Honeybees

By Chuck Howell
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One of the most fascinating animals in your garden

Yes, it's that time again! Fall and the onset of cooler weather is just around the corner. It's time to begin preparations for winter, and that includes kicking all boys out of the house—or, in this case, the house is a honeybee hive, and the boys are the male drones.

The yearly ritual of excluding the male bees (drone bees) from the hive ensures that there will be enough food for the girl bees (worker bees) and the queen during the winter months.

Drones are exiled from the hive at this time, because they do not add value to the bee colony in winter. They do not forage for nectar or pollen as do worker bees, meaning the drones bring no food into the hive. Rather, they consume valuable honey and winter stores brought in by the worker bees and don't do any work in the hive. This is why worker bees methodically remove the drones in the fall.

Not to worry though, in spring when the queen begins to lay eggs again, she will lay both drone and worker eggs.

A queen bee can live as long as five years but usually is highly productive laying eggs for only a couple of years. Many active beekeepers will place a new queen in a hive every year in order to keep the hive colony strong and productive in honey. They monitor the brood (eggs) frames and replace the queen when she cannot keep up with production demands. On the other hand, beekeepers could chose to let the worker bees replace the queen on their own. However, this process is slower and will decrease hive's productivity for up to six weeks while a new queen is reared and matures.

Contrasting with the long life of the queen, worker bees in the heat of summer usually live about six weeks. The first two weeks after emergence, young bees stay inside the hive, care for the queen and brood, and are the cleaners of the hive.

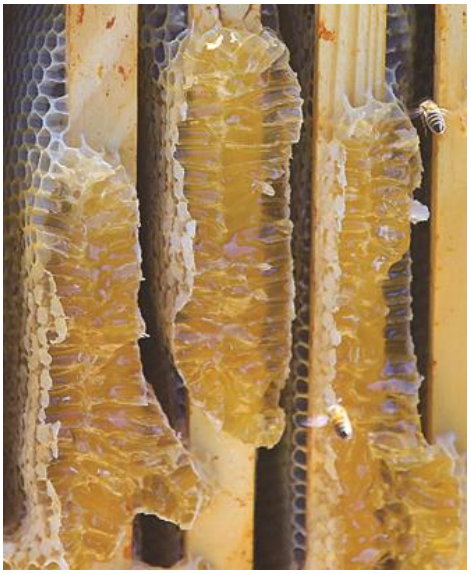
The second two weeks of life are an orientation to life outside the hive. The workers may also serve as "fanners" of the hive to keep it cool—you might see them sitting on the landing porch of the hive. During this time, they can also be seen flying outside the hive in a circular pattern, facing the hive and flying back and forth in front of the hive to orient themselves to the general hive surroundings.

They then begin foraging for nectar and pollen, and in their final weeks, act as guard bees. Workers may make thousands of flights during their lives and are active from sun up ‘til sundown. They literally work themselves to death.

The length of their lives also depends on weather and available food. As worker bees die off, new broods are raised as replacements. Worker bees live longer because of the cooler temperatures in autumn, and once the weather drops below about 50 degrees F their physiology changes, and they can often live through the winter. During this time, worker bees normally stay in the hive, maintaining warm hive temperatures and keeping the queen fed.

The drone’s main function is to fertilize a receptive queen. Queens mate in flight with 10 to 20 drones, which is a very random process. Drones are larger than worker bees and have no stinger. You can lightly touch the back of a drone and it will vibrate slightly; it feels sort of like a cat’s purr, only shorter in length. Do this only with the assistance of a beekeeper, so you don’t get stung,

The honeybee is one of the most fascinating creatures you will find in your garden. And it's certainly the most helpful as it is a main garden pollinator. Support honeybees and other pollinators in your garden by using no insecticides or only those with labels that state they are safe for pollinators. Enhance your honeybee activity by planting bee-friendly plants and flowers. Start a hive or two. Join a bee club.



Left: Once the queen is inside the hive, the rest of the honeybees rush in. **Right: Loaded honeycomb** in a hive set out near Clear Lake. *Photos by Scott Terrell / Skagit Valley Herald.*

Internationally renowned WSU scientist and bee breeder-geneticist, Sue Cobey, will be discussing beekeeping, queen bee rearing and her work to import honey bee germplasm to increase honeybee colonies fitness. Cobey developed the New World Carniolan (NWC), a line of honeybees adapted to a cold climate. They are distinguished by a darker body compared with the more golden-bodied Italian honeybee, a temperate climate bee. Since their development in the 1980s, the NWC has been selected for productivity and gentle temperament. They also do well in our Pacific Northwest climate. Her presentation will be on Tuesday, September 16, from 1:00 p.m.—2:30 p.m., in the Sakuma Auditorium at the WSU Mount Vernon Northwestern Washington Research and Extension Center, 16650 State Route 536 (Memorial Highway). Please join us.

The following websites offer ideas and information on how you can support a healthy honey bee environment:

- Skagit County: http://skagitvalleybeekeepers.org.
- Whatcom County: http://www.mtbakerbeekeepers.org
- Snohomish County: http://www.nwdba.org
- Whidbey Island Beekeepers Assn: http://wasba.org/organizer/whidbey-island-beekeepers-association/
- Washington State Beekeepers Assn: http://wasba.org