

Only seeds from open-pollinated, not hybrid, plants will produce the same crop next year.

The “Advanced” gardener's vegetables normally require more than one year for seed production and mandate separation to prevent cross-pollination.

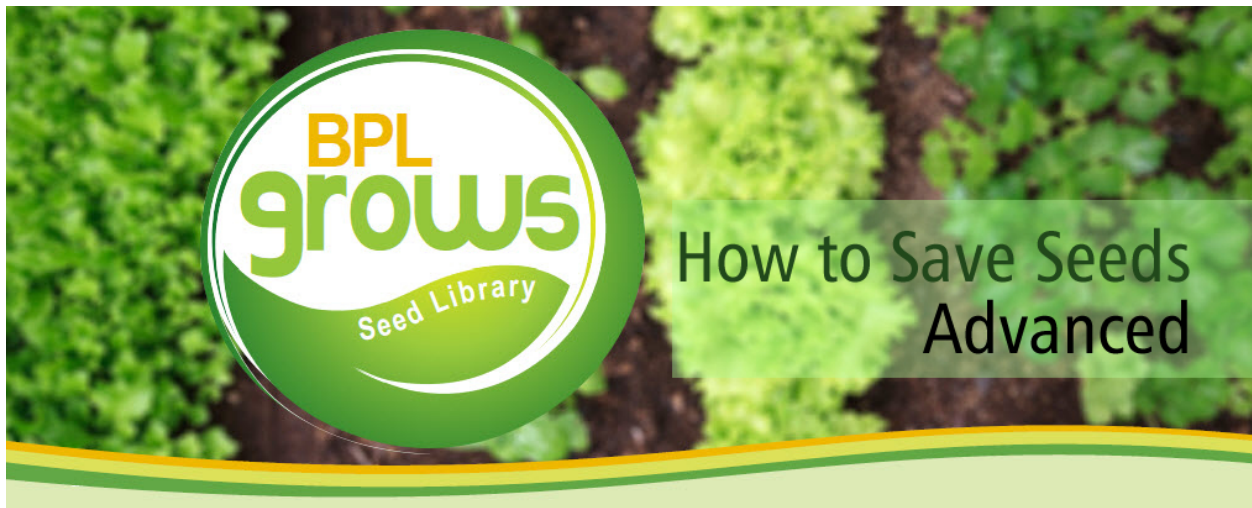
To prevent cross-pollination, separate varieties by distance (at least 0.8 km), caging with introduced pollinators or alternate day caging for small gardens.

Alternate day caging: plant two or three varieties and cover them with separate lightweight cages. Alternate cage removal days for each variety – do not remove cages from any two varieties on the same day and replace the removed cage in the evening. This technique allows each variety a chance to be pollinated by insects every two or three days. But it also allows for cross-pollination between yours and your neighbours’ plants.

Beets/Swiss Chard:

Grow seed for only one variety of beet or Swiss chard at any one time as they are from the same species and will cross-pollinate. Beets/swiss chard must be separated by wind-proof caging or bagging to ensure purity as their wind-blown pollen is exceedingly small and light.

- 1) Leave the base and center of the chard plants (you can still harvest leaves) and beet plants to over-winter, using deep straw mulch. Beet greens can still be harvested as long as the beet root is big enough to get through the winter and re-sprout.
- 2) Allow plants to fully mature, flower and become dry and brown.
- 3) Cut 4’ tall tops just above the root when majority flowering clusters have turned brown. Tops can be stored in cool, dry locations for 2-3 weeks to encourage further seed ripening.
- 4) Seeds can be easily rubbed off the stems/stalks. Large number of tops can be put into a cloth bag and stomped or pounded. Each ‘seed’ is botanically a berry, and contains several actual seeds (breaking them apart would damage many of the seeds). This is why chard and beets often come up several plants to a spot.
- 5) Put seeds into an envelope, then date and label it.



- 6) Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!

Broccoli/ Cauliflower/Cabbage (Brassica oleracea):

