

Plant Families: Families define the basic form of the flower parts of plants. All plants with the same flower (and reproductive) structure are in the same family. Similar seed saving techniques are used for the members within a family.

Genus: More closely related plants within a plant family. Crosses between genera are rare but can occur.

Species: Botanically recognized plants with similar fruit, flowers, and leaves. Plants within one species will readily cross with each other.

Cultivars: A “cultivated variety”, or a variety of plants within a species that has been selected by humans to cultivate. When saving seeds we strive to maintain the purity of a cultivar.

Alliaceae: biennial and perennial.

- Chives - perennial herb.
- Garlic – not grown from seed, plant individual cloves in fall, harvest mid-summer.
- Leeks – biennial, but will only cross with other leeks, not onions. In cold winter areas, lift and store in very cool, but not freezing location.
- Onions – biennial, don’t save seed from plants that bloom the first year. Will cross with other onions, but not leeks and chives. In cold regions, lift and store in a cool, dry place with good ventilation and replant in spring.
- Shallots – usually propagated by bulb division, some varieties set seed.
- Ramps – wild spring onions, flower stalk emerges in summer after leaves die back.

Amaranthaceae (includes Chenopodiaceae): – Annuals and biennials that require isolation when blooming. Caging or row-cover is the best isolation method for leafy crops.

- Beets - biennial, will cross with chard and other varieties of beet. In cold winter areas lift, trim leaves to 2 inches from root, and store planted in damp sand in cool, humid location. Watch for rot and replant in spring.
- Swiss chard – biennial, will cross with beets and other varieties of chard. In cold winter areas lift, trim leaves to 2 inches from root, and store planted in damp sand in cool, humid location. Watch for rot and replant in spring.
- Spinach – annual, isolation needed only if growing more than one variety of spinach
- Amaranth - annual

- Orach – annual, isolation needed only if growing more than one variety of orach.
- Celosia - annual

Apiaceae: most are biennial and need a winter or cold period to flower. Flowers are umbels, and the best seed will come from the primary umbel.

- Carrots - biennial – will cross with other carrots and Queen Ann’s Lace. Roots may need to be lifted and stored in the refrigerator or cold root cellar in the north.
- Celery and Celeriac – biennial, will cross with each other.
- Cilantro/Coriander - annual
- Dill – annual or biennial, self-seeds readily.
- Fennel – perennials often grown as annuals, may produce seed the first year if planted early.
- Parsley – biennial, curly and flat leaf usually don’t cross.
- Parsnips – biennial – will cross with other parsnips and wild parsnips.
- Lovage – perennial, but store saved seeds in the freezer for at least a month before sowing to stratify.

Asteraceae: large family of annual and perennial plants.

- Endive – biennial, in cold winter areas lift, trim leaves to 2 inches from root, and store planted in damp sand in cool, humid location. Watch for rot and replant in spring.
- Lettuce – annual, perfect flowers and usually will not cross pollinate with other lettuce varieties.
- Sunchokes – usually propagated by tubers
- Sunflower – annual, will cross-pollinate with other sunflowers
- Calendula - annual
- Zinnia - annual
- Coneflowers - perennial

Brassicaceae: annuals and biennials, cross pollination is possible among several of the species. Seed pods ripen from the bottom up, so mature pods at the base may need harvesting before they shatter, while green pods at the top need to ripen longer.

- Arugula - annual, isolation needed only if growing more than one variety of arugula
- Asian greens (bok choy)
- Broccoli – annual, isolate by bagging or caging with other members of the same cultivar.
- Brussels sprouts - biennial, in cold winter areas lift and store planted in damp sand in cool, humid location. Watch for rot and replant in spring.
- Cabbage – biennial, in cold winter areas lift and store planted in damp sand in cool, humid location. Do not harvest leaves from plants intended for seed. Watch for rot and replant in spring.
- Cauliflower – biennial, but difficult to save seed in cold winter areas. Plants do not respond well to being lifted and stored.
- Collard greens - biennial, in cold winter areas lift and store planted in damp sand in cool, humid location. Watch for rot and replant in spring.
- Kale – biennial, hardy, can be overwintered outdoors in cold winter areas if mulched. Leaves can be harvested lightly from plants earmarked for seed.
- Kohlrabi - biennial, in cold winter areas lift and store planted in damp sand in cool, humid location. Do not harvest leaves from plants intended for seed. Watch for rot and replant in spring.
- Mustard greens – annual, cage or bag to isolate.
- Radishes – annual (spring radishes) or biennial (winter radishes such as daikon), isolation needed only if growing more than one variety of radish.
- Turnips – most are biennial, in cold winter areas lift, trim leaves to 2 inches from root, and store planted in damp sand in cool, humid location. Watch for rot and replant in spring.

Curcubitaceae: annual, have male and female flowers. Female flowers have what appears to be a small fruit (the ovary) at the base of the flower. Hand-pollinate and tape blossoms shut.

- Cucumbers

- Melons
- Pumpkins
- Squash
- Watermelon
- Gourds

Fabaceae: annual, have perfect flowers and are self-pollinating. Cross-pollination can occur, but rarely. Allow pods to dry on vine but harvest seed before they shatter. Good choice for beginning seed savers.

- Beans
- Fava beans
- Peas
- Soybeans
- Peanuts
- Sweet Peas
- Lupines – annual and perennial varieties.

Lamiaceae: annuals and perennials, most have perfect flowers and do not require isolation.

- Basil – almost all culinary types are annual. Will cross with other basil, so isolate if growing more than one variety.
- Mint – usually propagated by division. Seed grown types tend to be weedy and of uncertain parentage.
- Marjoram - Culinary types are usually annual.
- Oregano - Culinary types are usually annual.
- Thyme - perennial
- Rosemary – perennial but will freeze out in cold winters
- Lemon Balm - perennial
- Catnip – annual in cold winter areas, perennial in warm areas.

- Lavender - perennial
- Coleus - -annuals in all but tropical regions. Crossing between varieties can occur.
- Monarda - perennial
- Salvia (Sage) – culinary type is perennial, flowering types are perennial or annual.

Malvaceae: annual or perennials.

- Okra - annual, isolation needed only if allowing more than one variety of okra to bloom.
- Hibiscus - perennial
- Marshmallow – perennial herb
- Hollyhocks - perennial and biennials

Poaceae: corn is the crop in this family most commonly grown by gardeners, also includes most annual grains such as rye, wheat, rice, and oats.

- **Corn:** Corn plants have separate male flowers (tassels) and female flowers (the ears). Pollen formed on the tassels is carried by the wind to the silk (stigmas) produced by the ears. To hand-pollinate place paper bags over selected ears before the silk appears. Secure the bottom of each sack with a rubber band or length of twine. When pollen shakes away from the tassels easily cut one off and rub it against the silk of ears growing on different plants. Then replace the bags until the ears mature.

Solanaceae: annual, most have perfect flowers and are self-pollinating, but cross pollination can sometimes occur from insects. Caging plants or bagging flowers will assure purity.

- Tomatoes
- Eggplant
- Peppers
- Tomatillos
- Petunias – Species usually grow true to type, hybrids and doubles will not.
- Nicotiana