

BACKYARD BEEKEEPERS AND AMERICAN FOULBROOD: A DEADLY COMBINATION?

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Healthy capped brood looks like this. The cappings look uniform and smooth (or slightly protruding). There are very few empty cells. If you see a frame with capped brood that is very patchy and has 25% or more of the cells not capped, take a closer look. (Photo credit - Randy Oliver)

In fall of 2017 I inspected a hive in my beginning apprenticeship yard in Berkeley, California, and the brood looked horrid. I'm not used to seeing unhealthy brood, as I keep my mite levels low, and my bee colonies large and healthy. I tested it for roping and sent in a sample which confirmed it was American foulbrood. I killed the hive, which was small, and the hive owner burned the equipment.

This hive was the biggest hive out of three hives in that backyard in the spring. I verified with the owner what I thought. We hadn't brought in any equipment into that yard. The AFB had not come from used equipment or comb. It likely had come from this thriving hive robbing out a weak AFB hive that spring. The AFB had built up in the comb by late summer in high enough levels to take out the once-thriving hive that fall.

Over the past five years, we have had quite a few cases of AFB in the San Francisco Bay Area. All of them were traced back to used frames/comb or cutouts. In the past two years, there have been multiple cases that did not come from used equipment. We suspect the source of the AFB to be a nearby hive, neglected and infected with AFB, similar to the experience I had in the Berkeley yard.

Last summer I moved to Minneapolis. I do personal hive consultations with backyard beekeepers and the very first one I did here I found AFB in the hives. In this case, the AFB came from used equipment from multiple sources. Since bringing it up with the local bee club, there have been two more cases reported. To my dismay, this is not only a Bay Area problem.

Beekeeping is trendy, and there are more and more people getting bees in the city. The popularity of the Flow Hive has expedited that. Bees in the city are a wonderful thing. There is an abundance of forage, the bees pollinate urban farms, and the hives teach people about bees/pollination.

Uneducated beekeepers are the bad part of the equation. I have dedicated eight years to teaching backyard beekeepers about bees. It still seemed that every week a person walked into my store in Berkeley who had a hive (perhaps for years) and didn't inspect and/or knew very little about bees and beekeeping. Often times the story is that the person's hive dies each fall/winter and a swarm moves in next spring. If the hive has AFB, it will not only pass it on to the swarm, but also to any surrounding colonies that later rob it out when it weakens from the disease.

People don't realize that beekeeping is a lifetime learning experience and can't be learned by watching a couple of YouTube videos. AFB has added a new sense of urgency to stepping up our game in reaching and teaching new beekeepers.

ALL NEW BEEKEEPERS NEED TO BE TAUGHT TO RECOGNIZE AFB

My beginning apprentices didn't notice how bad the brood looked until I pointed it out. Now, I carry photos of the AFB frames to show them. I also show them photos of parasitic mite syndrome, chalkbrood, and other diseases. The next time I run into AFB, I want to freeze a frame and take it out to show beekeepers so they can smell the stench of it. I can't forget that smell, especially when it's linked to killing a hive.

DON'T BUY USED EQUIPMENT

I personally don't get used equipment and rarely exchange frames with other beekeepers. It is tempting to save money if someone is giving away equipment for free or cheap. However, think about it. It's usually someone getting out of beekeeping because their hive died. If their hive died from AFB, the equipment is not good for you (you'll have to burn it) and certainly not good for any bees you put in it. If you are considering purchasing used equipment, carefully inspect any brood combs for AFB "scale," and take a very close look at the first generations of brood reared by the new colony in that equipment — being prepared to dispose of both should signs of AFB show up.

IF YOUR HIVE DIES, LOOK AT THE FRAMES

Figure out why your hive died and make sure it did not die from AFB. Double check with someone who has seen and smelled AFB. When you hear that a hive died, encourage the beekeeper to get the frames checked out for AFB. Inspect weakening hives carefully for signs of AFB — if present, euthanize and bag them before they get robbed out.

BE ON THE LOOKOUT FOR BEEKEEPERS IN YOUR NEIGHBORHOOD

Many of my bee apprentices reach out when they hear of someone with bees near them, because they know the health of their bees depends on the health of the hives surrounding them. One apprentice arranged to come over and help inspect the person's hive. The person lifted off the lid, looked at the bees, said they looked fine, and closed up the hive. No joke. That's what she considered an inspection.