



How to Save Seeds



Seed Saving

fact sheet

The **Bay Area Seed Interchange Library (BASIL)** at the Ecology Center is a free, community-based, urban seed project committed to disseminating and celebrating local varieties of seed and raising awareness about the importance and relationship between biological and cultural diversity.

WHAT ARE SEEDS?

A plant produces seeds in order to reproduce itself. A pollinated flower creates a seed to grow a new plant. Understanding pollination is key to saving seeds to grow the plants you want. Some plants are **self-pollinating**—the male and female parts are contained within a single flower that fertilizes itself. Other plants are **cross-pollinators**—they have separate male and female flowers and their pollen has to get from one flower to another in order for the flowers to be fertilized.

Plants in the same **families** will have the same flower and reproductive structure, so their seeds will be saved in the same way.

The seeds from families of plants that are self-pollinating are labeled “**easy**” to save. Some cross-pollinators are labeled “**difficult**” because they can cross within their family and the seeds produced will not be the same as the parent plants. Extra steps need to be taken with these plants to separate them from similar varieties and hand-pollinate them.

A key concept for saving seeds is to collect from healthy plants that have qualities you like: good flavor, lots of fruit, drought-tolerant, etc.

SUPER EASY-TO-SAVE SEEDS

The plants in these families are mostly self-pollinating. The flowers have male and female parts, so pollination occurs within the individual plant, not as a cross between plants. Seeds are reliably the same as the parent plant.

Asteraceae or Compositae *Aster, Daisy, or Sunflower Family: artichoke, cardoon, endive, Jerusalem artichoke, lettuce, salsify, shungiku, sunflower.* For Jerusalem artichokes, the tuber is planted. For others in this family, allow the plants to flower, collect dry seeds.

Fabaceae or Leguminosae *Pea, Bean, Legume or Pulse Family: bean, lentil, pea, peanut, soybean.* Allow beans and peas to dry in their pods on plants before collecting and storing.

Solanaceae *Nightshade Family: cape gooseberry, eggplant, ground cherry, pepper, potato, tomatillo, tomato.* Allow fruits to fully ripen. Squeeze seeds and some pulp into a jar. Letting tomato pulp ferment in water for a few days is helpful. Then seeds should be rinsed and pulp removed. Dry them thoroughly before being stored. Potatoes are grown from tubers, not seeds.

How to Save Seeds (continued)

EASY-TO-SAVE SEEDS

These plants are self-sterile, cross-pollinating, or **outbreeding**. They will cross with other plants of their species. To save seeds from these plants you must:

- Allow only one variety in each species to flower at a time
- Let multiple plants of one variety flower to ensure pollination

In our dense urban environments, some crossing can occur with our neighbors' plants, but these plants will not cross over great distances. Many are rarely left to flower.

Amaryllidaceae or Alliaceae *Lily or Onion Family: chives, garlic, leeks, onions.* They are biennial, which means they flower their second year, after winter. Let the seeds dry on the plant. Collect. With bulbous varieties, replant bulb when it sprouts.

Chenopodiaceae or Amaranthaceae *Goosefoot or Amaranth Family: amaranth, beet, chard, lamb's quarters, orach, quinoa, spinach.* Beet and Chard are the same species, so only let one variety flower at the same time. Spinach is dioecious meaning each plant is either male or female, so let many plants flower at once for pollination. Let the seeds dry on the plant. Collect.

Umbelliferae or Apiaceae *Parsley Family: carrot, celery, caraway, chervil, cilantro (coriander), dill, fennel, parsley, parsnip.* Carrot can unintentionally cross with Queen Anne's Lace, so seeds from carrots will not be "true to type" if Queen Anne's Lace grows nearby. Many in this family are biennials, so flowering may not occur until the second year. Let the seeds dry on the plant. Collect.

DIFFICULT SEEDS

Most of these vegetables are outbreeding and pollinated by wind or insects. They are commonly found flowering in local neighborhoods, making isolation very difficult. Seeds that require hand pollination, tenting, and other methods to ensure purity are labeled "difficult." These families will readily cross with nearby similar varieties and may create strange, possibly inedible, varieties.

Brassicaceae *Mustard Family: Asian greens, broccoli, Brussels sprouts, cabbage, cauliflower, collards, kale, kohlrabi, mustard, radish, turnip.* **Exceptions that are easy:** Arugula, rutabaga

Cucurbitaceae *Gourd Family: cucumbers, gourds, luffa, melons, pumpkin, summer squash (eg zucchini), winter squash (eg acorn).* **Exceptions that are easy:** Plant uncommon cucurbits like gourds, mixta squash, luffa. Hand pollinate to ensure purity with this family.

Poaceae *Grass Family: barley, corn, kamut, millet, oats, sorghum, wheat.* Corn readily crosses with different, unseen varieties. It is unlikely that saved seeds will be like their parents. **Exceptions that are easy:** Sorghum is easy to save because it does not cross.

WHAT TO LOOK FOR WHEN YOU BUY SEEDS

Open-pollinated or **heirloom** varieties have been grown for so many generations that their physical and genetic qualities are relatively stable. This seed will be "**true to type**" if saved. In simple terms, you will reap what you sow.

Hybrid seeds: If a packet has hybrid, F1, or VF written on it, seeds from those plants will not produce plants like the parent plant. They may produce something somewhat or very different, or they may produce nothing at all.