

Seed Saving – Recycle Your Garden Bounty

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Save favorite seeds for replanting next year

“The seeds that gardeners hold in their hands at planting time are living links in an unbroken chain reaching back into antiquity.”

Suzanne Ashworth, farmer and author

Heirloom vegetables and fruit are in great demand. We are rediscovering varieties that were prized for flavor instead of shelf life, plants that were savored by our great-great grandparents. These cherished plants were passed from generation to generation by saving the seeds from the best crops for replanting next year.

Seed saving is nothing new. We humans have been gathering, selecting and planting seeds for millennia. Around 10,000 years ago, people in the “Fertile Crescent” (present day Iraq, Turkey, Syria and Jordan) began saving edible seeds. These included the ancient ancestors of wheat, barley, peas, lentils, chickpeas and flax. Saving seeds was essential in domesticating wild plants. Those first chosen seeds were, in a sense, the roots of agriculture.

Globally, many farmers still save seeds from the best of the current crop, to plant next year’s fields. In their fields, plant varieties are carried on for generations. “Because the United States is a nation of immigrants (with the exception of Native Americans) today’s gardeners are blessed with access to an immense cornucopia of vegetable varieties,” notes farmer Suzanne Ashworth in her book *Seed to Seed*. “Gardeners from every corner of the world invariably brought along cherished vegetable seeds when their families immigrated. Few of these family heirloom varieties have ever been available commercially until recently.”

The ancient practice of seed-saving does not work with hybrid seeds, which do not produce the same characteristics in the next generation of plants. Hybrids are created by cross-pollinating two different plant varieties, producing the best qualities of each. A plant breeder might choose one variety with a sturdy stem and another with a weaker stem but strong disease resistance. But this ideal combination is not carried on in the seeds, which are either sterile or revert to one of the parent plants.

Some seed companies use genetic modification to add a “terminator” gene, so the resulting plants produce sterile seeds. Seeds for the next crop must be purchased each year. Seed savers take a different approach by gathering and sharing seeds that have fed generations of farmers and gardeners and their grateful friends and customers.



Foxglove with seed pods. Flower Seeds are easy to collect for storing and planting later. *Photo by Trish Varrelman / WSU Skagit County Master Gardeners.*

Thousands of Varieties

Until recently, most grocery stores rarely featured more than one variety of tomato or pepper. Have you ever seen more than a couple of varieties of watermelon? There are over 1,200 kinds of watermelon around the world, according to Carol Miles, PhD, Vegetable Extension Specialist of WSU's Mount Vernon Research Center. She says that 200-300 varieties are grown in North America alone! Seed savers are working to preserve the wider array. If you find an especially tasty variety, you can help preserve and share that discovery by saving the seeds—unless, of course, it's a seedless watermelon.

The growing interest in heirloom varieties stems from the need to preserve this incredible diversity. Seeds bred for modern global agriculture frequently focus on uniform ripening, ability to withstand long distance shipping and perfect appearance, often at the expense of taste. Unless you plan to ship your produce across the country, you can seek the tastiest varieties and save the seeds to share and plant again.

Cold and Dry: The Ideal Seed Storage Climate

Moisture and warm temperatures may feel good to you in the winter, but seeds deteriorate under these conditions. To ensure the best germination, place your seeds in labeled containers (recycled used envelopes are easy to label) and pack the envelopes into a jar with a tightly sealed lid. Store the jar(s) in the refrigerator or freezer until the next planting season.

To absorb moisture, you may want to add a packet of dry powdered milk to the jar. To do this, use a recently-opened package, scoop about ½ cup of powdered milk into a small cloth bag. Place the bag at the bottom of a jar, then add your seed packets. Secure the lid and store.

Saving and sharing seeds is a fun adventure. Many books and websites provide detailed information on adding this new dimension to your gardening skills. For an in-depth exploration of this, you may want to attend an upcoming workshop on Seed Saving for Gardeners and Farmers (see Infobox for details.)

Remember, when you save seeds, you are following the footsteps of countless farmers around the world who have fed our ancestors by preserving and replanting the best of last year's harvest. Sometimes the best innovation is found in rediscovering and refining an old tradition. Farmer, author and educator, Wendell Berry notes, "When going back makes sense, you are going ahead." Or, as the satirical Firesign Theatre troupe proclaim, "Forward into the past!"



Left: Kale and poppy seed pods. Gather mature seed pods and store in a cool, dry place in a container or envelope, protected from insects. **Right:** Leave sunflower heads on the plant until the top of the blossom separates from the seed, then cut the head and finish curing the seed in a warm, ventilated area. *Photos by Trish Varrelman / WSU Skagit County Master Gardeners.*

Easy Seeds to Save

One of the first requirements for growing a successful garden is finding good seed from plant varieties that have been adapted to your area. When you calculate the value of the food you grow, you will find that high-quality seed is a bargain.

At some time, though, you may want to collect, store, and plant seed from your own garden rather than buy the seed. This fact sheet describes how to save seeds from a variety of plants.

