



Basic Seed Saving Worksheet

Plant	When to gather seed	Processing
beans and peas (self-pollinating)	Leave in pods on plant until they rattle.	Remove seeds from pods and spread them out to dry.
pepper (self- or insect-pollinated)	Gather from a mature pepper (if possible, one that is fully red).	Scrape out seeds and spread them out to dry. They're ready to store when they break rather than bend.
tomato (self-pollinating)	Harvest when fruits are fully ripe. Seeds have a gelatinous coating to prevent them from sprouting inside the fruit. Squeeze seeds into a bowl when tomatoes are fully ripe.	Ferment mixture by adding water and letting it stand at room temperature for 3 to 4 days, stirring a few times a day to prevent mold. The good seeds will sink to the bottom and can be spread out to dry.
eggplant (self- or insect-pollinated)	Leave fruit on vine until it's hard, dull, and off-colored.	Cut the fruit in half and pull flesh away from seed area. Wash and rinse seeds before spreading them out to dry. If seeds are hard to remove, grate or blend the bottom part of the fruit (with the ripest seeds), put the pulp in a bowl of water, and squeeze the gratings with your fingers. Good seeds will sink to the bottom.
cukes (insect-pollinated)	Seed is ready once fruits have turned golden/orange and are getting mushy.	Cut fruit in half, scrape seeds into a bowl, and remove their slimy coating by rubbing them in a sieve with water. Rinse before spreading out to dry. (Some recommend using the same treatment as listed for tomatoes.)
summer squash (insect-pollinated)	Seed is ready once fruits are hard (cannot dent with a fingernail). This may be after frost.	Cut open and scrape seeds into a bowl; wash and rinse them before spreading them out to dry.
watermelon (insect-pollinated)	Harvest seeds from ripe fruit.	Before drying, rinse seeds in a strainer using a drop of dish soap to remove sugar.
lettuce (self-pollinating)	Gather seeds once the plant sends up a stalk and half of the flowers have turned white with fluff. (If you wait too long, the seeds may fly away.)	Rub out and separate seeds from seedheads. Shake the seeds up and down on a tray or screen and gently blow away the lighter chaff.

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Glossary

chaff - Broken pieces of dried seed capsules, stems, leaves and other debris mixed in with seeds.

characteristics - General features caused by unidentified complexes of genes including but not limited to freeze tolerance, cold tolerance, regional adaptability, winter hardiness, early maturation, and flavor.

cleaning screen - Screens with different-sized openings are used to separate seeds from chaff. The screen number denotes the number of openings that will cover a one inch line. A screen is selected with openings just large enough to let seeds drop through without the chaff or as in the case of larger seeds, a screen selected to allow the chaff to drop through without the seeds.

cross-pollination - When pollen is exchanged between different flowers from the same or different plants.

dehiscent - A seed capsule opened to discharge seeds is dehiscent. Seeds must be harvested before this process takes place and the seeds are lost. In some varieties, the seed capsules literally explode.

dominant trait - The variation of a specific, identifiable gene that results in observable traits. For example, tall is a dominant trait in pea plant growth. Crosses with bush varieties will usually result in tall varieties. See "trait."

F1 hybrid - The "F" in F1 hybrid stands for filial or offspring. F1 means the first generation offspring after cross-pollination. The majority of F1 hybrids are sterile or produce offspring unlike themselves. See "hybrid."

flail - The process of fracturing or crushing seedpods in order to free the seeds. This can take the form of



everything from simply rubbing broccoli pods between your hands to driving over bean vines with a car.

flower - The part of a plant where reproduction takes place and seeds are produced.

hybrid - Varieties resulting from natural or artificial pollination between genetically distinct parents.

Commercially, the parents used to produce hybrids are usually inbred for specific characteristics.

inbreeding depression - A loss of vigor because of inbreeding. Inbreeding is the result of self-pollination or pollination between two close relatives.

insect pollination - Pollen is carried from one flower to another by insects.

open-pollinated - Open-pollinated varieties are stable varieties resulting from the pollination between the same or genetically similar parents. Not hybrid.

pollen - Equivalent of sperm in plants. Pollen grain fertilizes plant ovules.

pollination - The process of sexual fertilization in plants. The male chromosomes contained in pollen are combined with the female chromosomes contained in the ovules.

recessive trait - The variation of a specific, identifiable gene that results in observable traits only if the dominant trait is not present. For example, wrinkled pea seeds result only in varieties where the dominant smooth-seed trait is missing.

rogue - The process of removing or destroying plants with unwanted characteristics or traits.

selection - The process of saving the seeds from plants that exhibit desirable characteristics and traits. To identify desirable characteristics, plant the same variety in different environmental conditions, or plant different varieties in the same environmental conditions.

self-pollination - When pollination takes place within a single flower, usually before it opens. Other flowers or plants are not needed. Self-pollinating flowers are called "perfect flowers" because they contain the stamens that produce pollen and the pistil that receives the pollen. Isolation distance to prevent cross-pollination is not necessary unless insects are known to invade the flowers before pollination is complete.

thresh - A term used by seed professionals to describe the process of separating seeds from chaff.

trait - A specific feature traced to an identifiable gene or group of genes. Pea traits traceable to single genes include vine growth (bush or tall), seed texture (smooth or wrinkled) and disease resistance (fusarium, enation mosaic, and powdery mildew).

viable - A viable seed is one that will germinate and produce a vigorous plant. Seeds must not be harvested before they have matured enough to be viable. There is wide variation in the point of maturity at which a seed can be harvested and still be viable.

vigor - Strong, vibrant germination and growth. A desirable characteristic.

wind pollination - When pollen is carried from one flower to another by the wind.

winnow - An ancient technique used to clean seedsmoving air from a fan or breeze is used to separate heavier seeds from lighter chaff.

Please visit www.seedsave.org for full glossary and expanded materials.



www.hopeseeds.org