

## FLOWER POLLINATION AND FRUIT DEVELOPMENT

Flower pollination is a necessary part of the development of most fruits and vegetables. There are many factors that affect successful pollination and fertilization. Most fruit crops and many vegetables are pollinated by insects, particularly bees. Avoid spraying insecticides, especially Sevin, during the flowering period because that will kill the bees along with the pest insects.

Pollination is a crucial part of growing quality apples, sweet cherries, pears, and plums. These crops require cross-pollination by another variety of the same species to set fruit. This requires bees moving pollen from a pollen-donating tree to the receiving tree. require pollination. Unless there are other varieties of these fruit trees nearby, you should plant some of your own to ensure a crop at harvest time.

Most fruiting vegetables require successful pollination for fruit development. Some are self-pollinated while others are aided by wind or insects. Self-pollinated crops are those where flowers are designed so that the pollen pollinates the flower that produced it. Some legume crops have this system and in some cases pollination occurs before the flowers even open. Other pollination systems are more open (cross or open-pollinated) and even though pollen from the same flower can successfully pollinate the flower, pollen from other flowers on the same plant, or plants of the same species, can be carried between flowers by wind or insects.

Certain vegetables, such as tomatoes, peppers, eggplants, melons, and squashes, will not set fruit unless night temperatures are between 60 and 70 degrees. The large showy flowers on cucumbers, squash and melons are actually the male flowers and won't set fruit. Look for fruit to develop on the smaller female flowers of these vegetables.

Late frosts prior to bloom may kill the reproductive parts of the flower. If the flower is black inside following a cold snap, it is not viable. Temperatures below 65 degrees and winds over 10 mph may also decrease pollination by slowing bee activity. In addition, cool temperatures can inhibit the pollen's ability to fertilize the stigma. Poorly fertilized fruit are likely to drop from the tree or plant. Apples that are partially fertilized develop fruit only on the side that contains fertile seeds, giving it a lopsided

appearance.

Ref: MSU Extension Website, When Will My Vegetables Be Ready To Harvest?, and Pollination

The **Master Gardener Hotline** is open from April to October, Monday through Friday. Lines are available 9:00 am to noon and 1:00 pm to 4:00 pm at 888-678-3464

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