Collecting seeds

Don't save seeds from vegetables or flowers labeled "hybrid." Seeds from hybrid varieties produce a mixture of plant types, most of which are inferior to the parent. Many varieties could be hybrids but may not be designated as such.

Seeds difficult to save:

Vine crops: cucumber, melons, squash and pumpkins

It usually doesn't pay to save these seeds. Without controlled pollination, these crops cross with other varieties and sometimes other types. Muskmelons do not cross with cucumbers, however.

You can control pollination in your garden, but it requires careful attention. First, you need to distinguish between male and female flowers. Male blossoms are on a longer stalk and do not have a miniature fruit at the base as do female blossoms.

1. With careful observation, make note of the blossoms that will open the following day. They have a light yellow color and a distinct pointed tip.
2. In the evening, select male and female flowers on the same plant. With a paper clip for small flowers or a rubber band for larger flowers, prevent the flower from opening. Flowers open only early in the day.
3. In the morning, pluck the male blossom and touch the cluster of pollen (called anthers) to the center of the female flower (called the stigma).
4. Close the female flower again so bees can't get in.
5. Tag the blossom.
6. Grow the fruit to maturity for the desired seed.

The fruit must be very ripe for seeds to germinate correctly. Cucumbers must be entirely yellow, and squash and pumpkin must be thoroughly mature. Separate the seeds from the fruit flesh and dry them at room temperature.

Biennials: carrot, beet, onion, and cabbage family

Biennials are questionable for seed collection. It may take considerable effort to carry over the plant root from the first season to the second year when seed stalks form. Many members of the cabbage family intercross and also can cross with native wild crucifers such as mustard, cress, radish, or turnip.

- Carrots cross with the prevalent wild carrot. Select desirable beet or carrot roots and keep them cool and moist, perhaps buried outdoors in sand. In early spring, plant the roots in an uncrowded area of the garden because they grow very large.
- Keep onion bulbs cool and dry during the winter, then plant them in early spring. After spring growth, seed heads form. When heads are quite dry, gather the mature, plump seed before it falls to the ground and complete the drying at room temperature.

Flower seeds

You can save many flower seeds, though crossing some varieties can cause deterioration from the original over time.

- Gather mature seed pods (stock and poppies) or seed clusters (zinnia, strawflower).
- Leave sunflower heads on the plant as long as birds don't bother them. When the top of the blossom separates from the seed, or birds start eating the seeds, cut the head and finish curing the seed in a warm, ventilated area. You also can eat seeds or use them as bird feed after the seeds dry.

Storing seeds

Keep seeds in a labeled container or envelope in a cool, dry place where they are protected from insects. Storage life of seeds varies widely. Here is a guide:

- *Short-lived seeds* (1-2 years): com, onion, parsley, parsnip, pepper
- *Intermediate seeds* (3--4 years): asparagus, bean, broccoli, carrot, celery, leek, pea, spinach
- *Long-lived seeds* (4-5 years): beet, chard, cabbage family (Brussels sprouts, cauliflower), turnip, radish, cucumber, eggplant, lettuce, muskmelon, pumpkin-squash group, tomato, watermelon

An ideal way to prepare seed for long-term storage is to place seed packets in a jar, seal the jar tightly, and place it in a refrigerator or freezer. To help absorb moisture, place a small, cloth bag filled with dry powdered milk beneath the seed packets in the bottom of the jar. Use about ½ cup of dry milk from a recently opened package.

Test germination

To test seeds for germination before planting:

1. Moisten two or three layers of paper towels.
2. Place 25 to 50 seeds on the towels and roll the towels loosely. Place them in a plastic bag.
3. Keep the towels in a warm place such as on a kitchen counter or on top of a water heater.
4. Some seed, such as radish, germinates in 2 or 3 days. Peppers can take 10 to 14 days. Observe the seed at 2-day intervals to determine the degree of germination.

(Taken from the OSU publication FS 220 “*Collecting and Storing Seeds from Your Garden*” by D. Hatch.)

For more information please visit the Organic Seed Alliance website:

<https://seedalliance.org/publications/seed-saving-guide-gardeners-farmers/>

RESOURCES:

- **Completing the Cycle: Saving Seeds** – <https://www.seedsofchange.com/seeds/learning-center/articlesandvideos/introduction-to-seed-saving>
- **Organic Seed Processing: Threshing, Cleaning and Storage** – <https://eorganic.org/node/392>
- **How to Organize a Community Seed Swap:** www.motherearthnews.com/Organic-Gardening/How-To-Organize-A-Community-Plant-And-Seed-Swap.aspx
- **Seed Savers Exchange** – www.seedsavers.org
- **Seeds of Diversity** – Conserving biodiversity and traditional knowledge of food crops and garden plants in Canada - www.seeds.ca/en.php
- **Seed to Seed: Seed Saving and Growing Techniques for Vegetable Gardeners.** Suzanne Ashworth, published by Seed Savers Exchange, 2002.

Note: some hyperlinks in this article have been updated since its initial publication.