

Grow More Vegetables with Better Pollination by Vera Strader

Whether you grow a lone tomato plant or an extensive garden in back, most vegetables and fruit require pollination to produce food for the dinner table. Flowering plants accomplish this in one of three ways.

Flowering Crops Are Usually Insect-Pollinated. With these plants, pollen must get from the male anther on one flower to the female stigma on another flower. This is true of melons, squash, cucumbers, pumpkins and orchard fruits including apples, apricots, and pears. Bees literally carry the big load while assorted flies, some beetles and hummingbirds pitch in.

Lacking insect pollinators, *you* can become the pollinator for squashes and pumpkins. Using a soft brush, Q-tip or a feather, gently brush the yellow pollen from freshly opened male flowers (the ones with the long stem) on to the female flowers (with a short stem and miniature fruit at the base of flower).

Tomatoes, Peppers, And Eggplants Are (Mostly) Self-Pollinated. With these plants, pollen must move from the male to female parts of the same flower or to another flower on the same plant. Tomatoes, peppers, and eggplants are our most common self-pollinated garden plants.

However, the male part of the flowers, the anther, is fussy about releasing its precious pollen. Tomato pollination is said to be more likely on sunny days with a gentle wind. Blossoms may drop with night temperatures below 55 degrees or high daytime temperatures. To encourage pollen release, try gently shaking your tomato and other self-pollinated plants (when they're blooming of course).

Even self-pollinated fruit and veggies benefit from insect pollinators. Some bumblebees "buzz pollinate" by curling around the blossom and vibrating, becoming "living tuning forks" while buzzing the pollen free from flowers' anthers. Bumblebees shine at pollinating kiwi and blueberries and help pollinate tomatoes, eggplants, and peppers.

A hormone spray called "Blossom Set" is marketed to encourage tomato pollination and subsequent "blossom set." These sprays reportedly may help during times of low temperatures but are useless to prevent blossom drop during high temperatures. Misshapen fruit may also result.

Corn and Other Grains Are Wind-Pollinated. Relying on air currents, the pollen is carried from flowering parts on the silks of one plant to that of another. For a good crop, plant corn in blocks rather than a few skinny rows. This principle is true of other grains as well.



Two Honeybees on a Flower



Boost Your Garden's Total Production by inviting more bees. In addition to the imperiled European honeybee, we are blessed with innumerable native bees including 26 species of California bumblebees. Many natives, such as the squash bee, specialize in pollinating certain kinds of plants.

Both native and honeybees are declining, but we can help all bees prosper. Welcome them with limited use of pesticides in and near your garden, especially when

trees and plants are blooming. Better yet, skip pesticides altogether and in time your garden will enjoy a balance between insects and other critters. Leave some unmulched, untilled open ground since native bees often live in burrows.

Plant flowers that nourish bees throughout the year. Early flowers help build bee populations to help pollinate your garden later in the year. Pollinators need old-fashioned, simple flowers so they can reach the pollen and nectar in the blossom's center. California native plants have been shown to be especially helpful.

Grow flowering annuals among your veggies. Favorites are zinnias, sweet alyssum and borage—all of which may reseed, eliminating the need to replant each year. These blossoms attract numerous beneficial insects.

Learn more about helping pollinators at <http://nature.berkeley.edu/urbanbeegardens/> and www.xerces.org. Call the Xerces Society toll-free, (855) 232-6639, to order their book, "Attracting Native Pollinators."



Vera Strader grows extra vegetables to share with neighbors and food banks.