

# Seed Saving Chart

The isolation distances and plant populations listed below are the optimal numbers for garden-scale seed saving. That said, the best way to build solid seed skills is a combination of researching the ideal methods and experimenting with your own approach. The only real mistake you can make is to not try. Have fun.

	FAMILY, GENUS, SPECIES	POLLINATION	ISOLATION DISTANCE	# OF PLANTS	SEED LIFE	MISCELLANEOUS INFORMATION
<b>Annual Vegetables</b>						
<b>Arugula</b>	Brassicaceae ( <i>Eruca sativa</i> )	Insect	1/2 mi.	40	5 yrs.	Easy outcrosser for beginners
<b>Bean</b>	Fabaceae ( <i>Phaseolus vulgaris</i> )	Self	20 ft.	10	4 yrs.	Good for beginners
<b>Bean, Fava</b>	Fabaceae ( <i>Vicia faba</i> )	Self	50 ft.	20	4 yrs.	Primarily selfers, but insects do pollinate
<b>Corn</b>	Poaceae ( <i>Zea mays</i> )	Wind	1–2 mi.	100	6 yrs.	Seed matures 6–8 weeks after eating stage
<b>Cucumber</b>	Cucurbitaceae ( <i>Cucumis sativus</i> )	Insect	1/2 mi.	10	8 yrs.	Male and female flowers
<b>Eggplant</b>	Solanaceae ( <i>Solanum melongena</i> )	Self	50 ft.	10	6 yrs.	Harvest seed from overripe fruit
<b>Lettuce</b>	Asteraceae ( <i>Latua sativa</i> )	Self	20 ft.	10	3 yrs.	Good for beginners
<b>Melon</b>	Cucurbitaceae ( <i>Cucumis melo</i> )	Insect	1/2 mi.	10	7 yrs.	Does not cross with watermelon
<b>Mustard</b>	Brassicaceae ( <i>Brassica juncea</i> )	Insect	1/2 mi.	40	5 yrs.	Will cross with wild species
<b>Pea</b>	Fabaceae ( <i>Pisum sativum</i> )	Self	20 ft.	25	5 yrs.	Good for beginners
<b>Pepper</b>	Solanaceae ( <i>Capsicum spp</i> )	Self	100 ft.	10	4 yrs.	Primarily selfers, but insects do pollinate
<b>Pumpkin</b>	Cucurbitaceae ( <i>Cucurbita pepo</i> )	Insect	1/2 mi.	10	7 yrs.	Male and female flowers
<b>Radish</b>	Brassicaceae ( <i>Rapnanus sativas</i> )	Insect	1/2 mi.	50	5 yrs.	Can cross with wild radishes
<b>Spinach</b>	Amaranthaceae ( <i>Spinacia oleracea</i> )	Wind	2 mi.	50	4 yrs.	Male and female plants
<b>Squash</b>	Cucurbitaceae ( <i>Cucubita spp</i> )	Insect	1/2 mi.	10	7 yrs.	Cross only within species
<b>Tomato</b>	Solanaceae ( <i>Lycopersicon spp</i> )	Self	10 ft.	10	5 yrs.	Good for beginners
<b>Watermelon</b>	Cucurbitaceae ( <i>Citrullus lanatus</i> )	Insect	1/2 mi.	10	6 yrs.	Does not cross with other melon types
<b>Biennial Vegetables</b>						
<b>Beet</b>	Amaranthaceae ( <i>Beta vulgaris</i> )	Wind	1 mi.	30	6 yrs.	Crosses with chard
<b>Broccoli</b>	Brassicaceae ( <i>Brassica oleracea</i> )	Insect	1/2 mi.	40	5 yrs.	Crosses with all oleraceae
<b>Brussels Sprout</b>	Brassicaceae ( <i>Brassica oleracea</i> )	Insect	1/2 mi.	40	5 yrs.	Crosses with all oleraceae
<b>Cabbage</b>	Brassicaceae ( <i>Brassica oleracea</i> )	Insect	1/2 mi.	40	5 yrs.	Crosses with all oleraceae
<b>Cauliflower</b>	Brassicaceae ( <i>Brassica oleracea</i> )	Insect	1/2 mi.	40	5 yrs.	Crosses with all oleraceae
<b>Carrot</b>	Apiaceae ( <i>Daucus carota</i> )	Insect	1 mi.	60	3 yrs.	Crosses with Queen Anne's Lace
<b>Celery, Celeriac</b>	Apiaceae ( <i>Apium graveolens</i> )	Insect	1/2 mi.	30	5 yrs.	Difficult to overwinter
<b>Kale</b>	Brassicaceae ( <i>Brassica napus</i> )	Insect	1/2 mi.	40	5 yrs.	Russian and Siberian varieties
<b>Kale</b>	Brassicaceae ( <i>Brassica oleracea</i> )	Insect	1/2 mi.	40	5 yrs.	Scotch and Tuscan varieties
<b>Kohlrabi</b>	Brassicaceae ( <i>Brassica oleracea</i> )	Insect	1/2 mi.	40	5 yrs.	Crosses with all oleraceae
<b>Leek</b>	Amaryllidaceae ( <i>Allium ampeloprasum</i> )	Insect	1 mi.	20	2 yrs.	Seed tightly encased in seed head
<b>Onion</b>	Amaryllidaceae ( <i>Allium cepa</i> )	Insect	1 mi.	50	2 yrs.	Very short seed life
<b>Parsley</b>	Apiaceae ( <i>Petroselinum crispum</i> )	Insect	1 mi.	30	5 yrs.	Seed heads shatter easily
<b>Parsnip</b>	Apiaceae ( <i>Pastinaca sativa</i> )	Insect	1 mi.	20	1 yr.	Extremely short seed life
<b>Rutabaga</b>	Brassicaceae ( <i>Brassica napus</i> )	Insect	1/2 mi.	40	5 yrs.	Crosses with some Russian kales
<b>Swiss Chard</b>	Amaranthaceae ( <i>Beta vulgaris</i> )	Wind	1 mi.	30	6 yrs.	Crosses with beets
<b>Turnip</b>	Brassicaceae ( <i>Brassica rapa</i> )	Insect	1/2 mi.	40	5 yrs.	Crosses with broccoli raab

