



Toronto
Green
Community

SEED SAVING BASICS

Why Save Seeds?

Saving seeds is not only beneficial for the individual gardener or grower, but by protecting genetic diversity and avoiding the purchase of seeds from companies that genetically modify and/or patent their seeds, we can contribute to protecting food sovereignty and the right to an open and free source of food for everyone.

How to Save Seeds of Different Types of Plants

Self-Pollinating Annuals are plants with flowers that have both male and female parts in each flower. They do not require pollen from neighbouring plants and tend not to cross-pollinate with each other. Examples of these types of plants include: peas, tomatoes, tomatillos, beans, peppers, eggplants, lettuce, and okra.

For beans, peas and lettuces, simply allow the plants to continue their life cycle, and harvest the pods or seeds from the plants when the aerial parts of the plant are dried and withered. Tomato seeds require a period of fermentation (3 days in water) to allow the mold to break down the outer seed layer. Peppers and eggplants can be allowed to fully mature on the vine and when almost rotting, harvest seeds, rinse and lay them on paper to dry.

Biennials are plants that go to seed every second year. These are more challenging but still suitable for a beginning seed saver to try. Examples of biennial vegetable plants include beets, chard and parsnips. Roots of beets and/or chard can be harvested by cutting of the top ½ inch above the crown of the best roots, dust off (but don't wash!), and store in a cool, humid place over winter. Some vegetables like carrots and parsnips can be left in ground over winter and will return in spring.

Cross Pollinating Annuals have flowers that pollinate each other. The pollen from one flower fertilizes another flower, either on the same or another plant. Either wind or insects carry the pollen. The most common family of plants in this category are the cucurbits (pumpkins, squash and related plants), but also include spinach and members of the brassica family.

For Courgettes (pumpkins, squashes) there are 4 main species: *Cucurbita Pepo*, *Cucurbita Moschata*, *Cucurbita Maxima* and *Cucurbita Mixta*. As long as you and/or your neighbours don't grow more than one of each species, they will not cross-pollinate with each other. To save the seeds, let plants fully mature (they turn yellow and soft). Then spread the seeds out to dry. Find species information online or on your seed packet.

For spinach, arugula and other leafy brassicas: - if you just grow one kind you can save the seeds. Don't save from plants that bolt (aka. go to seed) first! Leave a few plants to go to seed- seeds will dry on the plant, then you can harvest them for planting later.

Plants without seeds (Clonal Reproduction)

Some plants do not form seeds and so do not cross-pollinate. These are often very easy to grow in your garden and you can save plant materials to share with others. Garlic, onions, potatoes and Jerusalem artichoke are examples of bulbs, roots and tubers that will reproduce if in ground or left in cold storage. For rhubarb, split the roots in early spring or late fall when the plant is dormant.

Herbs

Most herbs are easy to save, but some do cross-pollinate. If you want to save seeds then only let one variety of each herb flower, or just grow one variety. Let the seeds dry on the plant, then harvest. If you find that the seeds are falling off the plant you can tie a paper bag around the seed head and leave it on the plant to dry.

It is important to note that if you have grown plants using seeds that were not certified as organic/heirloom, you might be using seeds that contain some chemicals and possibly GMO's. Offspring of GM crops are wildcards- their traits will be unknown and unpredictable. If you aren't sure where your seeds came from, it is best to leave them and purchase organic heirloom seeds.

Tips and Tricks:

- . Make sure your seeds are open-pollinating!
- . Save seeds from your best plants.
- . Save seeds from different plants in the same variety for genetic diversity
- . Do not keep seed from insect or disease-ridden plants. Inferior plants make inferior seed.
- . Save your biggest seeds! Across species, the largest seeds generally produce the most vigorous seedlings.
- . Time it right: wait until fruits are over-ripe (falling off the plant) or when seeds have dried on plant. Think of what nature would do.

Harvesting and Storage:

- . Harvest on dry, sunny days if possible.
- . Put seeds in small coin envelopes or wrap securely in paper towel until seeds have dried to less than 10% moisture content.
- . If seeds are moist (taken from flesh of fruit or vegetable), consider drying in a thin layer on a glass plate until moisture has evaporated, then transfer to a paper envelope.
- . Drying process may take a few days to several weeks, depending upon species, atmospheric humidity, and equipment.
- . The lower the humidity, the faster the seeds will dry.
- . The faster you dry the seeds, the less likely they will be exposed to pathogens.
- . Rule of Thumb: The sum of relative humidity and storage temperature in degrees Fahrenheit must not exceed 100, as long as the temperature is less than 50°F (10°C).
- . Store seed packets in glass jars at room temperature away from direct light or in cold storage (refrigerator).
- . Place a tablespoon of rice in each jar/storage container to absorb any excess build up of moisture (but ensure that the rice doesn't come in contact with the seeds). Check for condensation and adjust storage conditions accordingly.

Other Seedy Resources:

Books:

- “The Complete Idiot’s Guide to Seed Saving and Starting” Sheri Ann Richerson, 2012
- “Seed to Seed: Seed saving and growing techniques for vegetable gardeners” Suzanne Ashworth, 2002

Websites/Organizations:

- Seeds of Diversity (www.seeds.ca)
- Toronto Seed Library: www.torontoseedlibrary.org

Organic/Heirloom Seed Retailers:

- Urban Harvest, Toronto-based seed company: <http://www.uharvest.ca/>
- Richters Herbs: www.richters.com

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