

Seed Saving Instructions

Arugula (*Eruca sativa*) - Arugulas will cross-pollinate. Separate varieties by ¼ mile. Allow plants to bolt and form seed stalks. Seed heads may need to be protected from bird damage and rain when drying on the plants. Seeds are produced over a 2-3 week period and will require repeated harvesting.

Beans (*Phaseolus vulgaris*) - Bean flowers are self-pollinating and almost never cross-pollinate. As a precaution never plant two white seeded varieties side-by-side if you intend to save seed because crossing may occur but not be visible. It is always best to save seed from plants that ripen first and are free from disease. Harvest seed pods when completely dry, crush in a cloth or burlap sack, and winnow the seeds from the chaff.

Beet (*Beta vulgaris*) - Biennial. Beets will cross-pollinate. Varieties must be separated by ½ mile from other beets the second year when going to seed. Beets are fairly frost tolerant and will overwinter in mild climates if well mulched. In northern climates trim leaves to 2" and store roots in slightly damp sawdust or sand in a root cellar over the winter. Roots store 4-6 months at 32-40° F. Replant in the spring and harvest seed heads when dry.

Broccoli (*Brassica oleracea*) - Biennial. Broccoli will cross-pollinate with all other Brassica oleracea, so isolate by 1 mile the second year when going to seed. Do not harvest heads on plants you intend to save for seed. Carefully dig the plants and pot them in sand. Store plants between 32-40° F. Plant back out in early spring and allow to bolt. Harvest seed pods when dry and clean by hand.

Brussels Sprout (*Brassica oleracea*) - Biennial. Brussels Sprouts will cross-pollinate with all other Brassica oleracea, so isolate by 1 mile the second year when going to seed. Do not harvest heads on plants you intend to save for seed. Carefully dig the plants and pot them in sand. Store plants between 32-40° F. Plant back out in early spring and allow to bolt. Harvest seed pods when dry and clean by hand.

Cabbage (*Brassica oleracea*) - Biennial. Cabbage will cross-pollinate with all other Brassica oleracea, so isolate by 1 mile the second year when going to seed. Do not harvest heads on plants you intend to save for seed. Carefully dig the plants and pot them in sand. Store plants between 32-40° F. Plant back out in early spring and allow to bolt. Harvest seed pods when dry and clean by hand.

Carrots (*Daucus carota*) - Biennial. Carrots will cross-pollinate, so isolate ¼ mile from other carrots and Queen Anne's Lace the second year when going to seed. Dig up carrots in the fall before a hard frost. Trim the tops to 1" and store roots in slightly damp sawdust, sand, or leaves in a root cellar over the winter. Replant in the spring and harvest seed heads when dry.

Cauliflower (*Brassica oleracea*) - Biennial. Cauliflower will cross-pollinate with all other Brassica oleracea, so isolate by 1 mile the second year when going to seed. Do not harvest heads on plants you intend to save for seed. Carefully dig the plants and pot them in sand. Store plants between 32-40° F. Plant back out in early spring and allow to bolt. Harvest seed pods when dry and clean by hand.

Corn (*Zea mays*) - All corn varieties are wind-pollinated and will cross with each other. Varieties should be hand-pollinated or isolated by 1 mile to ensure purity. Allow ears to dry on the plants, harvest, and shell.

Cucumbers (*Cucumis sativus*) - Cucumbers will cross-pollinate, so isolate ¼ mile from other cucumbers. Fruits for seed should ripen past edible stage and begin to soften and turn yellow. Cut lengthwise, scoop out seeds, wash, and dry. Seeds are dry when they break instead of bending.

Eggplant (*Solanum melongena*) - Eggplants will cross-pollinate, so isolate ¼ mile from other eggplants or plant in insect-proof cages covered with screen. Let the fruits grow far past maturity. Seeds are much easier to remove from overripe fruits. Most seeds are brown and are usually located in the bottom portion of the fruit.

Kale (*Brassica oleracea*) - Biennial. Kale will cross-pollinate with all other *Brassica oleracea*, so isolate by 1 mile the second year when going to seed. Do not harvest heads on plants you intend to save for seed. Carefully dig the plants and pot them in sand. Store plants between 32-40° F. Plant back out in early spring and allow to bolt. Harvest seed pods when dry and clean by hand.