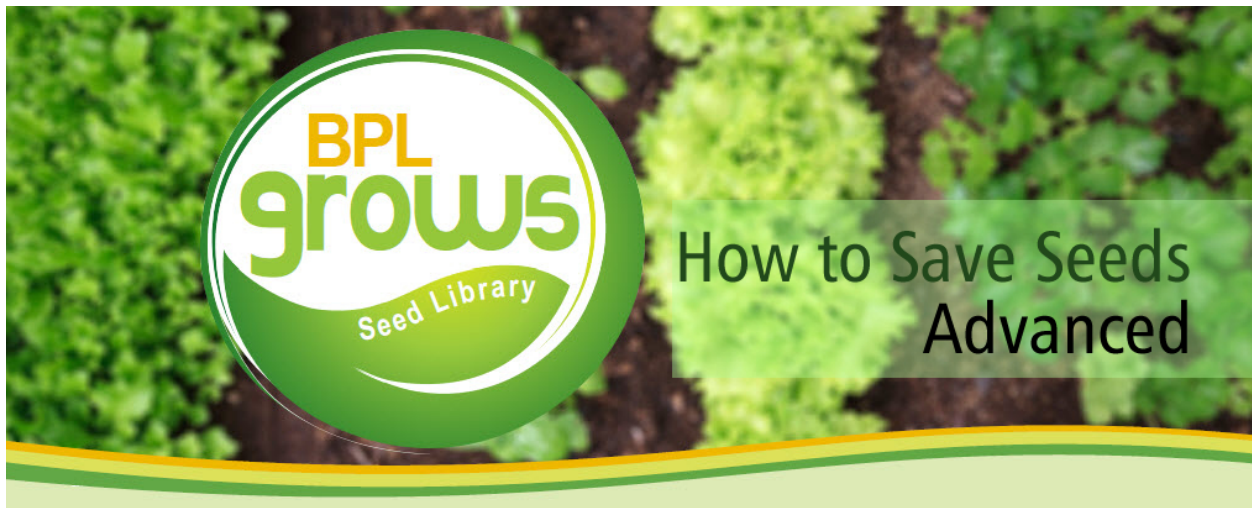
All vegetables and varieties in this species will cross-pollinate with each other. These plants must be separated by caging with introduced pollinators or alternate day caging for small gardens.

- 1) First year: harvest central heads and some secondary shoots for eating, then leave a healthy side shoot or two on each plant to over-winter and flower for seeds. Plants should be mulched in the Fall.
- 2) Second year: Heads grown for seed should not be trimmed for consumption.
- 3) Plants will flower and seed pods will mature and dry on stalks. Harvest when dry but before pods naturally split open. Seeds will not continue ripening after the plants or stems are cut.
- 4) You can pick and open individual pods once dried to a light brown color or pull the entire plant after a majority of pods have dried for more seeds.
- 5) Finish drying upside-down in paper bags and any seeds that haven't fallen out naturally can be removed by crumbling the pods.
- 6) Put seeds into an envelope, then date and label it.
- 7) Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!

Brussel Sprouts (Brassica oleracea):

Belongs to the same species as Broccoli/Cauliflower/Cabbage and will cross-pollinate with them. These plants must be separated by caging with introduced pollinators or alternate day caging for small gardens.

1. First year: The same plants can produce both sprouts for eating and seeds. Leave a few sprout heads on each plant to over-winter using mulch.
2. Second year: Let plants grow until seedpods reach maturity on the mother plant. Once pods are dry and brown, they can be harvested and broken open. Pods open readily once dried.



3. Put seeds into an envelope, then date and label it.
4. Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!

Carrots:

Separate different varieties at least 0.8 km to ensure purity. (Queen Anne's Lace or wild carrot will cross with garden carrot.) Alternate day caging or caging with introduced pollinators allows two or more varieties to be grown for seed in small gardens.

- 1) First year: Grow your carrots over the summer. Leave the largest, most healthy seeming carrots in the ground over winter. Mulch in late-fall to ensure winter survival.
- 2) Second Year: Prune the tops of the carrots (the green plants) of dead leaves and flowers in the spring.
- 3) Let the carrot plants grow their flowers throughout the summer until the seeds begin to mature.
- 4) You will know when the seeds are mature when they turn brown and detach from the flowers.
- 5) They will fall but most will adhere to the green part of the plant.
- 6) Cut the stalks when about 80% of the seeds are mature, and place upside in paper bags to dry out completely. (Takes one or two days).
- 7) Shake the seeds off the stalks into the bag.
- 8) Put seeds into an envelope, then date and label it.
- 9) Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!

Kale (*Brassica oleracea*):

Most kales are *Brassica oleracea*, and will cross with other members of this species such as cabbage, collards, broccoli and cauliflower. Siberian Kale, however, is *Brassica napus* and will cross with rutabagas and rape, but will not cross with the members of *B. oleracea*.

- 1) First year: Mulch and overwinter your kale plant.



How to Save Seeds Advanced

- 2) Second year: Let your kale plant flower (bolt) and let seed pods mature and dry on the plants.
- 3) As pods begin to dry, cut stalks and allow them to fully dry hung upside down in a paper bag to catch seeds.
- 4) Put seeds into an envelope, then date and label it.
- 5) Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!

