

Friday's Feature

By

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May 31, 2009

“Bee” aware of pollination in the vegetable garden

When growing squash, vigorously growing plants and lots of pretty, yellow flowers are good signs but certainly not a guarantee that you will have a bountiful harvest. Actually, those healthy-looking plants and showy flowers may be signaling a time for you to literally get “as busy as a bee.”

Squash, like all members of the cucurbit family, have separate male and female flowers on the same plant. For fruit set to occur, pollen must be transferred from the male to the female flower. This process (pollination) is a function normally carried out by insects, most often honeybees.

The primary reason the numerous yellow flowers may yield little, if any, squash is an absence of honeybees and the resulting lack of pollination. This is especially true in urban/suburban areas where honeybees seldom choose to build their hives.

An absence of honeybees is a real problem, but one that can easily be overcome if you are willing to take their place. You can play “bee” by hand transferring the pollen from the male to the female flowers. It's simple, easy and almost always guaranteed to result in plenty of garden-fresh squash for your dinner table.

Before we get into the art of “playing bee,” you obviously need to be able to tell the difference between the male and female flowers. The female squash flowers are those that have a very distinct swelling or enlargement directly behind the petals which is actually the small, immature squash fruit. The male flowers lack the immature fruit and are simply attached to the plant by a long, slender stem. Both male and female squash flowers are open only for a single day. They open during early morning and generally close by mid afternoon. Pollination is best done in the morning, when high humidity helps to activate the pollen.

Playing bee can be accomplished in several different ways.

You can use a cotton swab or a small paint brush to transfer the pollen from the male to the female flower. Simply dab either the swab or brush into the center of a fully open male flower, making sure some of the



yellow pollen grains adhere to the cotton or bristles. Then, transfer the pollen by dabbing the swab or brush into the center of an open female flower. In most cases there is enough pollen in one male flower to pollinate three to five female flowers.

A less sophisticated, but just as effective, method when playing “bee” is to simply pull off an open male flower, remove or peel back the flower petals and then dab its pollen-laden center into the center of an open female flower. Make sure the center of the male flower (anther) makes good contact with the center (stigma) of the female flower. Since this is a much less pollen-efficient technique, use one male flower to pollinate no more than three female flowers.

If you find reason to treat your squash with pesticides to control diseases or insects, do so during late afternoon. Spraying or dusting at this time will greatly reduce the chance of harming pollinating honey bees.

So don't let an absence of honeybees keep you from enjoying the great taste of home-grown squash. Arm yourself with a cotton swab, small brush or a male flower and pollinate away!

For more information visit the University of Florida IFAS publication “Hand Pollination” at <http://edis.ifas.ufl.edu/HS398>.

Theresa Friday is the Environmental Horticulture Extension Agent for Santa Rosa County. The use of trade names, if used in this article, is solely for the purpose of providing specific information. It is not a guarantee, warranty, or endorsement of the product name(s) and does not signify that they are approved to the exclusion of others.

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