

SAVING SEEDS

Julia Laughlin

OSU OKLAHOMA COUNTY

Horticulture Educator



OKLAHOMA COOPERATIVE
EXTENSION SERVICE

SAVING SEEDS

Seeds can be saved from Flowers, Herbs, Shrubs, Trees and Vegetables

Any plant that flowers and produces seed, but some plants may not have viable seed (they are sterile)



A NOTE ON HYBRIDS

Many of the flowers and vegetables you purchase today (BUT not all) are hybrids, which is a cross from two different plants

Seeds from hybrid plants may be variable and generally will not be like the parent plant, you never know what you will get

Generally hybrid plants have been bred for a certain characteristic, more flowers, foliage color, compact size, disease resistance, etc.



HEIRLOOM SEEDS



Heirloom Seeds (non-hybrid and open pollinated) are from plants that have been grown for at least 50 years and the seeds were collected, saved and passed down for generations. Sometimes referred to as Heritage Seeds

Heirloom Seeds produce plants like the parent and have been selected for flavor, color and high yield

Heirloom plants are not as disease resistant as hybrid plants

TIPS FOR SAVING SEEDS

Collect seed only from the healthiest and most disease-free plants

Select seed from plants that have good characteristics such as tastier fruit, most productive, good flowering, foliage color, or more compact growth habit, etc.

Most seeds of Annuals and Perennials are best collected when the plant is ready to drop it naturally, if collected too early the seed may not mature enough to germinate when sown

TIPS (CONT.)

General indicator for collecting seed is when the seed head dries out, becomes brown and may slit open

To keep the seed pure , plant only 1 variety of the vegetable at a time or space at least 10 feet between different varieties. Some sources say 1 mile spacing

Saving tomato and cucumber seeds have a different procedure for collecting than most vegetables

Check your plants often if you want to collect the seed and be aware of the requirements for collecting seeds for that plant



COLLECTING SEEDS

The seed itself often darkens as it dries

Cut the dry seed heads off and keep them in a paper bag in a dry location until the seed heads are completely dry

When they are dry, tip the bag out onto a flat surface and separate the seeds from the casing and debris

Look out for small insects and make sure they do not get into the stored seed



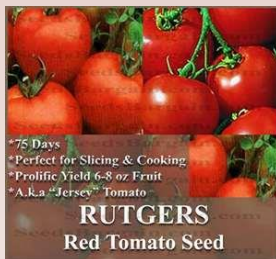
☀ Remember to keep the different varieties separated and label them with the name of the variety while drying



COLLECTING TOMATO SEEDS

Tomato seeds are covered by a soft gel coating and this stops the seeds from germinating until the gel has rotted away

If you save the seed without removing the gel, it will stick to whatever you dry it on - paper, for example - and will take longer to germinate when sown



EXTRACTING TOMATO SEEDS

What you will need:

Water

Fine Kitchen Sieve

Plate



Ripe Tomatoes - make sure they are fully ripe, undamaged and disease free, the best looking on the plant
May want to cover tomato with net to protect
protect

Glass Jar or a Clear Bowl - cover with plastic wrap with a couple of poked holes to allow air circulation

Halve the tomatoes and scoop the seeds into a glass jar. Fill it with water to cover the tomato seed at least 2 -3 inches above the seed, give it a good stir and leave it somewhere warm.

As the mixture sits warming, it will start to ferment. This breaks down the gel coating on the seed. The water will turn cloudy, mold may form on the surface of the water and it may smell nasty. This is desirable and means the process is working. Stir twice daily.

After three or four days, stir the mixture and pour off the scum, leaving clean seeds. Any bad seed will have floated to the top and can be tipped out with the water.



Refill the jar, stir again and carefully pour the water away. Do this until there are no more bits in the water, just seeds.

