

## LTPL Seed Sharing Library

### Seed Saving Techniques

The following techniques can be used when dealing with plants that cross-pollinate by insects or wind. Since many seeds last for two or more years, you don't have to save seeds from every plant every year. You only have to employ these methods on those plants from which you need to save seed. For more detailed instructions, please consult our website for links to online sources or check out one of our many books on the subject of saving seeds.

**Bagging:** Covering a blossom or seed-head to prevent cross-pollination from the outside. The bag may be made of fine netting or paper. Covered flowers still need pollination, either by hand or by introduced pollinators. This is the technique used for corn and other grains that form large seed heads.

**Blossom taping or tying:** This technique is used for squash, pumpkins, cucumbers, gourds, melons, and involves closing a blossom with tape or tying it shut with cord, paper clips, rubber bands or twist-ties after hand pollination to prevent further pollen from landing on the flower. For best insurance against rogue pollination the female flower should be tied the night before, then the blossom can be opened, hand pollinated, then closed again.

**Caging:** Preventing pollinators (insects & birds) from reaching flowers by use of a simple structure covered with fine netting or row cover. Single plants may be caged or whole sections of garden may be covered. One of the methods of hand pollination will have to be employed to replace the actions of pollinators. Pollinators can also be introduced into the cage. Cages only have to remain over the plant until pollination is finished and they can be removed once the fruit begins to grow. This technique is used on cole crops like broccoli and kale and on root crops and greens.

**Timing:** Making sure you plant cultivars that bloom at different times so they don't cross-pollinate. Close attention has to be paid to the variety descriptions. Also watch for bloom-time of biennials in the same family. For example, kale (biennial) and broccoli (annual) might bloom at the same time and cross. You can also just plant one variety of some plants, like spinach, so there won't be any other varieties with which to cross.

**Distance:** Growing crops far enough apart so that cross-pollination is unlikely. This method can be difficult for the home gardener because the distance required will be a minimum of 25 feet and as much as 5 miles, depending on the crop. Neighboring gardeners and farmer's crops have to be considered as well as what you grow in your own garden.

**Hand Pollination:** Pollinating flowers by hand to control parentage. This can be accomplished several ways, and should always be done early in the day and no later than 10 am. You can remove the stamen from one flower and place it directly on the stigma to transfer pollen. You can also remove pollen from the stamen of one flower with a brush or swab and transfer it to the stigma of another. Self-pollinating plants can be shaken or to assure the pollen falls on the stigma. Be sure to label your crosses below the flower so you know which fruits to save for seeds after the blossom falls off.

**Heat-treating seeds** – Avoid saving seeds from plants afflicted with blight, rot, or other fungal diseases as these diseases can carry over from year to year on the seed, even if you rotate crops. If you suspect that your seeds come from plants that might have been afflicted with some sort of disease and you still want to save them you might want to give them a hot water treatment. Warm a pot of water to 122 degrees (celery, celeriac, and lettuce need 118 degrees) and have ready. Put the seed in a net bag and pre-warm them in water of about 110 degrees. Move to the hot water using a colander or strainer to keep them from touching the bottom of the pan. Maintain the heat for about 20 minutes, being very careful the heat doesn't rise even a few degrees as this could kill the seeds. After the time is up, move them to a bowl of lukewarm water and then to a bowl of cool water. Dry thoroughly and package for storage. This treatment is good for most seeds, but some seeds require high or lower heat or less or more time in the hot water.