



In Their Debt

by Jen Reeder

The Buzz Around Mack the Bee Dog

Yellow Lab inspects bee colonies for the Maryland Department of Agriculture



Cybil Preston and Mack.

As we all know, Labs are much better at eating food than helping to make it. But a yellow Lab named Mack is doing his part for the nation’s food production by keeping bee colonies disease-free as an apiary inspector – a.k.a. “bee dog” – for the Maryland Department of Agriculture.

Mack started with humble beginnings. When he was about a year old, his owners divorced, and he found himself living in a garage – and in dire need of a new home. Fortunately, fate intervened.

Cybil Preston had just become Chief Apiary Inspector for the Maryland Department of Agriculture. Though Labrador retrievers have worked as bee dogs for the agency since the 1980s, a black Lab named

Klinker and her handler were retiring as apiary inspectors.

Preston felt strongly that the program should continue and thought perhaps she should become a bee dog handler. So when she attended a party thrown by a local bee club and heard an announcement about Mack’s situation, she arranged to meet him (even though her husband’s first response was, “We already have three dogs!”). The deciding factor at the meeting would be how Mack responded to Murray, the 13-year-old black Lab who trains her family’s dogs on proper household behavior.

“They opened the garage and Mack came bolting out. He ran right over to Murray and dropped to the ground, like, ‘Play with me, please,’” she recalled. “As soon as I met him, I loved him. I knew I couldn’t leave

him there, putting him back in that garage. I just couldn't. I brought him home and the other dogs accepted him right away."

Mack was initially on the wild side, but after he was neutered and received specialized training, he was certified in October 2015 as an American foulbrood (AFB) detection dog. AFB is a bacterial disease that kills honeybee larvae, so bee colonies must be inspected before being transported to another state or sold. Preston said a single larva killed by AFB can contain 1 million spores, which then spread through the hive – into the wax and honey, which will tempt any other bees within about a mile radius.



Bee colonies.

"Honeybees by nature are robbers," she explained. "If they go into a beehive that died of American foulbrood and bring that honey back to feed to their larvae, there are spores in it and then the spores are fed to the larvae... that's how it continues. It is extremely contagious."

A single cell in a colony is smaller than the size of a thumbnail, so it can be challenging for humans to detect one infected with AFB. But since dogs have approximately 220 million scent receptors in their noses – compared to the five million humans have – Mack can inspect bee colonies much faster than humans. For instance, he inspected 292 colonies in a day, which would have taken a human several weeks.

"He's so much more efficient than humans," Preston said. "In a month's span he inspected over 1,600 bee colonies."

Using bee dogs like Mack is cost-effective for Maryland since apiary inspections are a free service for commercial beekeepers and hobbyists. But he can only work in the colder weather from November to March – when bees are dormant – to avoid being stung. The rest of the year, he's a pet and part of the

pack living with Preston and her husband, one reason why she thinks Labs make ideal bee dogs.

"They're great work dogs, but they're also great family dogs," she said.

Orie Hays is a commercial beekeeper whose grandfather taught him about bees. He's grown his Maryland-based business to approximately 3,000 colonies – each one home to up to 50,000 bees. His bees produce honey, and he also rents them out to commercial farmers to pollinate blueberry, strawberry, cucumber, watermelon, and cantaloupe crops on the Eastern Seaboard. "Without bees, you wouldn't have that fruit," he said. "You know, seven out of every ten bites of food that we eat, the honey bee's responsible, either directly or indirectly."

Each February, for over a decade, Hays has sent five tractor-trailer loads of honeybees to pollinate almonds in California. They need to be officially inspected and cleared of AFB before crossing state lines, and bee dogs have been key to that. One year, Mack's predecessor, Klinker, alerted on a single cell





Mack ready to work.

infected with AFB. “That dog knew it was there, but a person would just overlook that because it’s so minute,” he said. “That’s pretty remarkable in my estimation.”

Hays said he’s impressed with how well Preston and the new bee dog work together, and that Mack is just as focused, quick, and friendly as Klinker. “I think Labs are great dogs,” he said.

Kim Rice, who supervises the apiary department as program manager for Plant Protection and Weed Management at the Maryland Department of Agriculture, has

known several of the Labs who have worked as bee dogs and said they’ve all been valuable assets. “We’ve had a bee dog in this state for a really long time,” she said. “They all have had the same friendly attitude.”

Rice, who has a 14-year-old chocolate Lab named Raisin, said Preston and Mack work well as a team in the field and when giving educational presentations around the state.

“With Mack being the only dog that does this in the entire country, as far as we know, we like to use that to get the word out with our beekeepers,”

she said. “He’s always well-received. We all love Mack.”



Freelance journalist Jen Reeder is an award-winning member of the Dog Writers Association of America. She became a self-proclaimed “crazy dog lady” after she and

her husband adopted a loveable Lab mix named Rio. Please share tips for future columns about Labs and working dog organizations that help make our world a better place at: jen@jenreeder.com.



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