Lettuce (*Lactuca sativa*) - There is only a slight chance of cross-pollination between lettuces. As a precaution separate by 25' from other varieties that are going to seed. Allow plants to bolt and form seed stalks. Seed heads may need to be protected from bird damage and rain when drying. Seeds are produced over a 2-3 week period and will require repeated harvesting.

Lima Beans (*Phaseolus lunatus*) - Lima beans will cross with other limas, but not common garden beans (*Phaseolus vulgaris*). To ensure absolute purity, isolate from other blooming varieties by 1 mile. It is always best to save seed from plants that ripen first and are free from disease. Harvest seed pods when completely dry, crush in a cloth or burlap sack, and winnow the seeds from the chaff.

Melons (*Cucumis melo*) - Melons will cross-pollinate, so isolate ¼ mile from other “melons” (cantaloupes, muskmelons, honeydew, snake melon, and Armenian cucumbers will all cross). Always save seeds from disease-free, early ripening melons. Wash seeds from ripe melons in a strainer and dry. Seeds are ready to store when they break instead of bend.

Onion (*Allium cepa*) - Biennial. Onions cross-pollinate and should be isolated by 1 mile from other onions going to seed. Select only the best bulbs for seed. Bulbs store 3-6 months at 32-45° F. Plant out bulbs in early spring and allow them to form seed heads. When the heads start to dry, cut off, dry further, and thresh.

Peas (*Pisum sativum*) - Peas should be separated by 50' to ensure pure seed. Select the healthiest plants for seed. Allow pods to dry on the plant before harvesting and separate seeds from pods by hand. If birds start eating the seeds before the pods are completely dry, they can be harvested slightly green and brought indoors to dry.

Peppers (*Capsicum annuum/baccatum/frutescens*) - Peppers will cross-pollinate, so separate by at least 500' or plant in insect-proof cages covered with window screen. Select peppers that are ripe, fully colored, and show no signs of disease to save for seed. Remove seeds from core and place on a paper plate to dry.

Radish (*Raphanus sativus*) - Radishes will cross-pollinate and must be isolated by 1/2 mile or planted in insect-proof cages covered with screen. Radish seed stalks will grow up to 3' tall. Always discard the early bolting plants, since they are not the best plants to save for seed. The seed stalk is harvested when the stalk and pods are dry. Seeds can then be separated by hand.

Spinach (*Spinacia oleracea*) - Spinach will cross-pollinate with wind-blown pollen from other spinach varieties. Commercial seed crops are separated by 5-10 miles to ensure purity, but home gardeners can reduce that distance. Harvest seeds when they are completely dry on the plant. It may be necessary to wear leather gloves because the seeds can be very prickly.

Squash (*Cucurbita argyrosperma/maxima/ficifolia/moschata/pepo*) - Squash within the same species will cross-pollinate, so isolate species by 1/4 mile. Seeds should be taken from fruits that have gone past maturity by 3 weeks. Remove seeds, wash, and let dry. (Note: There are five species of squash: *C. argyrosperma*, *C. maxima*, *C. ficifolia*, *C. moschata* and *C. pepo*. This allows you to grow five different species of squash and save pure seed in the same garden).

Swiss Chard (*Beta vulgaris*) - Biennial. Varieties must be separated by 1/2 mile from all other *Beta vulgaris* when going to seed. Will overwinter in mild climates if well mulched. In northern climates trim leaves to 2" and store roots in sawdust or sand in a root cellar. Roots will store 4-6 months at 32-40° F. Replant in the spring and harvest seed heads when dry.

Tomatillo (*Physalis ixocarpa*) - Tomatillos will not cross-pollinate. Select fully ripe fruits to save for seed. Pick at least one ripe fruit from each of several plants. Squeeze seeds and juice into a strainer and wash, spread on a paper plate, and dry.

Tomato (*Solanum lycopersicum/pimpinellifolium*) - Cross-pollination between modern tomato varieties seldom occurs, except in potato leaf varieties which should be separated by the length of the garden. Do not save seeds from double fruits or from the first fruits of large-fruited varieties. Pick at least one ripe fruit from each of several plants. Squeeze seeds and juice into a strainer and wash, spread on a paper plate, and dry.

