LOCAL GROWING & SEED SAVING ADVICE

Peppers and Eggplants

Oshkosh Seed Savers
A GROWING COLLECTIVE

This guide provides growing and seed saving instructions specifically for gardeners of the Fox Valley in Wisconsin.

Seed from "open pollinated" or "heirloom" varieties can be saved and replanted to produce offspring like the parents, as long as they have not crossed with plants of a different variety. Seed from hybrid varieties is not usually worth saving, since the offspring will differ noticeably from the parents. Hybrid seed packets are usually labeled "hybrid" or "F1." Some species require isolation and/or hand pollination to prevent crossing with another variety.

Overview of saving pepper and eggplant seeds

Peppers and eggplants are discussed together in this guide because they are botanically related and planting timelines, cultivation issues and seed saving methods are similar.

While it is not difficult to save seed from peppers and eggplants, collecting true-to-type seeds without intervention requires 1000 feet between varieties, more isolation distance than most suburban/urban gardeners have.

▶ Instead of distance, mesh barriers are used to isolate individual flower buds, entire plants, or plant clusters of the same variety.

Pepper and eggplant flowers are self-fertile, which means they do not need pollinators or second flowers to produce fruits, but if exposed to pollinators cross pollination is likely.

Plan ahead for seed saving

For eggplants (not peppers), plan to cultivate a few extra plants if you want to save seed without decreasing the harvest for eating. To save seed from eggplants, fruits need to be fully mature, a stage well beyond the eating stage. When plants detect late-ripening fruits, they slow down production of other fruits, which gives you fewer to eat. This is not an issue for peppers, because their seed fruit harvest stage is similar to the fully ripe eating stage.

To maximize genetic diversity in your saved population of seed, be sure to collect seed from as many plants as possible. If you do not have at least six plants of the same variety, coordinate with other gardeners growing the same variety and mix saved seed at the end of the season before redistributing.

Since you will isolate flowers and plants around the time of outdoor transplant, be sure to have a supply of fine mesh netting or small mesh bags (organza party favor bags work well).

Start indoors

Pepper and eggplant seeds should be started indoors the first week of April (about two weeks before tomatoes) and transplanted into the garden after the danger of frost has passed (early June).

Plant two seeds into each cell (filled with seed starting mix) or soil block and cover with one-eighth of an inch of sand or seed starting mix. Keep moist and warm to facilitate germination. Ideal germination temperature for peppers and eggplants is 85 F. Warmth can be added with a heat mat, lights, placement near radiator, or indoor sunshine. Take care to avoid overheating the seeds or seedlings.

Seeds do not need light to germinate, but the seedlings will need light to grow after they sprout. Use indoor grow lights or placement in a sunny window. Check young seedlings daily and maintain moist soil. If you have great germination, select for vigor and health by snipping off the weaker ones with a scissors (pulling them may disturb the roots of the seedlings you want).

Pot-up

If you start seeds in small soil blocks or containers, you will probably need to "pot-up" (move into larger containers) at least once before it is time to transplant outdoors. When roots have filled the container, it's time

to pot-up. Each time prioritize the most vigorous and healthy plants, discarding those that are not thriving.

Harden-off

To minimize transplant shock, sunburn, and wind damage, set your seedlings outdoors in late May (the week or two before you plant them in the ground). Start with about one hour outdoors on day one, two hours on day two, three to four hours on day three, etc. This gets them gradually used to outdoor life. If heavy rain or high winds are in the forecast, keep seedlings indoors to avoid damage.

Transplant

Plant seedlings outdoors in the ground after the danger of frost has passed and the soil has warmed, typically the first week in June. Plants should be about two feet apart within and between rows.

Overcast days and evenings are better times for transplanting than sunny days. Water seedlings well immediately before and after transplanting. If possible, transplant shortly before it rains.

To keep soil moist, mulch around the transplants unless there are a lot of slugs present. Withhold mulch until plants are established if slugs are a problem.

