

This project receives technical assistance from Cogin to Seed. The Kentucky Rural-Urban Exchange and the Foundation for Innovation and Sustainability support the development and publication of the guide.



**Creativity.** This guide was developed as part of an effort to share seeds with new growers. It would not be possible without the labor and ingenuity of our cushaw forebears.

- More cushaw gardeners are sharing seeds.
- Widely known in areas where it is traditionally cultivated.
- The history, types, and recipes of cushaw squash are more tasty, nutritious squash are being grown.
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## The Commonwealth Cushaw Project



This booklet is made in partnership with  
**Going to Seed**



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- Diverse Seeds
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the development and publication of the guide.

In 2021, Mak'W. Kid'd of Handarrow began gathering seeds in Kentucky. Lauren Traitz and Richard Simikluk of Renew Appalachia joined for the 2024 season, focusing on seed increase, outreach, and training.

**Diversity.** Prioritize strong stems, healthy leaves, and vigor, but also look for differences, and vigor, nutrient needs, and diversity.

**When to evaluate.** New varieties, focus on seed increase, they have two pairs of true leaves and begin to metabolize nutrients.

**Soil pH.** Use soil test results to make the best use of nutrients, but they can grow outside that range.

**Some growers allow excess seedlings to compete for survival, while others practice thinning; if you have space in another location, you might also relocate or give away excess seedlings.**

**Site and soil.** Cushaws can benefit from amendments like aged compost, but they are traditionally grown with minimal amendments, treatments, and irrigation.

**Succession sowing.** Wild seeds often germinate over a longer period of time than domesticated crops, and can mimic this by sowing seeds every week or two during planting seasons.

**Schedule.** Seedlings thrive in late spring and early summer after danger of frost, when the soil reaches 60° Fahrenheit.

**Planting Cushaws, Continued**

**Established garden beds,** it is often practical to sow directly in the soil, 1 inch deep.

**Direct sowing vs. starts.** With small amounts of seed or odds of success, starting seeds in containers can improve the odds of success. With hundreds or more seeds and new beds, starting seeds in containers can improve the odds of success.

**Planting Cushaws.** Continue in dry climates, keep the soil moist until the vines establish roots.

## Sharing and Returning Seeds

**Community seed projects succeed when gardeners share seeds from successful plants.** Sharing is central to the ongoing, ancient work to maintain diverse, locally-adapted crops around the world.

- Submit seeds to the Commonwealth Cushaw Project at [cushawguide.handbarrow.org](http://cushawguide.handbarrow.org).
- Submit to Going to Seed via [goingtoseed.org](http://goingtoseed.org).
- Consider researching nearby seed libraries and swaps.

*The following information will be helpful when sharing your seeds.*

<b>Plant and species name:</b>	Cushaw, <i>Cucurbita argyrosperma</i>
<b>Variety or original source:</b>	Commonwealth Cushaw Project
<b>Grower name:</b>	
<b>Garden Location/Year:</b>	
<b>Email or phone:</b>	
<b>Describe the parent plants or fruits with any significant traits:</b>	

the soil. Try to avoid disturbing the roots of nearby plants.

**How to thin.** Use scissors or secateurs to cut the vine above rows, spaced 3 feet apart, or planted in hills spread 6 feet apart.

**Final spacing.** Cushaws usually have a vine habit, and vines can reach 50 feet long. They are often planted in 6-foot rows, spaced 6 feet apart.

**Open pollination and crosses.** Crosses among cushaws are common and often desirable. *C. argyrosperma* can cross with other species of *Cucurbita* squash but it is rare.

**Light.** At least 6 hours of direct sunlight daily. A little shade can help.

**Soil.** Use soil with at least 6 hours of direct sun daily. If you have space in another location, you might also relocate or give away vines need at least 6 hours of direct sun outside that range.

**Water.** Minimize irrigation, but they are traditionally grown with aged compost, but they are traditionaly grown with irrigation, some growers allow excess seedlings to compete for water.

**Site and soil.** Cushaws can benefit from amendments like aged compost, but they are known to be *Cucurbita moschata*, a different botanical species. This guide focuses on *C. argyrosperma* cushion squash. Some varieties have been bred for quality edible seeds, others for prolific summer squash, or long-storing pumpkins. Some cushion squash have been bred for frost tolerance, some for fall storage, and some for summer squash.

**Soil preparation.** Some varieties have been bred for frost tolerance, some for fall storage, and some for summer squash.

