

ATTRACTING POLLINATORS

June 22-28, 2020 has been designated National Pollinator Week by the U.S. Department of Agriculture and the U.S. Department of the Interior. Farmers and gardeners alike have seen a decline of many of our pollinating friends. We think of pollinators many times as just managed honey bees but actually there are 4,000 species of wild native bees in the US that provide pollination. Native bees can be divided into three broad categories: solitary ground-nesting (mining bee), solitary wood or tunnel-nesting (leaf cutting bees), and our one group of native cavity social bees, the bumble bee.

Native bees alone contribute \$3 billion dollars a year to the national economy through pollinating such crops as strawberries, cantaloupe, blackberries, blueberries, and sunflowers.

We must also include the other beneficial pollinators. These would include birds such as the ruby throated hummingbird, bats such as the lesser long-nosed bat, beetles such as the soldier beetle, flies such as the hover/flower fly and of course don't forget all our moths and butterflies.

The annual value of insect pollinated crops according to a Cornell study is \$29 billion per year to US farm income. This would include such crops as apples at over \$1.5 billion, Alfalfa over \$7 billion and canola, soybean and cotton would equal another \$12 billion.

It is important to know the habitat on your farm. Native bees and other pollinators need both food and shelter-they eat only pollen and nectar and they nest in tunnels or in the ground. In the process of gathering pollen and nectar resources, pollinators move pollen from one flower to another, and thus pollinate your crops. Pollinators rely upon an abundance and variety of flowers, and need blooming plants throughout the growing season. Such pollinators as native bees don't build the wax or paper structures we associate with honey bees or wasps, but they do need places to nest, which vary depending on the species. Wood-nesting bees are solitary, often making individual nests in beetle tunnels in standing dead trees. Ground-nesting bees include solitary species that construct nest tunnels under the ground. Cavity-nesting [social](#) species make use of small spaces, such as abandoned rodent burrows, wherever they can find them.

What is in Your Farm and Home Habitat?

Hedgerows or Windbreaks can be developed with a variety of plants that benefit pollinators and have overlapping flowering periods. This will provide food and nesting resources for throughout the growing season.

Habitat along streams should contain a diversity of plants. Willows, in particular, will nourish bumble bee queens in the spring so that large numbers of workers are available when crops begin to bloom.

Nearby natural areas may harbor all the native bees needed to pollinate your farm's crops. Consider inviting your neighbors to help with safeguarding these habitats.

Keeping dead trees [standing](#) provides shelter for native bees. Some solitary bees build nests in abandoned beetle tunnels in snags.

Leave areas next to fields untilled and unsprayed to support flowering plants and provide nest sites for ground-nesting bees.

Cover Crops are great sources of flowering plants that can supply an abundance of pollen and nectar.

So what can you do to attract and provide more habitats for our important pollinators?

The obvious for all of us is to grow more flowers but what does that really mean? Basically Trees, shrubs and herbaceous plants can provide food and nesting habitat for pollinators. An abundance of different flower shapes, sizes, and colors will appeal to a variety of pollinators.

Keep in mind that not all flowers are created equal. Some cultivars and hybrids don't offer the pollen and nectar rewards that so-called "straight species" do, since the quality and quantity of nectar and pollen are sometimes lost during breeding

You want plants to flower at different times of the year since different species of bees, butterflies and other pollinators are active at different times of the year.

We also need specific host plants for the caterpillar of certain species of butterflies. Monarch will drink nectar from many flowers but need the milkweed to lay eggs on and the caterpillar to feed. The loss of many milkweeds in the landscape is one reason for the decline of the monarch.

Find out what native native plants attract native pollinators in your area. Native plants offer nectar, pollen and other nutrients in quantities that native pollinators need.

Providing nesting sites such as brush piles, dead standing trees and clumping grasses all provide important nesting and overwintering habitat for bees and butterflies.

Artificial nesting sites can be made or purchased. These structures require routine maintenance, and even periodic replacement, to prevent the buildup of bee pathogens and parasites.

A source of water is beneficial for thirsty pollinators, especially in the heat of summer. A simple shallow bowl or birdbath can provide sufficient water. A few sticks placed in the bowl will provide a place for bees and other insects to land and perch, thus preventing insect drowning.

Although not generally wanted, weeds too provide food for pollinators, including dandelions, milkweed, goldenrod and clover. Consider tolerating weeds with benefits to pollinators.

For more information check out these websites: Pollinator Partnership: pollinator.org and The Ohio State University Bee Lab: beelab.osu.edu.



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