**Isolation distance:** Varieties of the same species can cross-pollinate, producing offspring with new characteristics. To keep seed varieties “pure,” seed savers create “isolation”—planting related varieties at appropriate distances to minimize the chance of crossing.

**Number of plants:** To maintain genetic integrity, it's important to save seed from a diverse population of individual plants. The optimum population size differs depending on whether a variety is wind or insect pollinated, or self-pollinated.



For more seed saving resources, check out our Community Seed Toolkits at [www.seedmatters.org](http://www.seedmatters.org)

# Six Tips for Saving Seed

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Seed saving can be complicated, but if you start with these solid tips you'll be on the path to saving and sharing quality seed:

- 1 Know your seed.** Don't save seeds from a hybrid variety (often labeled as "F1" in catalogs or seed packets). They won't grow "true to type" to the original parent, and the next generation of plants will be highly unpredictable in overall type, quality, and flavor.
- 2 Save information, not just seed.** Keep good records from the start. The information you pass on is as important as the seed. Make note of common and Latin names; dates of planting, plant maturity, and seed harvest; whether off-types were culled; population size and isolation distance; and any other important observations about the variety.
- 3 Watch for cross-pollination.** Different varieties of crops of the same species can cross-pollinate, producing offspring with different characteristics than the original variety. To keep a variety "pure," you should plant in isolation to minimize the chance of crossing. Crops that are wind or insect pollinated (often called "outcrossers") require a greater isolation distance from other varieties of the same species than those that have flowers that self-pollinate (often called "selfers"). *See the Seed Matters Seed Saving Chart for isolation distances.*
- 4 Consider plant populations — numbers count.** To maintain the genetic integrity of a variety, it's important to save seed from a diverse population of individual plants. The optimum population size differs depending on whether a variety is wind or insect pollinated, or self-pollinated. *See the Seed Matters Seed Saving Chart for population sizes.*
- 5 Choose ideal plants for ideal seed.** Healthy, vigorous plants are more likely to produce healthy, vigorous seed. Save seeds from disease-free plants to help prevent seed-borne disease. Also, collect seeds from plants that show ideal characteristics (shape, color, dates to maturity) that match the variety's description.
- 6 Make it last.** Good storage practices will increase the long-term viability of your seed. Store only seed that has been checked for pests and is fully mature and dry. The storage area should be dark, dry, cool, and protected from pests.



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