**Succession sowing.** Wild seeds often germinate over a longer period of time than domesticated crops, and can mimic this by sowing seeds every week or two during planting seasons.

**Schedule.** Seedlings thrive in late spring and early summer after danger of frost, when the soil reaches 60° Fahrenheit.

## Planting Cushaws

## Why Save Local Seeds?

*You are invited to join the simple and ancient tradition of local seed stewardship.*

In this guide, you will learn how to cultivate cushaw squash and save seeds for cushaws that grow stronger and more delicious with each generation.

**Localization.** Over time, seeds learn your soil, local pests, climate, and your habits, and will thrive with less effort.

**Strength through community.** Share seeds, stories and knowledge. Every gardener adds to our local food security.

**Select for what you love.** Grow food that matches what matters to you—flavor, sustainability, resilience, or all three.



<b>Days to germination:</b>	3 - 7
<b>Light:</b>	A small amount of shade can be helpful. At least 6 hours of direct sunlight daily. A small amount of shade can be helpful.
<b>Planting dates:</b>	After the last danger of frost, when soil reaches 60° Fahrenheit.
<b>Days from planting to harvest:</b>	60 for summer squash, 90-120 for winter squash and seeds.

Some cushion squash have been bred for quality edible seeds, others for prolific summer squash, or long-storing pumpkins. Some varieties have been bred for frost tolerance, some for fall storage, and some for summer squash.

*Cushaw*, like *Golden* *Argyrosperma* *Cushaw*, are now known to be *Cucurbita moschata*, a different botanical species. This guide focuses on *C. argyrosperma*.

*Cushaw* dominates this region. It has traditionally been grown in the approximate region from Mexico to the Southwestern United States.

*Cushaw*, *Argyrosperma*, or *Cushaw squash*, was domesticated in Mexico. It has traditionally been grown in the Americas since the Aztecs.

*Cushaw* is a growing and seed saving guide.

## Cushaw Squash

### A Growing and Seed Saving Guide



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## The Commonwealth Cushaw Project



Digital version at  
[cushawguide.handbarrow.org](http://cushawguide.handbarrow.org)



**7.** The edges of a squash piece will brown when the piece is fully roasted. Once the pieces cool, use a scoop to separate the flesh from the rind. Then use a potato masher, food processor, or other approach to mix the flesh until it reaches puree consistency.



**6.** If all pieces are approximately the same thickness, only up to 1.5 inches thick, the timer is needed. Fruit at room temperature with flesh downward. For neck pieces, this means placing the cut side downward. Place a single layer on the tray with the insides parchment paper, lightly coat the flesh with the mixture.

**4.** Mix oil and salt in a small bowl. Using a brush or piece of parchment paper, lightly coat the flesh with the mixture. Place a single layer on the tray with the insides facing down. **5.** Place a single layer of parchment paper over the tray with the insides facing down. **6.** Preheat the oven to 400 degrees Fahrenheit.

**7.** The edges of a squash piece will brown when the piece is fully roasted. Once the pieces cool, use a scoop to separate the flesh from the rind. Then use a potato masher, food processor, or other approach to mix the flesh until it reaches puree consistency.

1. Preheat the oven to 400 degrees Fahrenheit.
2. Cut the fruit into relatively flat pieces. Cusaws often have necks that are thicker than the flesh around them. Separate the neck can be split in half and roasted longer in a separate tray.
3. Line the baking tray with parchment paper or foil.



**Equipment and Supplies:** Oven, baking tray or casserole dish, parchment paper or aluminum foil, knife, spoon, bowls, potato masher (or equivalent).

**Ingredients:** Cusaws, cooking oil or lard, salt, recipes.

**Roasted pieces:** Roasted pieces can be enjoyed like a baked sweet potato, or processed into puree that is called for in many squash recipes.

## Roasted Cusaw and Puree

## Dry Process for Seeds



1. Cut open the squash and scoop out seeds.
2. Use your fingers to separate the seeds from the pulp.
3. *Optional:* Rinse seeds in a colander under a stream of water, agitating to remove any pulp stuck to the seeds.
4. Spread seeds in a single layer on a plate, cookie sheet, or screen.
5. Stir every day or two to dry evenly and prevent sticking. Use a fan to increase air circulation if necessary.
6. Seeds are dry enough when they snap crisply when broken in half.
7. Store seeds in an airtight container kept cool and dark.

**Humid climates:** Climate is an important consideration for drying seeds. In humid climates, a dehydrator set to 100 degrees or less can help seeds dry enough for storage. Some seed savers employ reusable desiccants to mitigate humidity.

