How to Save Seeds

1.Know what to grow

Start With Open-Pollinated Seeds

Open pollinated varieties, aka OPs, are like dog breeds; they will retain their distinct characteristics as long as they are mated with an individual of the same breed. This means, with a little care and planning, the seeds you produce will be true-to-type, keeping their distinct traits generation after generation as long as they do not crosspollinate with other varieties of the same species.

Annual, Biennial, Perennial

Not all plants flower, set seed, and die in a single growing season. Those that do, like lettuce, tomatoes, and peppers, are called annuals. Biennials, such as carrots and onions, don't flower until their second growing season, after they have gone through a cold period. Some long lived plants, like apple trees and asparagus, are perennial, surviving and flowering for many years.

Learn About Species

A species is a group of individuals that are able to reproduce together. In the garden, most crops are different species from one another, but not always. There are several species of squash and two distinct species of kale - meaning some varieties of these crops are not able to cross pollinate with each other. On the other hand, Cucumis melo, commonly categorized as a melon, also contains some varieties that are sold as cucumbers like 'Armenian' because fruits of the variety are unsweet and sometimes pickled.

2. Plan for seed saving

Start With Easy Crops

Some crops like <u>peas</u>, <u>beans</u>, <u>lettuce</u>, and <u>tomatoes</u> are great for beginning seed savers. These annual, self pollinating crops require little to no isolation, and only a few plants are needed to reliably produce seeds.

Grow Enough Plants

Some crops have a hard time producing seeds when too few plants are around. Others can reproduce with just a single plant. If the population size of a seed crop is too small, some genetic diversity may be lost and over many generations; in time this can result in a noticeable decrease in plant stature, overall vigor, germination, and yield.

Put A Little Space Between Varieties

In order to produce seeds that are true-to-type, a little garden intervention is needed to prevent unwanted cross pollination between different varieties of the same species. For some crops like lettuce and peas, all that is needed is a little extra space between varieties. For others, more advanced methods can be used, including larger isolation distances, pollination barriers, or hand pollination.

3. Collect Your Bounty

Know When Your Seeds Are Mature

For crops that produce wet fruits, the seeds are not always mature when the fruits are ready to eat. Eggplant, cucumber, and summer squash fruit are eaten when the fruits are immature and still edible, but before the seeds are actually mature. This means that seed savers need to leave a few fruits to fully mature in the garden when they want to save seeds. Dry fruited crops, like grains, lettuce, and beans, can be removed from the plant once seeds are dry and hard.

Know How To Harvest Seeds

Garden crops can be classified as either dry fruited or wet fruited. Collecting seeds from dry fruited crops, can be as simple as going out to the garden, handpicking a few mature seedpods, and bringing them into the house for further drying and cleaning. Fruits from wet fruited crops must be picked when their seeds are mature. The harvested fruits are either crushed or cut open, and the seeds are extracted from the flesh and pulp before the seeds are dried.

Store Seeds

Seeds are happiest when they are stored in a cool, dark, and dry place. A dark closet in a cooler part of the house or a dry, cool basement are both good spaces to store seeds for a year or two. Once properly dried, seeds can also be sealed in airtight containers and stored in the refrigerator or freezer for several years. Don't forget to label your seeds with the crop type, variety name, and any useful notes about your seed source, when you harvested the seeds, and how many plants you harvested from.



Seed Saving & Gardening Terms to Know:

Annual: a plant that completes its full life cycle—including germination, reproduction, and death—in one growing season

Anther: the pollen-producing part of a stamen

Biennial: a plant that requires vernalization and usually completes its life cycle in two growing seasons, growing vegetatively during the first season, undergoing vernalization, and producing flowers and seeds and dying during the second season

Bolt: to elongate rapidly (as a stem) prior to flowering

Cross-pollination: the transfer of pollen from one plant onto the stigma or flower of another plant

Cultivar: a plant or group of plants that have been bred or selected to have distinguishable, desirable traits; commonly called a variety

F1: the first-generation offspring produced from a cross between two different populations or varieties; an abbreviation of "first filial generation" Filament: the hairlike stalk of a stamen that has a pollen-bearing anther at its tip

Flower: the reproductive structure of an angiosperm

Genetically modified organism (GMO): an organism that has had its genetic composition altered by way of molecular breeding techniques

Germination: the process by which a seed absorbs water and swells, causing the radicle to break through the seed coat; the emergence of a young plant from a seed

Heirloom variety: an open-pollinated cultivar that has been grown and shared from generation to generation within a family or community Hybrid: a plant or variety created by crossing two stable, genetically distinct parental populations; of or related to such a plant or variety; also called an F1 hybrid

Isolation: the separation of one plant or group of plants from another to prevent cross-pollination

Natural selection: the multigenerational process by which heritable traits in a population become more or less common as a result of how efficiently those traits help individuals survive and reproduce

Open-pollinated variety: a variety that, when allowed to cross-pollinate only with other members of the same population, produces offspring that display the characteristic traits of the variety

Perennial: a plant that can live for more than two years, usually producing flowers and seeds for many years

Pistil: the female reproductive organ at the center of a flower, usually composed of an ovary, style, and stigma

Pollen: typically dust-like structures, produced by anthers, that carry male reproductive cells in flowering plants

Pollinator: an animal, often an insect, that moves pollen from an anther to a stigma **Population:** the total number of plants of a variety that contribute their

genetic material to the seeds being collected; a group of interfertile plants growing together that have the potential to interbreed

Row cover: spun synthetic fabric used to protect crops from pests and frost Seed: a mature plant ovule composed of an embryo, an endosperm, and a seed coat

Seedborne: being carried in or on a seed; often refers to pathogens or disease

Self-pollination: the transfer of pollen from an anther to a stigma of the same plant

Stamen: the male reproductive structure of a flower, comprised of a filament and an anther

Stigma: the pistil's sticky tip, which receives pollen

True-to-type: conforming to the known characteristics of a known plant variety

Variety: a phenotypically distinct, naturally occurring population of plants within a species: commonly used as a synonym for "cultivar"

Vernalization: the exposure of a plant to low temperatures, enabling the plant to flower

These definitions are drawn from <u>The Seed Garden: The Art and Practice of</u> <u>Seed Saving</u>, edited by Lee Buttala and Shanyn Siegel and published by Seed Savers Exchange.



Seed Saving Tips!

Planting Chart



Websites

Seedsavers.org

Howtosaveseeds.com

Almanac.com/content/start-savingthose-vegetable-seeds

Homesteading.com/art-seed-saving

Seedalliance.org