

NYS Beekeeper Tech Team

## Spring 2018 Honey Bee Health Report



### Methods

The NYS Beekeeper Tech Team sampled 314 colonies from 33 operations across northern, central, and western New York between June 1 and June 12, 2018, with the assistance of technicians from the Bee Informed Partnership. These samples came from 8 hobbyists managing less than 50 colonies, 12 sideliners managing 50 to 499 colonies, and 13 commercial beekeepers managing at least 500 colonies. Our team sampled one colony from each hobbyist, four colonies from each sideliner, and twenty colonies from each commercial beekeeper. We visually inspected colonies for queen status, population strength, and a variety of diseases. We collected and shipped a sample of bees from each colony to the University of Maryland Honey Bee Lab to quantify *Varroa destructor* and *Nosema* levels.

### Results

#### *Varroa*

Overall, mite levels were well managed in June. Colonies averaged 0.80 mites per 100 bees, and only thirty-eight colonies (12%) were above the treatment threshold of 2 mites per 100 bees. Just 5 colonies (1.6%) exhibited signs of parasitic mite syndrome, an advanced stage of combined *Varroa* infestation and viral infection. Commercial colonies had the highest average *Varroa* levels at 0.88 mites per 100 bees, and sideliners had the lowest average *Varroa* levels at 0.38 mites per 100 bees.

#### *Nosema*

We found *Nosema* spores in 88% of the colonies we sampled. While seventy-eight colonies (25%) contained more than 1 million spores per bee, the average *Nosema* count of colonies sampled was below this economic threshold, at 0.89 million spores per bee. Hobbyist colonies had the highest average *Nosema* levels at 1.88 million spores per bee, and commercial colonies had the lowest average *Nosema* levels at 0.83 million spores per bee.

#### *American and European Foulbrood*

Colony inspections identified American Foulbrood (AFB) in 1 colony (0.3%). The AFB infection was reported to the state apiculturist so that NYS apiary inspectors could be sent out to verify the presence of AFB, inspect additional colonies in infected yards, test for antibiotic resistance, and oversee the destruction of infected colonies. European Foulbrood (EFB) was identified in 14 colonies (4.5%) across 7 operations.

#### *Other Pests & Diseases*

Symptoms of sacbrood virus were observed in 18% of colonies, followed by chalkbrood in 12% of colonies, idiopathic brood disease syndrome in 4% of colonies, and deformed wing virus in 5 colonies (2%). Chewed down brood was observed in 14% of colonies, entombed pollen in 6% of colonies, and an adult wax moth in one colony. There was a single instance of an acute pesticide poisoning event.