## Saving Seeds: Year by Year

If you are just starting to grow cushaws, you may only harvest one or two fruits. One term for this stage of an adaptation project is "seed increase", when the grower might save seed from most or all fruits, even if some seem better than others.



### How does this approach help crops adapt to an environment?

**Year 1:** Gardeners begin sharing seeds. Some plants will do better than others in some gardens. New growers save seeds from any plants that produce seeds, despite challenges.

**Year 2:** As adaptation begins, the harvest often begins to increase. Growers are more selective with seed saving.

**Year 3 and beyond:** Growers save diverse seeds with traits they love, such as flavor, color, shape, or early ripening. Seeds are shared within communities and via seed share programs like Going to Seed. This allows the cycle of adaptation to continue.

1. Cut the neck can be split in half and roasted longer in a separate tray.
2. Cut the neck can be split in half and roasted longer in a separate tray.
3. Line the baking tray with parchment paper or foil.



**Cutting:** Fruit should be cured 5 - 7 days in warm, ventilated air (60° Fahrenheit). Handle and avoid using it as a handle.

**Note:** Raw squash "triggers dermatitis or "sauash hands" for some people.

**Harvest and Storage**

## Where are cushaws from?

The cushaw, *Cucurbita argyrosperma*, is one of five domesticated species in *Cucurbita*, the genus of all squash. All *Cucurbita* are native to the Americas. Those five species were domesticated from wild types across at least six different places and times in North and South America.

Wild squash were more common before the ice age ended. They declined due to climate changes and the extinction of animals that ate wild squash.

The first known domesticated squash is *C. pepo* in Mexico 8 - 10,000 years ago. Squash was important to many pre-colonial American cultures. That word is from the Narragansett *askutasquash*, meaning "eaten raw or uncooked". *Cushaw* may also be from a native language, but this is unproven.

### Proposed origin: Jalisco, Mexico in North America.

*Cucurbita argyrosperma* was likely domesticated from wild gourds by 5,100 years ago in the area of Jalisco, Mexico. It may have been domesticated as early as 8,700 years ago.

This overview adapts portions of Wikipedia's article "*Cucurbita argyrosperma*", and is published with the CC BY SA 4.0 license.

Some growers in temperate climates harvest the vines after the first frost when the vines die back. If a freeze is predicted, the fruit is harvested when the vines are still providing nutrients. The eating quality of fruit on the vine may continue to improve as long as 90 days after pollination, if the vine is healthy, and the peduncle attached to the fruit is still removably attached to the vine my continue to improve the fruit for months at room temperature. Then when a large fruit is harvested, cut and clean the whole cushaw, remove the half for later use.

**Winter squash can be cut and frozen raw.** You might store harvested early. Store fruit for a month before removing seeds, especially if it was harvested early.

**Seeds continue to mature in storage.** Over the winter, fruits should be periodically checked for soft spots or mold. Eat those starting to spoil first. In warm, ventilated air (60° Fahrenheit) fruits are ideal, outdoors or indoors.

**Curing:** Fruit should be cured 5 - 7 days in warm, ventilated air (60° Fahrenheit) helps protect fruit from insects and mold. Leave it above the fruit. The peduncle helps to harvest, cut the peduncle 1 - 3 inches "sauash hands" for some people.

**Note:** Raw squash triggers dermatitis or "sauash hands" for some people.



Cushaws can be used as summer squash for about two weeks after the flower is pollinated. The minimum safe age to harvest seeds for planting next season is 60 days throughout the season. Young leaves and tips of the vines are also eaten.

Cushaw blossoms can be enjoyed raw or cooked through out the season. Young leaves and tips of the vines

## When to Harvest

## The Power of Diversity

Some plants will be better able to resist pests and make good fruit in your conditions. The surest way to find out which is to grow diverse populations.

For most of human history, people adapted crops to new places through seed saving and genetic diversity. This guide offers practices and philosophy for cultivating cushaws using traditional "landrace" approaches. Landrace growers judiciously embrace cross-pollination to develop and maintain robust, resilient crops that adapt to local conditions.

## Local Seeds and Microbial Allies

Throughout its life, a plant builds partnerships with millions of microscopic allies. Plant roots release chemicals to attract fungi that improve water and mineral access, bacteria that fight disease, and other allies it finds in soil.



When we save seeds, the seeds incorporate microbial allies, giving the next generation an advantage when planted in the same garden.