The Buzz about Bees – The Nemesis

If you have been reading The Buzz at all, you know I find honey bees to be amazing. This article is, like Paul Harvey used to say, "the rest of the story".

Most people know that honey bee colonies are on the decline. Some people like to blame insecticides, herbicides and neonicotinoids (systemic insecticides). But the real nemesis to honey bees is the varroa mite. Prior to their introduction to the U.S. in the late 1980's beekeeping was easy. Older beekeepers talk fondly of "the good ole days". You didn't have to do anything. Just put out bees and harvest honey.

Varroa mites, however, spread quickly throughout the U.S. They are now found in virtually every colony in every country in the world.

Varroa breed in the capped cell with the honey bee pupa. A female mite jumps in the cell just before the larva is capped. It then produces one male and about seven or eight female mites which mate within that cell. Those mites suck out the immune system of the developing honey bee. When the honey bee emerges it cannot fight off the normal viruses present in the colony, viruses that, for a healthy bee, would not be a problem. It's sort of like the honey bee is born with AIDS.

Healthy honey bees live about six weeks in the summer. Bees that have had their immune system compromised live three weeks or less. They never get to the age of becoming a forager. The colony has less and less pollen and nectar coming in. The queen lays less as the number of nurse bees dwindle. The colony decreases to a few hundred bees. It's called colony collapse disorder (CCD).

Those seven or eight mites that jumped out of the cell when the bee was born walk around the colony sucking more nutrients from the fat cells of the bees. A few days later, each one jumps into a larva ready to be capped and the process starts all over. You can see how they multiply exponentially.

Colonies that are not treated do not survive. There was a fascinating example of that on Santa Cruz Island in California. Naturalists were trying to eliminate all non-native plants, animals, insects from the island. Honey bees are not native to North America. They were brought to Jamestown in 1622. Natives called them "white man's flies".

The honey bee was considered a pest on Santa Cruz. The conservatory brought in varroa mites as a "biological control" experiment. In 1993 one bee from each of 85 colonies on Santa Cruz had one single mite attached to it. The bees flew back to their colonies and within just two years

most of the honey bee colonies were gone. Within five years there were no more honey bees on Santa Cruz Island.

Most people give up beekeeping after about three years. They lose their bees the first winter and replace them the following spring. Then they lose them the next winter and replace them again. After losing them the third winter, they throw up their hands and say "Enough"! These people didn't treat for varroa mites.

To make it more challenging there is no one perfect treatment and even though most treatment options are "natural" there are restrictions on when they can be used. Just a few mites can infest a colony. One has to do regular mite testing and regular treating throughout the year.

Yes, it's a bit of a nuisance but then imagine how good it is to go into winter with four strong, healthy hives and come out in the spring with three or even four which you can divide and have colonies to sell! It's worth the effort. Plus, honey bees this year produced twice to three times as much honey as they have in past years. The spring rains made a huge difference in the amount of nectar present in plants. (Remember, you can find local raw honey sellers in the store on the Tillamook Beekeepers website.)

I had to find some way to end this article on a positive note because I'm teaching a free Intro to Honey Bees and Beekeeping class, Saturday, November 5th from 1 to 3:30. The class is fun and full of awesome information about honey bees. Don't let the thought of varroa mites keep you away. Register online on the website. It's a great time to start learning and you can come up with a great gift/wish list to give to family and friends for Christmas presents. Hope to see you there!

To read prior Buzz articles check out the Tillamook Beekeepers Association website: https://tillamookbeekeepers.org About Bees - Claire Moody is education director for the association and can be reached at clairemoody503@gmail.com.