Onion:

Varieties within each onion species will cross with each other. Closely planted groups of plants can be caged or bagged and then hand-pollinated.

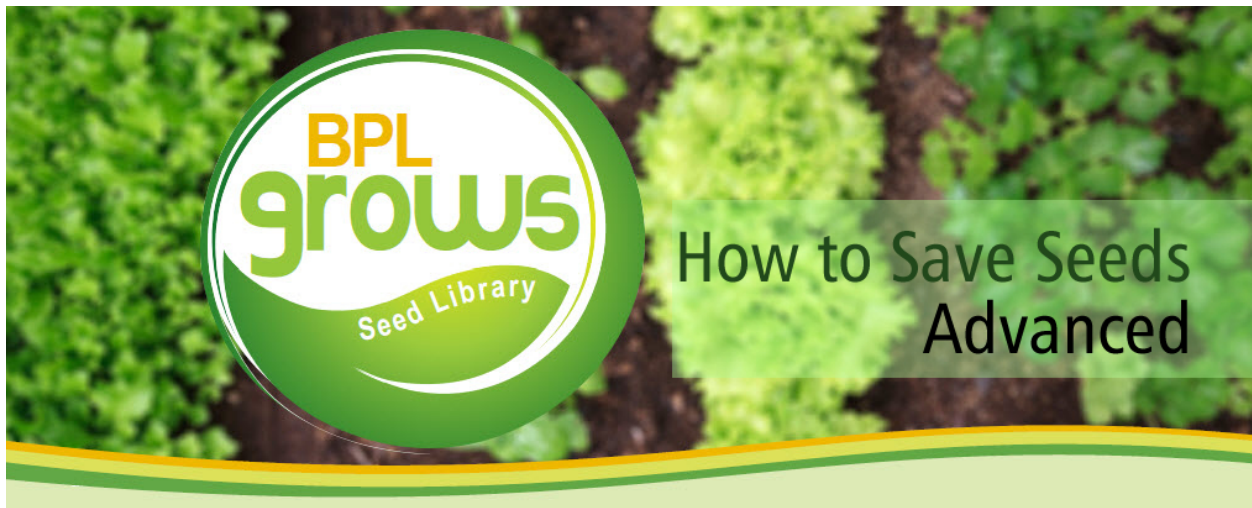
*** To hand-pollinate, remove cage/bag and use a fine, light paintbrush to mimic the action of visiting insects, thoroughly mixing pollen between several flowers. Make sure to hand-pollinate the flowers during a time (such as early morning or late evening) when insects are not present, and replace covers quickly and securely.

- 1) First year: Mulch in late-fall to ensure winter survival.
- 2) Second year: Allow plants to mature forming flowers and seed heads.
- 3) Wait for the seed heads to dry. Most of the flowers will be dry, and the seeds will begin to fall out on their own.
- 4) Cut the seed heads, from the plants and allow them to dry completely.
- 5) Separate the seeds from the stems and other matter.
- 6) Put seeds into an envelope, then date and label it.
- 7) Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!

Radicchio:

Isolate different varieties by 0.8 km to ensure purity. Wild chicory will also cross pollinate with radicchio.

- 1) First year: Outside leaves can be harvested for eating without harming seed production. Mulch in late-fall to ensure winter survival.
- 2) Second year: Plants will bolt, flower and set seed over several weeks. Watch for other relatives flowering at the same time to avoid cross pollination.



- 3) Allow plants to dry completely after most of the flowers have set pods.
- 4) Pry open pods to release dry, hard seeds.
- 5) Radicchio seed is difficult to remove from the pods. Entire pod can be planted but seedlings will need to be thinned
- 6) Crush large amounts of pods in cloth bag with wooden mallet. Separate from debris.
- 7) Put seeds into an envelope, then date and label it.
- 8) Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!

Swiss Chard – See “Beets”

Turnip:

Turnips are in the same species and will cross with—and must be isolated from—Chinese Mustards and Chinese Cabbages by 0.8 km of separation or by alternate day caging.

- 1) First year: Dig turnip roots in the fall and store them in a root cellar, fridge or cold room.
- 2) Second year: Select nicest roots to re-plant – ensure growing point on top is intact. Roots may already be growing leaves before being planted. Plant 12” apart leaving the tops above ground.
- 3) Allow plants to mature to flower (can grow up to 3’ tall) and seed pods to dry to a light brown colour before picking and opening by hand. Lower pods dry first.
- 4) Smash unopened pods in a cloth bag with a mallet or by walking on them. Separate seed from debris.
- 5) Put seeds into an envelope, then date and label it.
- 6) Drop the seeds off at the 2nd Floor Information Desk at Burlington Public Library, Central Branch to share with your community next year!