NEWSPAPER ARTICLES

Bees in the Garden (July 22, 2023)

By Anne Skinner, Tulare-Kings Counties Master Gardener

Bees are among the hardest-working animals on the planet. Their most important activity is pollination. While many of us only recognize them only by their ability to sting and want to run in fear when a bee is near, we should be aware of how important bees are to our world and the food we eat.

Types of bees

Honeybees are not native to the United States but were brought here from Europe by early colonists. Honeybees are social insects and live in a hive with a structured society and specific roles. The bees we see most often are the workers, who collect nectar and pollen from flowers to take back to the hive.

Squash Bee

Less well-known are native bees, of which there are over 1000 species in California. These include sweat bees, squash bees, mason bees, mining bees, carpenter bees, leafcutter bees, digger bees, bumblebees, and cuckoo bees, among others. Native bees are solitary; thus, they do not have a hive to protect and are rarely aggressive toward humans. They also are active pollinators who are less susceptible to disease than honeybees. Native bees are adapted to local climate, soils, and plants, and most do not resemble honey bees in size or coloration. UC Berkeley has an urban bee lab online with detailed information on bees: *http://www.helpabee.org/*.

What do bees provide?

About one-third of our agricultural crops require pollination to develop into the food we eat. Pollination is necessary for them to set seeds and fruit. Some crops, such as apples, peaches, plums, almonds, blueberries, watermelon, cantaloupe, and squash, are directly dependent on insect pollination. Indirectly dependent crops are grown from seeds resulting from insect pollination. Examples are carrots, onions, and alfalfa for dairy cows. Crop yields and quality will be improved with the assistance of bees in strawberries, peppers, eggplant, and grapes. Tomatoes don't require pollinators, but the fruit size will be much larger with the assistance of bumblebees.

Honey, which is a very beneficial (and tasty!) food for us, is made by honeybees and collected and processed by beekeepers. The honey takes on the flavor of the flowers the bees visited-- orange blossom, clover, wildflowers, alfalfa, or herbs.

Why do bees have a stinger?

Bees are hard workers. The nectar and pollen they collect are stored in the hive as a food supply for developing young bees. They are very protective, and if they feel they or their hive are threatened, they will attempt to drive off the intruder by stinging. Bees rarely will sting when they are far away from their hive--unless they feel threatened.

How can you avoid this unpleasant contact?

When working in the garden, avoid wearing flowery perfumes or scented products. Also, avoid plants in heavy bloom where many bees are present. Bees are choosy about their work conditions and avoid cooler temperatures, so working in the garden early in the morning or early evening reduces contact. Insect repellant is also a means of keeping bees at a distance.

If you do see an active hive, avoid the area and seek the services of a beekeeper to come remove the hive for you. A Tulare County bee swarm removal call list, can be found online at the Tulare County Agricultural Commissioner website: *agcomm.co.tulare.ca.us/ag* -- or by calling the main office at 559-713-3768.

People with a severe bee sting allergy certainly need to take extra precautions to avoid bee stings and seek immediate attention if stung. In the majority of people, a bee sting is uncomfortable and painful but resolves in a few days. Remove the stinger as soon as possible and apply a cool compress to the area.

Mistaken identity- Is it a yellow jacket?

Yellow jackets are a species of wasp. They are attracted to nectar, fruit, tree sap, meat, insects, and caterpillars. These are the troublemakers who invade your picnic and climb on soda cans. They are not pollinators, but predators of many garden pests, such as flies, caterpillars, and spiders, to feed their larvae.

They can be distinguished from bees by distinct yellow and black markings and a lack of hair on their bodies and hind legs. Their nests, which look like paper, are constructed of chewed wood fibers and are found in trees, shrubs, inside walls, and soil cavities.

Yellow jackets defend their nest aggressively and will sting multiple times. The nest is best removed by an exterminator if it is near a house, where children play, or where outdoor activities occur.

Bees on the hummingbird feeder
Bees are also attracted to the sweet liquid in hummingbird feeders, especially if they are hanging in a sunny spot and adorned with yellow flowers**.** If the bees become too numerous, they can impede the hummingbirds' ability to feed. Try moving the feeders to another area of the garden where the birds will still find them even if the feeder is placed in the shade. Sometimes letting the feeder go dry for a couple of days causes the bees to lose interest.

Hazards to Bees
While systemic insecticides may keep pests from eating your favorite plants, the chemicals can be toxic to pollinators and beneficial insects. Insecticides containing neonicotinoids are taken up by the plant roots and into the pollen and nectar the plant produces. When bees feed on pollen, these insecticides will kill or weaken them. Only use insecticides when absolutely necessary in order to protect our bees.

Gardening to help bees earn their living
Group plants with easy access to pollen, such as daisy-shaped flowers, especially in the colors of yellow, white, purple, or blue. For a continuous food source, plant a variety of pollen-producing plants in the garden, with two or three plants each blooming in the early, mid, and late growing season. Avoid weedy borders, which harbor plant pests and diseases. Before planting native plants, remove invasive, noxious, and non-native plants to reduce competition for space and water.

The Xerces Society at: *www.xerces.org* has lists of recommended native flowers for pollinators and beneficial insects by region. They also list native seed vendors and native plant nurseries. UC Davis has a Bee Haven Garden. A list of the drought-tolerant plants used there can be found at: *https://beegarden.ucdavis.edu/.*

A shallow saucer-shaped dish of fresh water with stones for landing is essential for the bees' health in the heat of summer. Many native bees live in ground nests, so leaving some bare, untilled soil in the garden is important to make them feel welcome.

If you are having a problem with plant pests, Integrated Pest Management (IPM) from UC Davis can be accessed on the Master Gardener website: *http://ucanr.edu/sites/UC_Master_Gardeners/UC_Gardening_and_Pest_Info/*. The information there will help to correctly identify the plant pest and includes management of the pest, starting with the least toxic methods. Another valuable site lists bee precaution pesticide ratings- *www2.ipm.ucanr.edu/beeprecaution/.*

Bees are an essential part of the garden and the agriculture that produces much of our food. We need to appreciate and support their efforts by planning and maintaining our gardens with bees in mind.

The Tulare-Kings Counties Master Gardeners will answer your questions in person:
Visalia Farmer's Market- 1st & 3rd Saturdays, 8-11 am, 2100 W. Caldwell Ave (behind Sears)
Hanford Farmer's Market – 4th Thursday, May – Sept, 5:30 – 9:00 pm, 219 W. Lacey, Hanford
Questions? Call the Master Gardeners:
Tulare County: (559) 684-3325, Tues & Thurs, 9:30-11:30;
Kings County: (559) 852-2736, Thursday Only, 9:30-11:30 a.m
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