Turnip (*Brassica rapa*) - Biennial. Varieties must be separated by 1/2 mile from all other *Brassica rapa* when going to seed. Will overwinter in mild climates if well mulched. In northern climates trim leaves to 2" and store roots in sawdust or sand in a root cellar. Roots will store 2-4 months at 32-40° F and 90-95% humidity. Replant in the spring and harvest seed heads when dry.

Watermelon (*Citrullus lanatus*) - Watermelons will cross-pollinate. Separate varieties by 1/4 mile or hand-pollinate. Always select disease-free early maturing melons to save for seed. Remove seeds from ripe melons, thoroughly wash in a strainer, and dry.

Herbs, Flowers, and Sunflowers by Latin Names

Agastache foeniculum (Lavender Hyssop) - Collect the seeds after seed heads turn brown and can be easily crushed by hand. Carefully clip seed heads with pruning shears to prevent seed loss due to shattering. When dry, seeds should fall readily from the heads.

Althaea rosea (Hollyhock) - Harvest seed heads once they have turned brown. Wear gloves and long sleeves since hollyhock plants and seeds slough off tiny hairs that are irritating to the skin. Gently rub the seed heads between your hands and winnow off the chaff.

Allium schoenoprasum/tuberosum (Chives, Garlic Chives) - Chives are a perennial that produces seed each season. Chives will not cross with any other Alliums. The blossoms are insect pollinated and then go on to form seed heads. When the heads start to dry, cut off, dry further, and thresh.

Amaranthus caudatus/cruentus (Amaranth) - The hundreds of small sand-like seeds are contained in the rope-like trusses. When the trusses start to dry, pick and dry further in a well protected area.

Anethum graveolens (Dill) - Dill heads ripen unevenly and shatter easily. Individual umbels (flower heads) are harvested as they mature. Rub the umbels gently to free the seed. Any small stem pieces or other debris can be winnowed or screened. Dill seeds do not need any further treatment.

Asclepias tuberosa (Butterflyweed) - Seeds are ready to harvest when the blooms begin to turn brown and dry. When the heads are completely dry, gently crush them between your hands and then carefully winnow away the chaff.

Borago officinalis (Borage) - Borage is very easy to save seed from. Just keep a close eye on the blooms, and when they begin to fade and turn brown, pick the seeds. Be sure to get them before they fall as Borage is very good at seeding itself for the next season, even without your help.

Calendula officinalis (Calendula) - Calendula is very easy to save seed from. Just keep a close eye on the blooms, and when they begin to fade and turn brown, pick the seeds. Be sure to get them before they fall as Calendula is very good at seeding itself for the next season, even without your help.

Celosia cristata (Amish Cockscomb) - When the blooms dry out cut them off and hang upside down in bunches. The seeds are contained in the heads between the velvety flowers. Once the heads are dry and crisp, they can be lightly hand-crushed, and the seed winnowed from the chaff.

Cleome hassleriana (Cleome, Spider Flower) - Spider Flowers reliably produce lots of seed. When the spider-like blooms dry cut them off and hang upside down in bunches. Once the seed heads are dry and crisp they can be lightly hand-crushed and winnowed from the seed chaff.

Coriandrum sativum (Cilantro) - Cilantro will cross-pollinate with other varieties of cilantro so varieties must be separated by 1/2 mile while flowering. Seeds can be harvested when they are dry on the plant.

Digitalis purpurea (Giant Spotted Foxglove) - Very easy for seed savers. When the blooms fade, a seedpod is formed, turning from green to brown. Once the seedpod turns brown, cut off and allow to completely dry before cracking open and removing the hundreds of small sand-like seeds.

Echinacea purpurea (Coneflower) - Coneflowers will produce lots of seed but you must beat the birds. When the blooms dry out, cut them off and hang upside down in bunches. The seeds are contained in the heads between the spikes. Once the heads are dry and crisp, they can be lightly hand-crushed, with gloves on for protection, and the seed winnowed from the chaff.