Tip the seeds into a kitchen fine mesh sieve and rinse under running water. Rub them over the sieve very gently to remove any remaining debris. Rinse the seed thoroughly

Wipe the bottom of the sieve to remove water and tip the seeds out on to a paper plate. Separate them so that none are touching. Label the plate and put it in a warm, dry place while the seeds dry. This should take no longer than 10 days



Heirloom Tomatoes for Oklahoma

- ✿ Cherokee Purple
- ✿ Arkansas Traveler
- ✿ Beam's Yellow Pear
- ✿ Cherokee Purple
- ✿ Pink Brandywine
- ✿ Red Brandywine
- ✿ Roma
- ✿ Rutgers



SAVING CUCURBIT SEEDS

☼ Cucumbers

☼ Watermelons

☼ Summer Squash

☼ Winter Squash

☼ Pumpkins

☼ Gourds



Cross pollination can be seen in some squashes and pumpkins.

Summer squash, pumpkins, gourds, and some types of winter squash which are species members of *Cucurbita pepo* may cross with one another

Muskmelon (*Cucumis melo*) and cucumbers (*Cucumis sativus*) belong to different species and will not cross with each other or members of the *Cucurbita* genus

Isolation Bags & Hand Pollination



SAVING MOST CUCURBITS

- ✿ Simply allow the fruit to mature, like a mature pumpkin or watermelon, and wash the seed off and let them dry.
- ✿ On Summer squashes, this means letting the rind turn hard first



In order to save seeds from Cucumbers, you must let them thoroughly ripen on the vine

They should stay on the vines until the vines are dead

The cucumbers will enlarge and turn yellow

Bring the cucumbers into the house and let them ripen further on a dry shelf in the pantry (or someplace out of direct sunlight)



When the cucumbers begin to turn soft, scoop out the seed mass and put in a jar or large glass jar of water

Proceed the same as for tomatoes



Heirloom Cucurbits

- ☀️ **Howden Pumpkin**
- ☀️ **Small Sugar Pumpkin**
- ☀️ **Black Beauty Zucchini**
- ☀️ **Golden Zucchini**
- ☀️ **Gold Summer Crookneck Squash**
- ☀️ **Table King Bush Acorn Squash**
- ☀️ **Vegetable Spaghetti Squash**
- ☀️ **Golden Zucchini Squash**
- ☀️ **Small Warty Gourds**



SAVING LETTUCE, GREENS AND HERB SEEDS

Prune the seed stalks off the plant prior to the seed heads becoming completely dry and brittle

Hang the seed stalks upside down in a brown paper (lunch bag or large grocery) stalks outside the bag, but the seed heads inside

Place a rubber band, or tie a string around the stalks and place in a cool dry location for 1 week

Shake the stalks inside the bag to collect the seed



Dill



Cardamom



OTHER VEGETABLE SEEDS

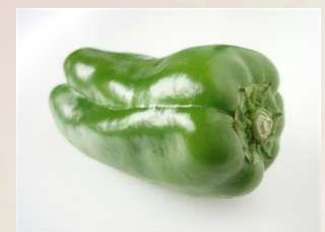
Peppers should be ripe and make sure they have reached maturity for a higher germination rate

Cut the pepper in half and scoop out the seeds with a spoon onto a paper towel, separate the seeds as much as possible

Let them dry for a few days in a dry location, bend the seed to see if it is flexible, if it's flexible dry a couple days longer

Peppers can be Self Pollinating, or Cross Pollinated by insects, so if you want to save the seeds from a particular type, grow in a container, or in a separate location to isolate the plant by at least 500 feet from other varieties Hot: *Black Hungarian* Sweet:

Buran, Jimmy Nardello



✿ **Eggplants** should be left on plant until well past ripe, dull and off-color. Just scoop seeds out and wash off and dry



Bush Beans, Pole Beans, Peas, Shell and Dry Beans

Pick the pods when they are brown, leave on the plant as long as the weather is good, otherwise cut the stems and hang them up in bunches somewhere to dry until the pods turn brittle or the following

Set the pods out in a dry place at room temperature for 2 weeks Flip the pods once daily to make sure they dry evenly on both sides, they are dry when the seeds rattle in the pod

Shell the beans from the pods and store properly

Royalty Purple



Cabbage family (Broccoli, Cauliflower) must let head go to seed, cabbage will be year or season 2



Okra you can just allow the pods to stay on the plant until they split open and remove seeds



✿ **Corn** just allow it to stay on plant as plant matures and corn ear matures, seed dries (think of Indian Corn)



☀️ **Carrots and Beets** are biennials producing seed after 2 years, you would have to leave a few plants in the ground for 2 years or seasons



