The Art and Science of Saving Seeds

Whether your goal is to guarantee your own independence or be ready for the worst case scenario, be sure you understand the art and science of saving seeds. If you become proficient in this vital area, you'll have the means to harvest a treasure trove of fruits and vegetables season after season.

Heirloom/Non-GMO Seeds vs. Grocery Store Versions

Before you go collecting seeds, there are a number of areas we need to cover, beginning with the seeds themselves. Nowadays, there are two main categories of seeds:

- Heirloom/Non-GMO
- Grocery Store/GMO

The second version you're probably already familiar with. These are any seeds from fruits and vegetables you can pick up at the grocery store (though some stores may carry heirlooms as well). They are genetically modified, often by combining two different varieties of seeds to produce a hybrid. Companies do this because the hybrid seed will produce more fruits or vegetables that have a higher likelihood of surviving and are larger in size.

However, most people agree that heirloom seeds produce a much better tasting fruit or vegetable. If you've ever had a tomato from an heirloom seed, for example, you'd be surprised how much different it tastes compared to the commercially produced variety.

Furthermore, heirloom seeds most likely produce more nutritious foods too, something that would be of especial importance if you were to find yourself in a survival situation. Research is finding more and more that industrial farming may be able to produce phenomenal yields, but it's doing so at the cost of nutrients.

While commercial growers love the fact that non-heirloom seeds will produce plants that tend to provide their fruits and vegetables at once, this is generally inconvenient for homesteaders. Fortunately, heirloom plants deliver a gradual supply of produce.

Lastly, the reason you want to stick with heirloom seeds is because, as the name suggests, they've been handed down from one generation to the next. This speaks to their ability to survive and produce season after season, meaning you can replant for years and years to come without having to go out and find more seeds.

Also, industrial seeds from the grocery store won't last you for more than a season, making them impractical for survival purposes.

Which Fruits and Vegetables to Choose

When choosing fruits and vegetables to save seeds from, it's best to stick to self-pollinating crops as opposed to the cross-pollinating kind. This is because those that self-pollinate will produce plants just like those the seeds came from. As such, you're guaranteed to know what you'll be getting once you plant the seed. If you save and replant a cross-pollinating seed, you'll end up with a hybrid variety, which probably won't be ideal.

The best examples of self-pollinating seeds come from:

- Beans
- Peas
- Peppers
- Lettuce
- Tomatoes

Aside from being self-pollinating, these seeds are also annuals, meaning they will flower and produce a mature seed during the same year.

However, a number of other options exist too, like:

- Eggplants
- Apples
- Pears
- Plums
- Peaches
- Apricots
- Pomegranates

How to Harvest Seeds from the Best Self-Pollinating Plants

In the next section, we'll cover how to dry seeds and store them, so you have them on hand for years to come. However, before you can hope to approach that process, you need to know how to harvest your seeds. We'll also look at how to plant them, so once you decide it's time to use your seeds, all this hard work doesn't go to waste.

Beans

When harvesting bean seeds, pick them from pods that have ripened and then dried on the plant. You will want to check in on this regularly as if rain gets to these seeds first, they stand a good chance of growing mildew or actually sprouting in the pods.

Most dried pods should split for you without trouble, otherwise simply crumble the shells in your hands. After following the storage instructions below, you'll be able to keep these seeds for four years.

Different varieties of beans don't commonly cross-pollinate with each other. However, those of similar color should be separated with enough space to ensure their vines don't intertwine. This will make them easier to tell apart come harvest. Only leave one or two pods on each plant for seed harvesting. Too many will cause the plant to stop setting any more beans.

Peas

Don't harvest their seeds until their pods reach full size. Ideally, wait for them to dry on the vines, before picking the pods off. If they've already reached full size, though, you don't need to bother with waiting for them to dry, especially if rain could soon be a factor. Like with beans, their pods will give up the seeds easily.

Once dried, pea seeds are viable for planting for up to two years so long as you follow the instructions below.

When it comes time to plant, peas don't tend to cross-pollinate. However, you should separate individual plants by 50 feet to be on the safe side. You can also bag or cage them to be certain each plant remains preserved.

Peppers

Peppers are another vegetable you want to have ripened and dried completely before you harvest their pods. Plucking the seeds out then becomes quite easy. Obviously, if you're dealing with hot peppers, be sure to wash your hands thoroughly after dealing with their seeds.

When dried out properly, per the below instructions, pepper seeds will keep for between two and three years.

Those peppers of the same species will definitely cross-pollinate with one another. However, peppers don't do so across varieties, meaning you can plant a hot pepper and sweet pepper species right next to each other without issue. Unless you want to separate the same species by 500 feet, it makes sense to grow these plants within a cage, where they won't be able to cross-pollinate.

