

Optimizing the Giant Pumpkin Seed Harvest

Joe Ailts, 2018

Following the excitement of giant pumpkin weigh offs comes the process of harvesting seed. In today's competitive giant pumpkin environment, it is reasonable to conclude that there may be more value in the seeds than the pumpkin itself, meaning that optimizing the seed harvest to ensure maximum viable seed for the future is of utmost importance. This article will share ideas on how to properly harvest, dry, and store giant pumpkin seed.

In the Northern hemisphere, most giant pumpkins will be ready to give up their seed throughout the month of October. Giants on display through Halloween will often preserve their seed well inside the cavity, so long as the cavity has not been breached and temperature extremes (notably excessively hot temperatures) have been avoided.

For reference, it takes about 50 days for a pumpkin seed to mature inside the growing pumpkin. Those who had a pumpkin succumb to mother nature earlier in the season need only to count 50 days after the pollination date to determine if the seeds are mature enough to germinate the following year. Those with early-harvested seed should perform a germination test on a couple to determine viability. Pumpkins that make it across the finish line in October are generally 90-110+ days old and therefore have had plenty of time to mature their seeds.

Seed Harvest & Separation

Use a machete, saw, or large knife to open up the pumpkin. It doesn't really matter where you cut, as it is hard to predict where the seeds are attached to the pumpkin walls. Ultimately, you'll lose a few to slicing and dicing process, but these losses are part of the process and insignificant.

Seeds are contained within the stringy fibrous tissues clinging to the inner walls of the pumpkin. The most efficient method of extraction is to simply use your hands to gather the stringy fibrous material. Suspending over the top of a catch basin (large boiling pot, 5-gallon pail or a wheelbarrow works just fine), begin wringing the "pumpkin guts" as if you were kneading dough. After a little massaging, the seeds will begin to separate from the guts. Gravity, combined with the kneading process, will cause them to fall out of your hands into the catch basin.

Once the seeds have been separated from the guts, transfer the seeds to the aforementioned boiling pot. Fill the pot $\frac{1}{2}$ full with cold water and once again use the dough kneading process to help further clean the seeds. The seeds should float, and detached pumpkin guts will naturally stick to your hands. Remove your hands from the pot and rinse the guts from your hands down the drain. The seeds will feel very slimy. Do not try to remove the slime from the seeds, that will have to stay. The goal of this step is to remove any residual guts from the seed pile.

When you are satisfied with the separation process, use a colander to retain the seeds and drain the water.

Seed Drying



Setting up the appropriate drying process is the most important step in a quality seed harvest. Don't skimp on the steps outlined below, or you risk the quality of your seed. Pour the seeds from the colander onto a porous solid surface that allows drainage. A vented pizza pan elevated a few inches off a hard surface is the ideal vessel for the drying process. Using a household fan, set it up so constant airflow is moving across the seed. Try to ensure seeds are not piled on top of one another, as this impedes the drying process. Use additional pans if necessary to achieve single-layer thickness.

Seeds will require just under two weeks of continual airflow in a normal household, kept at 68-70 degrees with normal humidity. Warmer temperatures will dry the seed faster, however supplemental heat is not necessary. Low humidity environments are also more desirable,

however there's no need to go out of your way to create a lower-than-household humidity environment. Airflow is an absolute necessity here to prevent spoilage. Without constant airflow, bacteria and fungi **will** begin growing on the surface of the seed, leaving a rainbow of various splotches on your prized collection. You will know that the seeds have neared optimal dryness when they begin shedding the thin, transparent coat (see photo). You can accelerate the finishing of this process by once again dough-kneading the seeds. This will cause the transparent film to flake off the seeds. It is recommended to do this outdoors with a steady breeze, as this film can make quite a mess. With the film removed, another day or two under the fan will have them prepared for ideal storage moisture.



Seed Storage

Storing giant pumpkin seeds is really quite simple. Package them up in a vented Ziplog bag and stash in a cool, dry location. No need for refrigeration, freezing, or any other specialized environment. Kept in a shoebox at standard household temperature, with no humidity extremes, will ensure the seeds remain viable for a few years at minimum. Do keep the bag vented, as any residual moisture trapped inside could jumpstart bacteria and fungi living in hibernation on the seed coat. Freezing temperatures will not damage the seed, but frequent swings in temperatures could lower germination quality. Consistency in temperature and dry conditions are the key to success here.

Seed Quality



There are instances where conditions inside the pumpkin cavity, pre-seed harvest, are conducive to seed germination, especially if the pumpkin experienced a significant warm up following a cold spell and/or the seeds spent an inordinately long time inside the pumpkin. Prematurely germinated seeds are easy to identify, as they have split their seed coat and the pointed tip of the seed has the beginnings of a root emerging. Once this process has started, it cannot be reversed and these seeds

must be discarded from the pile. There will also be a fraction of the seeds that will not fill out. While the seed appears intact on the outside, there's nothing on the inside. When you pick up the seed between thumb and forefinger, you should notice some mass. If the seed feels like hollow bubble wrap, it can be discarded.

You can also perform a "drop test" to determine seed quality. Pick up a seed and drop it from 3-4" above a hard surface. Full, viable seeds will have a discernible lower pitch to its bounce off the hard surface, where hollow, non-viable seeds have a distinctly higher pitch due to their low density.