

TYPES OF POLLINATION

Pollination is the process of sexual fertilization in plants. The different methods a flower uses for pollination will dictate the spacing or isolation necessary for plants to produce dependable seeds.



Self-Pollination occurs without need for other flowers or plants because it takes place within the flower. Isolation distance to prevent cross-pollination is not necessary.

Cross-Pollination takes place when pollen is exchanged between different flowers on the same or different plants. If not prevented, unwanted characteristics and traits may result in the offspring. Any crop cross-pollinated between two different plant varieties is called a hybrid.

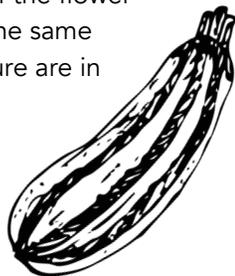
PLANT FAMILIES

Families define the basic form of the flower parts of plants. All plants with the same flower (and reproductive) structure are in the same family.

Genera (singular Genus) define more closely related plants. Crosses between genera are rare but can occur.

Species define specific botanically recognized plants with similar fruit, flowers, and leaves. Plants within one species will readily cross with each other.

Cultivars are cultivated varieties that cross with each other when they are in the same species. When we save seed we usually want to maintain a cultivar or



breed a new one. See the example below:

Family: Cucurbitaceae

Genus: *Cucurbita*

Species: *Cucurbita pepo*
(scientific name)

Cultivars: Acorn squash,
Warted gourd



HOW TO PICK YOUR SEED

Some seeds are easier to save than others. Some seeds pollinate themselves (self-pollinators) and others cross-pollinate between their own flowers and flowers of other plants by insects or wind. Some plants only produce seed after the second year.

If you are growing heirloom ancient seeds, you will want to make sure that it will not cross-pollinate with another undesirable plant to keep the seeds pure. One 'advanced' seed to save is corn. Corn is pollinated by the wind and it can cross-pollinate with another corn plant up to 2 miles away! That means if the farmer next door to you is growing GMO corn, it's a good idea to grow something else. But, if you are in a sufficiently isolated location, this seed is not 'advanced' at all.

HOW TO PROCESS AND STORE SEEDS

Dry Seed Processing: This refers to seeds partially dry while still on the plant. The seeds are collected before the seed head opens. You can harvest them by cutting the seed stalk off the plant. You may put them in a paper bag to dry fully.

Wet Seed Processing: The seeds are scooped out of the fully ripe or overripe fruit, rinsed to remove pulp, and spread out on a wicker

basket, wax paper or screen to dry one seed deep. Avoid paper or cloth as seeds will stick and dyes may be transferred.

Fermenting of Seeds: The process of saving seeds that are surrounded by a gel-sack which contains germination inhibitors. The seeds of this fruiting body are squeezed into a glass container and covered with water. The container is left out at room temperature for 1-3 days. A layer of mold will form at the top and the gel sack will have broken down. Toss away any floating seeds. Then clean the good seeds by dumping the moldy water and swishing new water around the seeds a few times. Then, spread out the seeds on a paper to dry.

Seed Storage: Seeds store best when they are in a cool, dark and dry environment. Temperature plus humidity should equal less than 100. High humidity and heat destroy seeds. Airtight jars work very well to deter moisture when seeds are thoroughly dried. Place seeds on the floor because the temperature fluctuates less. Place seeds into a paper envelope because if the seeds are not completely dry, they will continue to dry out in the envelope, then place that into an airtight jar. You may put seeds in clay or metal cans as well. For long term storage, or seed banking you can dry seeds with silica gel, then seal them in airtight envelopes and place in a freezer.



THE MAGIC OF SEED SAVING



We invite you to rejoin a ritual as old as civilization, a ritual in many ways responsible for civilization. Eons ago a tribal gardener found a corn cob slightly larger than a fingernail. This person took care to save the seeds from the largest, best or most desirable ears, plant them and harvest anew. This has been done countless times over thousands of years before corn was harvested into modern sizes, shapes and colors. When a gardener or farmer plants their own open-pollinated seeds, they are passing on the ageless, priceless gift bestowed upon them.

THE IMPORTANCE OF SEED SAVING

It took humankind over 10,000 years to create much of the world's agricultural genetic diversity. We may lose most of that in one generation. As late as 1900, there were more than 1,500 different cultivated varieties in North America. Today, 90% of the world's nutrition is provided by only 30 different food crops. Four of which, *wheat*, *rice*, *corn*, and *soybeans*, provide 75% of our calories. Without diverse strains in our local ecosystems, the ecology of our planet has become threatened by "mono-cropping" and super-hybrids. This has been happening more and more in our modern industrial agribusiness system, with diseases growing stronger because of our poor management of crops and lack of ecological diversity. This diversity helps strengthen soil health, disease and insect resistance, nutrition, flavor, taste and more.

ABOUT NORTH CIRCLE SEEDS

We develop intentional relationships with...

...OUR SEEDS

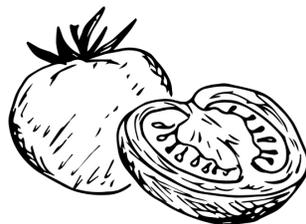
All of our seeds have been adapted to the Upper Midwest climate by farmers who use chemical-free, sustainable, and organic practices. Learn more about the story behind the seed by listening to our Seed Stories podcast.

...OUR GROWERS

We contract with growers so that they are paid a fair wage at the beginning of the growing season, which helps them maintain a financially sustainable business.

...OUR CUSTOMERS

We guarantee that our seeds have undergone rigorous testing and have been selected for their vigor and success for our short growing season.



We'd love to see you at our next seed saving event!

Check out our Events page at northcircleseeds.com, subscribe to our newsletter, or follow us on Facebook to be the first to know about our upcoming seed saving workshops!

SEED SAVING GUIDE

It all starts with the seed



North Circle Seeds is committed to creating an ecologically diverse, equitable, and inclusive food system. We do this through an intentional relationship with our seeds and our circle of Midwestern growers, who produce regionally adapted seed using chemical-free, sustainable and organic practices.

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