Lettuce

Any mature lettuce plant will have seeds to give up. Look for dried seed heads on the plant. These are easy to pluck off and empty the seeds from. Do this every few days or simply wait until most of the heads have dried out and hang the entire plant upside down in a paper bag. This is especially important to do once rain comes.

After properly drying and storing them, lettuce seeds will keep for up to three years.

Though they generally don't cross-pollinate, lettuce has been known to under some circumstances, so 25 feet is suggested to ensure these plants remain self-pollinating.

Tomatoes

Never harvest tomato seeds until they have become ripe enough to eat. Tomatoes present a special challenge, though, as you can't merely take their seeds and then begin drying them. That's because they are covered in a germination-inhibiting substance. Left to nature, the fruit of the tomato plant would be subject to fermentation, which would remove the gelatinous substance that covers the seed.

Fortunately, we can imitate the same thing, which we'll cover in a moment. Once properly fermented, dried and stored away, tomato seeds will keep for up to four years.

Although you can usually grow most tomato plants without the need for isolation, "currant" (e.g. cherry tomatoes) and "potato-leafed" (e.g. Brandywine) specimens may cross-pollinate with other currant or potato-leafed versions. Standard types can be grown in abundance, but only grow one currant or potato-leafed tomato plant at a time (otherwise separate them by 500 feet or cage them).

Fermenting Seeds

Fermenting the seeds of tomato plants is essential, but you should also do it if you wish to store eggplant or seeds from the squash family.

Begin by scooping the seeds out, including any pulp that comes with it, and putting them in a jar. Then add about half as much water as there is seed and pulp. Store this combination in a warm area (somewhere between 75 to 85º F) for three to five days. To be on the safe side, though, begin checking on them at two days. If you leave the seeds in water for too long, they'll germinate and no longer be any good to you (recall that the water is washing away the germination-inhibiting substance, so once it's gone, the seeds are ready to start growing).

What you're looking for is bubbling and/or white mold growing on the surface of the mixture. Once you've noticed that for a couple days, pour the mixture into a bowl of water. The pulp, growth and any dead seeds should remain at the top. Living seeds should sink to the bottom. Then all you need to do is scoop them out, wash them off and you have your seeds ready for storage.

How to Store Them for Multiple Years

One of the great things about many seeds is that you can keep them for years, knowing full well they'll produce nutritious food when you need them. That being said, there are important steps involved in storing seeds so that they'll actually be viable sources of food in the years to come.

First, they must be kept in airtight containers, where the natural elements will be kept at bay. Freezer and refrigerators are best, though some basements or other types of storage areas may work. However, you absolutely cannot keep these seeds at room temperature. Doing so will

result in the embryo inside consuming its own stored sugars kept in the seed casing. Ultimately, the seed will either die or be too weak to germinate, making it as good as dead for our purposes.

Before you can store your seeds, you need to make sure that they have been appropriately dried out. While you'll take certain steps to guard them from moisture once they're stored away, it's essential you also dry them out because moisture will speed up the aging process and keep the seeds from germinating.

Fortunately, it's easier than ever to dry out seeds so that they are no more than 2% to 3% moisture. All it takes is silica beads, which you can find online at an affordable price. This material—which you may have also seen in your latest box of shoes or beef jerky—is used to keep areas around it dry. So it will work wonders on your seeds.

Just put your seeds in a glass jar with an equal amount of silica beads, by weight. After a week, they'll be as dry as possible and you're ready to store them.

You have four main options for storing seeds:

- Freezer: this is ideal as it puts the seeds in suspended animation, increasing the amount of time you can store them for. However, when you are ready to plant them, let the seeds thaw for a few days first.
- Refrigerator: if you choose this option, be sure to put the seeds in a zip-loc bag to keep them safe from the air. Then place that bag in a brown bag or bubble mailer. Either option will ensure light isn't able to compromise the seeds inside.
- Vacuum Sealing: many preppers are fond of using vacuum sealers and here is yet another opportunity to do so. Whether this method is better than freezing them is up for debate. However, it is likely that this is the best way to preserve seeds if you live in a climate of high humidity. Just be sure you use a Mylar bag or place them in dark container afterwards to keep light out.
- Paper Envelope: a paper envelope by itself will do little more than block light. Instead, you'll have to seal the envelope and then place it in a waterproof container that features gasketed lids. A mason jar is a good option too. You can also use desiccant in the container as this substance will pull moisture from the air. Once you have the seeds sealed up in a container, place them somewhere cool and dark.

With the above guide, you should have all you need to know in order to harvest seeds from the most popular plants, ferment them if necessary, dry them and then seal them away for years until you with to plant them. One last piece of advice: don't plant all your seeds at once, in case you make a mistake. After practicing the entire process a few times, though, you'll find that the art and science of saving seeds becomes second nature.

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