SAVING TREE SEEDS

Seeds are usually collected from August through December, depending on the type of tree. Seeds are usually picked up off the ground except Elm, Maple, Box Elder and Ash which are picked by hand off the tree. Check online for [Collecting seed for hardwood establishment](#) and for information on the specific tree you desire

Burr Oak



Shumard Oak



White Oak



Pecan



Lacebark Elm



SEED STRATIFICATION

- ✿ Many tree, shrub, alpine seeds, and many perennials need a period of cold in order to germinate (called *stratification*), which replicates the winter chilling they would experience if they were growing naturally. Stratify seeds of Black Walnut, Black Oaks, Red Oak, Hickory, Pecan, Dogwood, Elm, Holly, Hackberry, Persimmon and many perennials.



STRATIFICATION PROCESS

Sow the seeds in moist seed compost mix (or peat moss) usually in a sealed plastic bag and leave for two to three days so that they can take up water and swell. Oak acorns caps should be loose and come off, Walnuts and Hickory nuts should be hulled and seeds dried

Put the bag in the coolest, but not freezing, part of the refrigerator. Stratification time can be anywhere from 3 to 18 weeks

Check the bag regularly, opening it to let air in and mixing carefully to keep the compost loose. Remove any seed that is showing signs of mold or rot



SEED SCARIFICATION

Some seeds have hard coats and need to be either soaked in hot water to soften, or have the shell chipped or abraded (called *scarification*) to absorb water. Tree seeds with very hard coatings, like Redbud, and Kentucky Coffeetree are often scarified prior to sowing to encourage germination

One of the easiest ways to scarify seed is to line a jar with sandpaper, put the seed in, lid the jar and then shake it until the seed casings have worn down enough so that water can be absorbed

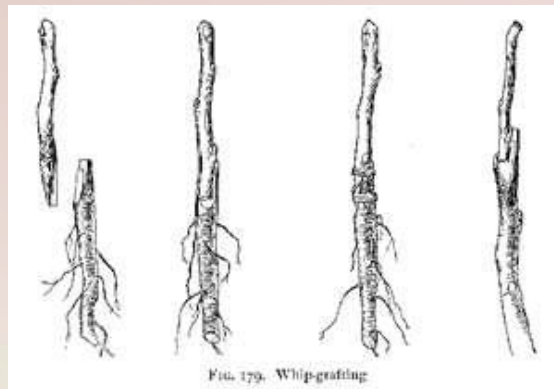


SAVING FRUIT TREE SEEDS

Seeds collected off tree hybrids, or grafted tree stock, can be sterile, or seeds collected from these trees will not be the same as the parent

Most of the fruit trees that can be bought on the market easily are grafted and have been improved either by dwarfing the tree, better fruit flavor, or to make the tree more disease resistant

For example, grafting apple trees can produce a dwarf tree that fruits earlier than a seedling tree and is more drought and cold tolerant



Grafted Apple



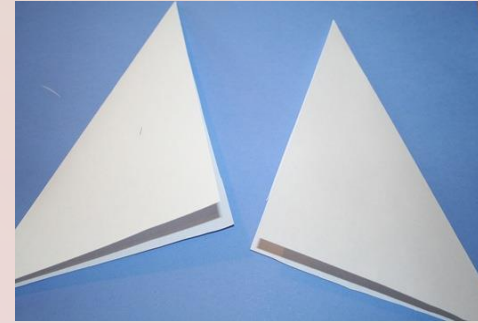
- ☀ Place the seed into a paper seed envelope, label with plant name, variety and date. Place the seed envelope inside a glass jar or freezer container with tight fitting lid (can put several packet in container) and place in the refrigerator. This is the procedure for all seed storage unless stated otherwise. You can place $\frac{1}{2}$ cup nonfat powdered milk in a cloth bag and place in the glass jar under the seed envelopes to absorb any moisture

Step #1: Start with a sheet of paper and fold down the middle, this will allow two seed packets per sheet of paper

