

It was warm enough for me to open a hive a few weeks ago. I just peaked in and sure enough the queen had laid a full frame of eggs which were already at the “capped brood” stage. An egg looks like a tiny grain of rice standing up in the bottom of the cell. After three days the egg hatches into a larva for six days. Then the larva gets capped over, i.e., becomes “capped brood” and the metamorphosis happens. That takes twelve more days. It’s a total of 21 days for a worker bee to go from egg to live honey bee.

After birth it’s work, work, work! Female honey bees are called workers for a good reason. They really do all the work in the hive except for laying eggs. From birth to death, they progress through a series of jobs which keep the colony alive and on-going. Because of this, honey bees are called superorganisms. A single honey bee can’t live alone. In fact, a hundred honey bees couldn’t survive or even a thousand. It takes a colony of individual bees doing the job they were born to do at any given point in time – always for the good of the colony, never for themselves. We could learn some things from the honey bee, don’t you think?

For the first half of their about forty-day life they are called “house bees.” All their jobs are indoors.

Day 1 - 3: Their first job is to clean the cell they were born in to get it ready for the queen to lay another egg. Then they are busy polishing cells.

Day 4 - 6: It’s on to feeding pollen and honey to older larvae. The queen is laying 1500 eggs a day. There’s always a lot of feeding to be done. Studies showed each larva is fed about every 43 seconds, a total of over 10,000 feedings in its six days!

Day 6 -10: The worker becomes the super important job of “nurse bee”. Very young larva can’t eat pollen and honey. Only nurse bees have the ability to make royal or worker jelly. All larvae are fed royal jelly for their first three days which makes up a large part of those 10,000 feedings. A queen will only lay as many eggs as she has nurse bees to take care of them. When a colony dwindles in size it has little chance to survive unless we add young bees from another colony.

Day 11 – 15: Honey bees produce wax through slits in their abdomens. They and other bees chew on the wax to soften it and turn it into those perfect hexagons. Did you know that a hexagon is the perfect shape to hold the most nectar with the least amount of wax? Not only that, somehow the bees know how to put the right slant in the cell, so the nectar doesn’t just drip out when they put it in! Amazing!

Day 15 – 20: They have generalized jobs. Some are busy keeping the brood at 95 degrees no matter what the weather. Other bees are at the entrance ready to accept nectar from the foraging bees, passing it on to one another, then putting it in a cell. Some of the workers are flapping wings to get the water in the nectar to evaporate. Some are filling cracks with propolis, a tree resin. Others are acting as housekeepers and undertakers, removing debris and any bees that may happen to die inside the colony. Then there’s the guard bees. They are trying to keep robber bees and yellow jackets out. Work! Work! Work!

Day 20 to 40: The second half of their life is spent as “forager bees”. They leave the colony when temperatures are at least 50 and fly up to three miles to bring back nectar, pollen, water and propolis. When they find a great patch of flowers, they actually do a “waggle dance” inside the dark hive which tells other foragers exactly what direction and how far to fly to find it! Amazing! That’s only my second “amazing” for today but I could have used more, don’t you think? Bees make dozens of trips a day and fly until their wings wear out. Hopefully as you learn about honey bees you too will feel the awe! Until next time, eat honey!

For additional interesting information about honey bees check out the Tillamook Beekeepers Association website: www.tillamookbeekeepers.org. Prior articles can be found in the section

titled "About Bees". Claire Moody is education director for the association and can be reached at clairemoody503@gmail.com. Come see us at the Home and Garden Show!