Eschscholzia californica (California Poppy Mixture) - Extremely easy for seed savers. When the blooms fade, a long narrow seedpod is formed, turning from green to brown. Once the seedpod turns brown, simple cut off and allow to completely dry before cracking open and removing the hundreds of small sand-like seeds. Store seeds in a cool dry area.

Helianthus annuus & *cucumerifolius* (Sunflowers) - Sunflowers will cross-pollinate and must be separated by 1/2 mile to ensure pure seed. Harvest the heads when they have completely filled out, lost all of their petals and the backs begin to turn brown. It may be necessary to cover heads to protect them from birds. Allow to dry in a protected area away from birds and then shell by hand.

Lupinus perennis (Lupine) - When seed pods begin to turn yellow and the seeds loosely rattle inside when shaken, they are ripe. Pick and finish drying in a well protected area.

Mirabilis jalapa (Four O'Clocks) - Four O'Clock seed is very easy to save. Just keep a close eye on the blooms and when they begin to fade and turn brown, pick the seeds that have formed. Be sure to collect before the seeds fall to the ground. The dark Four O'Clocks seeds blend in with the soil, making them hard to see.

Nepeta cataria (Catnip) - Seeds are ready to harvest when the blooms begin to turn brown and dry. When the heads are completely dry, gently crush the heads between your hands and then carefully winnow away the chaff.

Ocimum basilicum (Basil) - Basil will cross-pollinate with other varieties of basil and must be separated by 150' while flowering. Plants form seed capsules containing four seeds. Allow seed capsules to dry, then harvest and separate by hand.

Petunia multiflora (Petunia) - Very easy for seed savers. When the blooms fade, a seedpod is formed, turning from green to brown. Once the seedpod turns brown, cut off and allow to completely dry before cracking open and removing the hundreds of small sand-like seeds.

Pimpinella anisum (Parsley)- Parsleys will cross-pollinate, so isolate by 1 mile the second year when going to seed. Dig up parsley roots in the fall before a hard frost. Trim the tops to 2" and store in sawdust, sand or leaves. Parsley roots will store 3-4 months when kept between 32-40° F. Plant out in the early spring. Harvest seed heads when dry, and separate by hand.

Rudbeckia hirta (Black-Eyed Susan) - Seeds are ready to harvest when the blooms begin to turn brown and dry. When the heads are completely dry, gently crush the heads between your hand and then carefully winnow away the chaff.

Salvia officinalis (Sage) - Seeds are ready to harvest when the blooms begin to turn brown and dry. When the heads are completely dry, gently crush the heads between your hands and then carefully winnow away the chaff from the seeds.

Stachys lanata (Lamb's Ear) - Lamb's Ear is a perennial producing seed each season. Watch the small purple flowers closely, when they begin to fade, cut off the stalks, and dry further in a protected area over newspaper. The seed is very small. Plants will also self-sow.

Tagetes patula/tenuifolia (Marigold) - Marigolds will produce lots of seed in a similar fashion to a Zinnia or Calendula. When the blooms dry out, cut them off and hang upside down in bunches. The seeds are contained in the heads and, once dry and crisp, can be lightly hand-crushed and winnowed from the seed chaff.

Viola x wittrockiana (Historic Pansies Mixture) - Violas are well known for being self-seeders. Seeds can be collected by cutting the entire plant in late summer after the blooming has stopped. Dry plants on a piece of paper and collect the tiny black seeds.

Zinnia elegans (Zinnia) - Zinnias will cross-pollinate. Gardeners should only grow one variety at a time to save pure seed, or isolate varieties by ¼ mile. Seeds are ready to harvest when the blooms begin to turn brown and dry. The seeds are contained in the very center. When the heads are completely dry, gently crush the heads between your hand and then carefully winnow away the chaff.

Saving seed from flowers and herbs: Most flowers and herbs are self-seeding and volunteer. Seed must be harvested from dry pods before they shatter, usually 2-3 weeks after flowering. Dry the seeds in a shaded area for one week, then seal in an air-tight container and store under refrigeration.

For additional seed planting instructions, *A-Z Guide to Growing Flowers: from Seed to Bloom* by Eileen Powell contains detailed techniques for over 600 annuals, perennials, and bulbs.

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