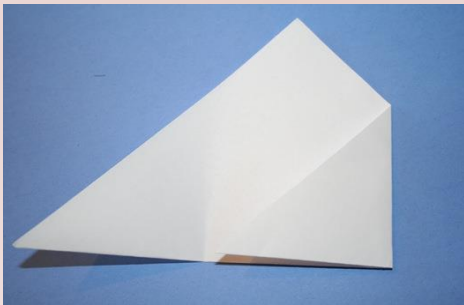


MAKING A SEED PAK

Step #2: Use scissors to cut out the individual triangles which will become your seed packets

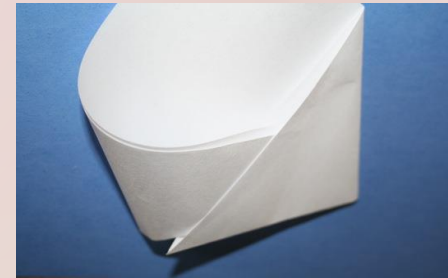


Step #3: Fold one corner one third of the way across the paper

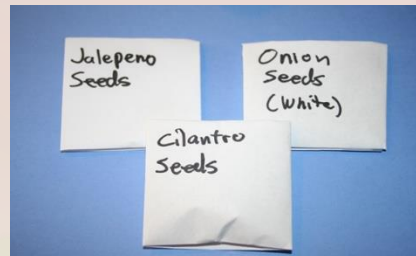


Make sure you add the variety name

Step #4: Insert the other corner inside the fold and fold flat



Step #5: Open top and pour in seeds, add a label, and fold over top



Put the date of the seed collection on the envelop

GERMINATION TESTING

- ✿ When it is time to sow your seed,
- ✿ check for germination rate



Check the percent of germination by placing 10 seeds on a paper plate that has a moist paper towel on top. Place another moist paper towel on top of the seed and top with another paper plate

Place in a warm location and keep moist, on top of the refrigerator is ideal

Check for germination after 2 days and check daily thereafter until most of the seeds are germinated. If 5 germinate, you have 50% germination, 8 equals 80 percent

This percentage of germination will tell you how many seeds to sow per pot, or per hole. 80% germination sow 2 per hole, etc.

HEIRLOOM SEED SAVER INFO

Southern Exposure Seed Exchange

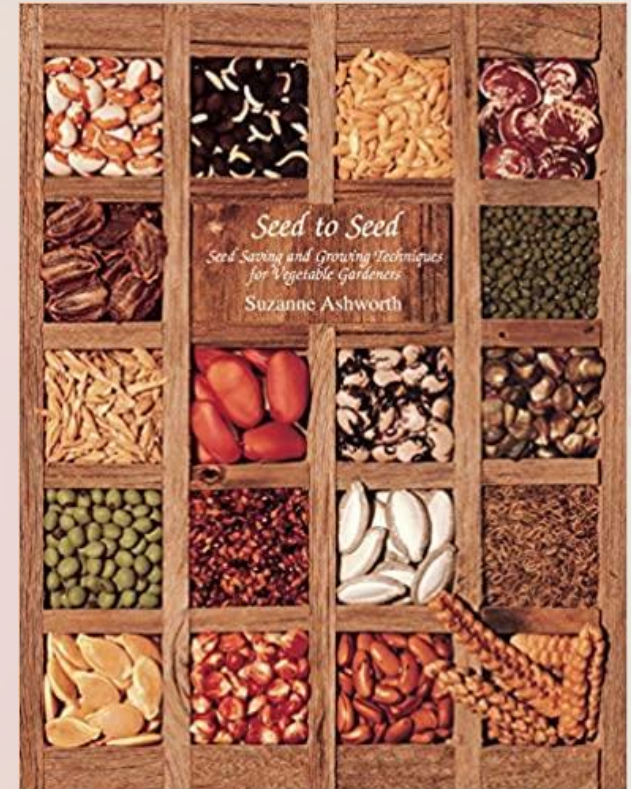
<http://southernexposure.com>

Seed Savers Exchange

<http://seedsavers.org/>

Baker Creek Heirloom Seed Company

<http://rareseeds.com>



“ SEED TO SEED” Susanne Ashworth

EXCELLENT book on seed saving and growing techniques

for Vegetable Gardeners

ANY QUESTIONS?



**Oklahoma County
Master Gardeners**

405.713.1125

okmganswers@gmail.com