

The Buzz about Bees (edition 3) - Pollination

In the February 1st edition of the Headlight Herald, Carla Albright had a Garden Matters column on planting for pollinators. I decided to continue that discussion but from the honey bees perspective. You probably know that about one third of the foods we eat require pollination but did you know that those pollinated fruits, vegetables and grains generate 90% of the nutrients we need? We would be in sad, unhealthy shape without pollinators.

There are over six hundred different kinds of bees just in Oregon! All but the honey bee are referred to as “solitary bees”. That’s because for those species only the queen lives through the winter. Those bees don’t need lots of pollen or honey. Mason bees are actually better pollinators than honey bees but they are around only from March until June and they don’t fly farther than about five hundred feet. So that leaves us with the hard-working honey bees.

Honey bees forage for pollen, nectar, water and propolis. We’ll just talk about pollen today. Pollen is the bee’s protein, amino acids, lipids, micronutrients, enzymes and on and on. (FYI: honey provides their carbs.) Remember that a colony is made up of one queen, 15% drones which are all males, and tens of thousands of workers, all female. From the age of six days to eleven days all worker bees become nurse bees. They are the only bees that need protein but they must have it in order to make royal or worker jelly which is the only thing very young larva can eat. No protein? No royal or worker jelly. No new honey bees. Colony dies.

Flowers attract bees by their color and pattern but more than that by their scent. Honey bees smell through their antennae and have a 50% stronger sense of smell than the average dog! Honey bees are “flower faithful”. Nature knows that to produce flower seeds the male pollen of a plant needs to be attached to the female stamens *of the same plant species*. So honey bees will only go to one plant species on a single trip. They may go to fifty or a hundred plants but they will all be bachelor buttons or wild roses or squash blossoms or apples or plums. The pollen collects on their body hairs and is brushed by the bees onto their hind legs into what are called pollen baskets. A bee can carry pollen up to 35% of its own bodyweight.

Spring pollens that honey bees love include pussy willows, alders, skunk cabbage, dandelions, mustard, fruit trees and maples to name a few. In the summer they have the berries and vegetables. But bees need pollen throughout the warm parts of the year. Sometimes especially after the spring flowering trees are done, beekeepers have to feed their honey bees “pollen patties” to ensure that the colony keeps growing.

It’s easy to imagine bees pollinating flowering trees and plants but it surprised me a little to realize that they pollinate carrots, broccoli, onions and all kinds of grains and root vegetables. We don’t ordinarily see the flowers of a carrot or onion plant but think about it. That package of vegetable seeds you buy in the store in the spring only happen because pollinators pollinated flowering carrots and onions, etc. somewhere, maybe in Madras or eastern Oregon.

The largest use of honey bees happens in California and it’s happening right now. Over a million (yes, a million!) hives are put on semi-trailers from all over the country and transported to California for three weeks to pollinate the almonds. No honey bees? No almonds.

Commercial beekeepers had to “wake up” their honey bees in December by feeding them pollen patties so the colony would grow bigger and bigger and be ready for the almonds in February. They didn’t exactly wake them up because bees don’t go to sleep or go dormant. But the queen doesn’t ordinarily lay eggs in winter. She waits for the pollen to come in which is what happens when the commercial beekeepers or anyone feeds a colony pollen.

So the next time you eat an apple or cherry or almond or carrot, thank a bee!

You will truly enjoy seeing the annuals, perennials, herbs, trees that honey bees love. Go to the website to the section called foraging and you will find pictures and growing instructions for honey bee favorites.

For interesting information about honey bees check out the Tillamook Beekeepers Association website: www.tillamookbeekeepers.org. Claire Moody is education director for the association and can be reached at clairemoody503@gmail.com.