeds, you need to do a bit of planning before planting. Varieties that are wind- or insect-pollinated can be cross-pollinated by related variety. For those types of plants, consider using only one variety during the growing season. Other options to control potential cross-pollination include creating an isolation distance, planting competitors at different times, caging with spun polyester cloth or protectively covering the plant and pollinating it by hand. Seed Savers Exchange offers a guide on [recommended isolation distances](#).

Many heirloom varieties of tomatoes, peppers, beans, and peas are good choices for seed saving because they are open-pollinated, meaning they will produce seeds that are true to type. They are also self-pollinating having both male and female flowers on the same plant. “When saving seed, always harvest from the best. Choose disease-free plants with the qualities you desire.”

Dry processing:

Beans and peas that produce pods are usually dry processed. Allow the seeds to dry in their pods for about one week, then remove seeds. If needed, you can use a hair dryer or fan to blow away any debris or chaff. Allow the seeds to dry completely before storing.



*Basil seeds ready to harvest.
Barbara Brown, CC BY-NC-SA
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Wet processing:

The wet processing method is used for seeds that are embedded in fruit pulp such as tomatoes, cucumbers, and melons. This is a three-step process. First, the seeds and surrounding pulp are scraped out into a covered bowl or jar and allowed to sit undisturbed for 5 to 7 days. Then wash thoroughly to clean away the pulp and dry the seeds quickly by placing a single layer on a dish, cookie sheet, or screen. Shake several times during the day to expose all seed surfaces to the air. Do not dry in direct sunlight because the seeds may become too hot. A small fan placed near the seeds can speed up drying.

Storing seeds:



Seeds harvested from several plants. The "magic bean" seeds were collected and shared by Carol's sister who provided the name. Carol's research showed a close look-alike match to Cherokee Trail of Tears beans. Barbara Brown, CC BY-NC-SA 4.0, Denton County MGA

Place the dried seeds into an airtight storage container. You can use old baby food jars or seal the seeds using a vacuum sealer. Be sure to label the seed packets. Seeds can also be placed in small, labeled envelopes, which are then placed in a larger airtight storage container. Adding a packet of desiccant helps ensure that moisture is not available to the seeds. Store the container in a cool, dry place away from light or place in the freezer.

Advice from a Denton Master Gardener

- "The Seed Garden: The Art and Practice of Seed Saving" by Lee Buttala and Shanyng Seigel, from Seed Savers Exchange. If you only get one book, this one is suggested!
- To save the seeds from eggplant or cucumber, the fruit must be allowed to mature past when you would normally pick it.
- Be sure seeds are completely dry before freezing. The expansion of retained moisture can cause seeds to burst and spoil.

- Label your seeds, where and when it was grown, and any other info you might need in the future.
- Squash is tricky, as they have imperfect flowers. Not all squash varieties cross-pollinate, but many do. Never eat or save an unusually bitter squash.

Cautions about seed saving

Some vegetable plants are protected by a patent. To find out if a plant variety is protected by either the Plant Variety Protection Act or a Utility Patent, you can check the “Plant Variety Protection Office” at <https://apps.ams.usda.gov/CMS/>. Google also maintains a patent search database at <https://patents.google.com/advanced>.

Parting thoughts

Have fun! Seed saving can be as simple or complicated as you want to make it. Seed saving to preserve a species or variety requires a large number of plants and great care to prevent cross-pollination. For the home gardener, it can be as simple as leaving a few beans or okra on the plant until they dry or rinsing and drying the seeds from that especially juicy watermelon. Don’t be afraid to try and see what happens!

References and Resources

Clemson Cooperative Extension, Home & Garden Information Center, “Heirloom Vegetables”

<https://hgic.clemson.edu/factsheet/heirloom-vegetables/>

USDA, Economic Research Service, “Seed Industry Structure is Characterized by Growth and Consolidation”

https://www.ers.usda.gov/webdocs/publications/42517/13605_aib786g_1_.pdf?v=0

“The Seed Industry in U.S. Agriculture: An Exploration of Data and Information on Crop Seed Markets, Regulation, Industry Structure, and Research and Development” <https://www.ers.usda.gov/publications/pub-details/?pubid=42531>

Cornell Cooperative Extension of Oneida County, “Saving Seed from the Garden”

<http://cceoneida.com/resources/seeds-saving-seeds-from-your-garden>

Seed Savers Exchange, <https://www.seedsavers.org/>

Ashworth, Suzanne, “Seed to Seed,” *Seed Saver Exchange*, March 2002

eOrganic – the eOrganic Community of Practice of the Extension Foundation (formerly eXtension)

<https://eorganic.org/>

Jim Myers, Oregon State University, “Intellectual Property Protection: What Do I Need to Know When Growing and Breeding Organic Crops and Seed?” <https://eorganic.org/node/382>

“Organic Seed Resource Guide: Introduction and Table of Contents” <https://eorganic.org/node/378>

Texas A&M AgriLife Extension, “Seed Saving Law: What Farmers Need to Know”

<https://agrillife.org/texasaglaw/2015/02/04/seed-saving-law-what-farmers-need-to-know/>