

Seed Saving for Beginners

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EXTENSION PROGRAM

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COEUR D'ALENE SEED SHARING LIBRARY

Seed saving can be complicated, but if you start with these tips you'll be on the path to saving and sharing quality seed.

www.truetoseedcda.org

1. Know your seed. Heirloom or open-pollinated plants are the best seeds to save. Stay away from saving seeds from a hybrid variety (F1 or F2). They won't grow "true to type" to the original parent plant.
2. Save information and label the seeds collected. Keep good records from the start. The information you pass on is as important as the seed. Include information such as the type of seed, variety, days to maturity, date harvested, location, source, and most importantly, the scientific name. The scientific name is listed on the packaging in Latin and characterized in italics.
3. Watch for cross-pollination. To keep a variety "pure," you should plant in isolation to minimize the chance of crossing. Crops that are wind or insect pollinated require a greater isolation distance from other varieties of the same species. Always look at the Latin name to determine the plant's species. That way you'll know whether or not there's danger of cross pollination within your garden. There are often many species within a family, and only plants of the same species will cross pollinate. For example, cucumbers and squash are both in the cucurbit family, but cucumber (*Cucumis sativus*) cannot cross pollinate squash (*Cucurbita pepo*), because they are two different species.
4. To maintain the genetic integrity of a variety, it's important to save seeds from a diverse population of individual plants.
5. Choose ideal plants to save seeds from. Healthy, strong plants are more likely to produce healthy, strong seeds. Save seeds from disease-free plants to help prevent seed-borne disease.
6. Good storage practices will increase the long-term viability of your seed. The storage area should be dark, dry, cool, and protected from pests.

Choosing Seeds

Here are some guidelines for growing plants to save seeds.

- **Extremely Easy Seeds to Save:** peas, beans, lettuce, tomatoes, arugula, and dill. Great for beginners and plants that are less likely to cross-pollinate with other plants in that family. Stick with one variety of a plant or separate different varieties with distance.
- **Easy Seeds to Save:** spinach, peppers, parsley, parsnips, carrots, beets, Swiss chard, and most flowers. These plants are insect pollinated or biennial and are likely to cross-pollinate with other varieties of the same plant. They may also take more than one season to produce seeds.
- **Advanced Seeds to Save:** all brassicas, corn, pumpkins, squash, cucumbers, and melons. These produce plants that are wind or insect pollinated and very likely to cross-pollinate with other plants of the same species. Stick to a single plant variety, stagger growing times, and use tenting or hand pollination techniques to preserve the purity of the seed.

Saving Seeds

Dry Seed Processing: beans, peas, peppers, basil, spinach, carrots and onions. Harvest dry seeds from plants when the pods or husks have dried. Cleaning dry seeds involves simply drying and crumbling the pods or husks, then “winnowing” the seeds or using a screen to separate them from the chaff. Collect dry seeds under dry, warm conditions to prevent mold and reduce additional drying time.

Wet Seed Processing: tomatoes, eggplant, melons, squash, and cucumbers. Allow the fruits to fully mature on their plants before harvesting. To clean wet seeds, scoop the seeds from the fruit, pulp and all. Pour seeds and pulp into a container and add water. Healthy seeds will sink to the bottom of the bowl, while dead seeds and most of the pulp will float. Use your fingers to gently separate all the seeds from the pulp. Drain and lay the seeds that sink on a plate to dry.

Fermentation: tomatoes, melons and cucumbers. Fermentation removes germination-inhibiting substances from seed coats, makes them more permeable to water, and also helps reduce or control seed-borne diseases. First, remove wet seeds and any seed juice with a little water in a small plastic or glass container with a loose lid. Allow the seeds to sit in a warm area for 3 to 6 days. When a layer of mold has formed on top of the water and the seeds sink, the fermentation is complete. Add more water, swish it around, and remove the mold and pulp. Good seeds will sink to the bottom, while the bad seeds float to the top. Drain the water and remove floating debris. Place the good seeds on a plate to dry.

Storing Seeds

No matter how dry your seeds are, they all contain some essential internal moisture. It is important to store your seeds in a dry, dark and cool location.

1. After harvesting your seeds, make sure they have completely dried.
2. Store your seeds in a moisture-proof container. Small plastic bags, paper envelopes, or glass jars are all excellent choices. If using plastic bags, make sure to squeeze out all of the air.
3. Label your seeds!
4. Maintain proper temperature, light and humidity. The ideal storage temperature range for most seeds is between 32°F and 41°F. Ideal humidity levels should be 50% or less. Avoid light and never store seeds in direct sunlight or a well-lit room.
5. Storing your seeds with a silica packet or oxygen absorber may prolong their life.
6. When you are ready to use your seeds, keep them in their closed storage container until the seeds come to room temperature. This will prevent unwanted condensation from settling on the seed packets.

Words to Know

Open-pollinated: when pollination occurs by insect, bird, wind, humans, or other natural methods. As long as pollen is not shared between similar species, then the seed produced will remain true-to-type year after year.

Heirloom: a variety of plant that has a history of being passed down within a family or community. An heirloom must be open-pollinated, but not all open-pollinated plants are heirlooms.

Hybrid: (F1, F2) cross-pollination between two different plant varieties to get the valued attributes of each variety. Hybrids are not GMOs.

Genetically Modified Organism (GMO): Genes from one species are artificially implanted into the DNA of another species, which contain combined genetics that would not exist in nature.

Plant Variety Protection (PVP): The Plant Variety Protection Act was enacted to encourage the development of novel varieties of sexually reproduced plants by granting plant breeders with exclusive marketing rights for their creations.

Biennial: a flowering plant that takes two years to produce fruit and seeds.