At the time of planting, fencing out rabbits will be necessary for peppers and eggplants. Chicken wire/ poultry netting that is at least three feet tall with one-inch holes or smaller is generally adequate. Many products marketed as "rabbit" fencing have holes large enough for bunnies to get through.

When transplants are about eight inches tall, pinch off the shoot tip. This encourages the side branches to develop, creating shorter, sturdier plants that are less susceptible to blowing over or breaking.

Tend the plants

If it doesn't rain, water transplants about once per week, with frequency depending on how warm and sunny it is. Put your finger in soil to gauge moisture below soil surface.

Once established, pepper and eggplants generally do not need regular watering, especially if the plants are surrounded by a thick layer of mulch. These plants benefit from staking or trellising to prevent breakage during high winds and keep fruits off the ground, away from slugs and other pests. Put stakes near plants and loosely tie plants to stakes when fruits are small. Trellising fully loaded plants is difficult.

Set up barrier isolation for seed saving

▶ Barrier isolation, with either mesh netting or individual mesh bags, can be set up at any point after transplanting, provided all open flowers have been removed, since these may have crossed with plants of a different variety.

MESH NETTING

Fine mesh netting can be used to cover plants or entire rows and prevent pollinators from accessing flowers. Wire hoops help support the mesh above the plants. Use rocks, bricks, logs, or other heavy items to seal the mesh to the ground in order to prevent pollinators from getting in. Take care to avoid tearing the netting with the weights. As plants grow, you might need to adjust the netting to give plants room to expand.

FINE MESH BAGS

Alternatively, individual unopened flower buds can be covered with fine mesh bags (like organza party favor bags) to prevent access by pollinators. Tie bags gently but snugly around flower buds or clusters of buds before they open. This method works especially well with eggplants, since the flower buds are relatively large. Smaller pepper flowers could be covered as clusters instead of individuals. Aim for at least six seed fruits on each plant because it is common for some fruits to not make it to full maturity.

Once the petals fall off and tiny fruits form, gently remove the bags or mesh netting and use a twist tie or string (tied loosely around stems) to mark the fruits that developed in isolation--these will be the seed fruits.

Collect and clean seeds

PEPPERS

Harvest seed from pepper fruits when they are fully ripe. For many pepper varieties, the mature fruit is uniformly red. If frost is imminent or pests are attacking fruits, you can harvest somewhat early and let fruits sit indoors at room temperature to finish ripening. In any case, after harvest, let fruits sit at room temperature for a couple of weeks to ensure seeds are fully developed. It is alright if the fruits shrivel, but do not let them rot. Take the seeds out if you notice mold forming.

Wear disposable gloves when extracting spicy pepper seeds. Pepper seeds do not usually need washing. Spread out seed to dry on absorbent paper or screen in an area with good air circulation for at least one month.

EGGPLANTS

The mature stage for eggplant seed is much later than the eating stage. Let the seed fruits stay on the plants as long as possible. The fruits may grow to be much larger than

they are at the eating stage. The fruit skin will turn from shiny to dull and there may be a color change.

As with peppers, eggplant fruits can be allowed to sit indoors at room temperature for weeks after harvest. Eggplant seeds may be slimy and need washing in a fine mesh sieve. Spread out seed to dry on absorbent paper or screen in an area with good air circulation for at least one month.

Store and share seeds

When completely dry, label seeds and store in a cool dry place out of direct sunlight. At room temperature, they should remain viable for several years. For longer term storage, freeze in air tight containers or bags.

If you are a Seed Saver growing a variety from the OSS Collection to share with the organizers, please label fully dried seeds with your name, the variety name, harvest date, how many plants contributed seed, and location where the fruits were grown.

Local Growing & Seed Saving Advice: Peppers and Eggplants was written by Jason Mills and Julia Chybowski, designed by Lynn Stuart, and illustrated by Cassie Edwards.

NOTES