



American Gourd Society, Inc.

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Harvesting Gourd Seeds

Gourds cross-pollinate very easily, resulting in great surprises! But what if you want to grow a particular variety? There are fewer and fewer seed suppliers offering the full range of gourd varieties. By following the steps below, you can produce some special gourds with seeds that are true to type and have good germination rates. This year, consider growing a few of these *seed* gourds!

Ensuring “True” Seeds

Hand-pollinating alone won't guarantee that seeds are true. If you want to know the parentage of your seeds, so you can grow a particular variety next season, you'll want to *isolate* the flowers, both male and female, from insects (the random pollinators). By isolating flowers and ensuring controlled pollination, you can produce “pure” seed gourds. This is best done with the earliest fruit, as the seeds need plenty of time to mature. Each seed gourd will contain many seeds, so you'll only need to do this process for a few gourds from each plant.

There are several ways to prevent cross-pollination. Here's one effective method:

In the afternoon, identify a few male and female flower buds that will open that evening. Cover them with small mesh drawstring bags (such as are used for party favors). With colored bags, you can code flowers by gender or on different plants, for easier identification at night.

Later that evening, hand-pollinate: Take the bags off of a pair, pull the petals from the male, and flick the dusty pollen on the female. Carefully and quickly cover her up again, to prevent bugs from interfering. In a day or two, remove the mesh bag and mark that young pepo (the tiny gourd) with a colored string or yarn tied loosely around the stem. If pollination is successful, you'll want to be able to identify this seed gourd at harvest time.

Some people simply tape or twist the female blossom closed after hand-pollinating, but this won't completely prevent cross-pollination. If you have plenty of space, separating varieties by at least a half a mile will also work. Planting non-gourd crops between varieties will also help reduce cross-pollination, as insects will shed some of the gourd flower pollen while visiting the non-gourd blossoms.

When To Harvest

Allow the seed gourds to mature to the *fullest* extent. Harvest them after the vine has completely died, withered and brown from the ground to the gourd; it's no longer offering any nutrients to the gourd. A vine-killing frost may occur, but don't allow these special gourds to freeze solid. At this stage the seeds have a high moisture content, so freezing causes cells in the seeds to expand and burst, making them non-viable. If you have problems with diseased plants and aren't sure of

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the pathogen, don't share seeds. Some infections are seed-borne, and you wouldn't want to spread disease.

Wait for at least 20 days (minimum) to 30 days after the seed gourd was harvested, before removing the seeds. The seeds will continue to develop during this time. If seeds are harvested much later than this point, a lower germination rate may result.

Many growers simply use seeds from dried gourds. Seeds harvested after the gourd has dried may have a lower germination rate, and can't be cleaned well (getting them wet will start the germination process). For people sharing or selling seeds, harvesting them when the gourd is still green, 20-30 days after gourd harvest, is a better option.

Seed Harvest

Wipe the outside of the gourd with soap and water or a diluted bleach solution to minimize microbial contamination. Cut an opening big enough for your hand, keeping future use of the gourd in mind; it will likely still be usable when dry.

Harvest the seeds. Some will be pale and undeveloped; these can be discarded. Rinse seeds right away (before they dry) repeatedly with cold water, until they are clean. A wide-meshed sieve is useful for this.

Dry seeds thoroughly on a screen until *completely* dry. Depending on the temperature and humidity of the room, this can take anywhere from three days to two weeks. Test a few: using pliers, see if you can break a seed open. Adequately dried seeds will snap, not bend. The contents of a healthy seed will be white, and fill the seed case completely, without gaps. Store the dried seeds in a tightly-sealed glass jar with desiccant. It can be helpful to add humidity indicator strips inside the jar to monitor moisture inside the jar. Once quite dry, the seeds can be frozen, but it's not necessary. Keep them in a cool place. Storing thoroughly dried seeds in the freezer can increase the viability of seeds, but they should not go through a thawing process except before planting. Gourd seed that is kept dry and stored in a cool dark place will last for six years or more.

Be sure you label your gourds and seeds accurately throughout the process. Make notes of the pollination date, the varieties that were crossed (if you are crossing varieties on purpose), and anything you know of the previous generations. Taking a photo of the gourd at seed harvest may be useful. Good record-keeping is important; you may be raising prizewinners!

Written by Graham Ottoson, Gourderlandia, along with Marlie Lukach, Cornell University, PhD student, and the AGS Seed Team