

## Backyard Briefs

*A weekly column*

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There are at least 45 different species of bumblebees in this country with a half dozen distinct types in any given area, but they all share a similar life cycle. In the last column we left the queen bee in her underground nesting chamber, as she settled in to brood her eggs, which she had laid on a nest of beebread (composed of honey and pollen).

Once the eggs hatch into larvae, they begin to feed on the stash of beebread their queen has provided for them. They continue to develop in the larva stage for several weeks. The queen is kept very busy gathering the necessary nectar and pollen to nourish them, while also beginning a second brood of eggs. All of the clutches of eggs hatched in spring and early summer will produce sterile female worker bees. Once the young larvae pupate into adults they will take over the duties of the colony. Behaving in a similar way to honeybees, they gather nectar and pollen, prepare wax pots, tend the larva and defend the colony so that the queen bee can concentrate all her time and effort on laying eggs.

By midsummer, bumblebee colonies are reaching their peak of production. Depending on the weather, species of bumblebee, and their success at finding food, bumblebee nests will house from 20 to 200 workers. As the summer ripens toward fall and blooms start to decline the colony changes as well. The queen begins to lay unfertilized eggs that will become drones (male bees) followed by eggs that produce young queens. Once these develop into adult bees the drones and young queens leave the colony. The old queen, founder of the entire colony, will be nearly bald, her energy and influence depleted.

The young queens are free to mate with any available bumblebee drones they chance to meet. Once the mating ritual is complete, the new queens move on to the business of feeding to gain as much weight as possible. They will need this fat store to make it through winter's hibernation. Finally, as the weather turns chill, each plump young queen will go in search of a suitable place to wait out the winter months in dormancy. The circle of the bumblebee's life will be complete; the young mated queens will once again lie in wait for spring, when they will emerge to provide the next generation.