DEPARTMENT OF AGRICULTURE

Apiary Report

Plant Protection Division
Prepared January 2020

Apiary Inspection

The Apiary Inspection Program is available to beekeepers shipping bees or used bee equipment for the first time to some states. Two beekeepers requested inspection and certification for interstate shipment of honey bee colonies and equipment in 2019. This fee-supported inspection service will continue to be offered in 2020.

National Honey Bee Health Survey

For the 2019 National Honey Bee Health Survey, the longitudinal sampling of five apiaries continued along with summer July and August sampling. A total of 24 samples were still collected per state. Wax samples from broodnest combs were collected from the longitudinal apiaries in both spring and fall sampling. Some of the same beekeeping outfits were sampled longitudinally a second season in 2019. This gave data over two beekeeping seasons.

Although the three target organisms of the National Honey Bee Health Survey are not known to occur in the United States, they could become serious pests if they arrive in the country.

- *Tropilaelaps* spp. – A honey bee brood parasitic mite native to Asia.
- *Apis cerana* – An Asian honey bee that is a host for several Asian honey bee parasitic mites.
- Slow Bee Paralysis Virus (SBPV) – A virus capable of killing entire honey bee colonies.

Figure 1. An MDA inspector surveying a bee comb for the National Honey Bee Health Survey.

Figure 2. An MDA inspector sampling a comb.

Due to the cold, wet weather in May, sampling didn't begin until June 2019 when a total of 10 apiaries were sampled. Five apiaries were sampled during July and August and the last nine were sampled in September and October. The main challenge in 2019 was scheduling apiary sampling around the very wet weather.

Survey results have been received from 12 of the 2019 samples. American Foulbrood was found in one sampled apiary in the fall sampling period. This serious bacterial disease requires aggressive management by the beekeeper to mitigate since it is very easily spread by common beekeeping practices and often kills colonies. Varroa mite levels in the apiaries are always higher in late summer and fall sampling, and much varroa damage was seen in a number of the later sampled apiaries. Virus levels vary widely from beekeeper to beekeeper. Some of the samples had high levels of *Nosema ceranae*. All colonies appeared generally healthy in the early sampling, but some damage from varroa parasitism was seen in some of the later sampled apiaries.

None of the wax sample results from 2019 have been received, but we did receive the results on the wax samples collected in 2018. All had detections of pesticide residues with the number of individual compounds detected ranging from 11 to 29 per sample. A wide range of agricultural chemicals in addition to varroa treatment chemicals were detected with more compounds detected in areas with more row crop agriculture.

Outreach

Presentations were given to the Southeast Minnesota Beekeepers and the North Central Minnesota Beekeepers in March. Covered topics included a synopsis of the National Honey Bee Health Survey to date, managing honey bee pests found in Minnesota, maintaining strong colonies, using disease resistant stock, and raising queens from colonies that also have good beeking traits.

For More Information

Angie Ambourn
Supervisor, Pest Detection and Export Certification Unit
angie.ambourn@state.mn.us
651-201-6073