Announcements

1. The Honey Bee Health Coalition (HBHC) has released a document to help veterinarians and beekeepers identify American Foulbrood and European Foulbrood and navigate the new Veterinary Fee Directive. Mary Reed (Texas Apiary Inspection Service), Dewey Caron (University of Delaware), and Dick Rogers (Bayer Bee Care Center) crafted this document with input from the rest of the Coalition. The complete document is available at HBHC website: https://honeybeehealthcoalition.org/foulbrood/.

2. The phage-based product, Broodsafe, is in process of being distributed. Tammy Horn pre-ordered a package of the product and it arrived two weeks ago. For more information about Broodsafe, check out their website: https://www.broodsafe.com/.

3. The Canadian Association of Professional Apiculturists (CAPA) released a new translated version of their disease manual. It is now available in English, French, and Spanish. More information about the manual, as well as how to order copies, is available on the CAPA website (http://www.capabees.com/).

4. The dates for the 2019 Mite-A-Thon have been released! This year it will be held September 7th to September 14th. The goal is to have beekeepers sample their honey bee colonies and submit their results in order to raise awareness about Varroa mite infestations across North America. Beekeepers in Canada, the United States, and Mexico are encouraged to participate! More information about the event can be found here: https://www.pollinator.org/miteathon.

5. The Bee Informed Partnership has released preliminary results for the 2018-2019 Honey Bee Colony Loss Survey that show 37.7% of managed honey bee colonies in the United States were lost during the 2018-2019 winter and 40.7% were lost over the survey period (April 1, 2018 to April 1, 2019). State specific losses will be added to their website soon (https://beeinformed.org/results/2018-2019/).
A Unique Opportunity for an International Apiarist Workshop:
Apimondia-Montreal is an ideal opportunity to network with international counterparts (regulators of honey bee hives, management of pests, diseases) and discuss approaches to addressing honey bee health.

This workshop will be held on Monday evening, Sept. 9th, 2019, at the same venue as the Apimondia conference.

The Scope of the Meeting:
This unique collaboration of apiarists is not occurring elsewhere and would provide value for many of us to attend. We want to network, compare general approaches and strategies with some specific examples of important pests and diseases and provide an opportunity for future collaborations, possibly at the AIA meeting in Chicago 2020.

- The meeting will be tightly facilitated and coordinated, and we hope fun for attendees.
- The meeting will be a combination of presentations, exercises with pre- and post-materials.
- By virtue of location, the main focus will likely be North American, but we hope to engage international input / dialogue from European, Asian, South American, Australian colleagues.
- It will be a closed meeting (not a conference workshop session or discussion panel) and by invitation only.
- We intend to invite all current Provincial Apiarists and State Apiarists (though not all inspectors) and we are working to identify similar positions from EU, Asia, Latin America, Australia that could take part.

Ideally, this meeting supports our roles as regulators and offers insights into how other governments in addition to our own administer apiary programs. A report and a list of resources will help attendees apply this material to local programs.

Apimondia 2019: https://www.apimondia2019.com/
Congress Overview: https://www.apimondia2019.com/fr/program/overview/

If you are an apiarist and interested in attending, please respond to Paul Kozak (paul.kozak@ontario.ca) or Tammy Potter (tammy.potter@ky.gov) by August 15th, 2019, so adequate plans can be made.
Summer means Small Hive Beetles. As apiarists, we recommend that in addition to maintaining healthy hives of bees, beekeepers use in-hive traps or the Swiffer sheets (white, unscented). We can also recommend that beekeepers use salt around the hives. It's also a good reminder to have beekeepers completely remove a hive that has succumbed to small hive beetles, thus breaking the pupation cycle. The beekeeper can also scratch the top layer of soil to expose the pupae to sunlight, also breaking the pupation cycle.

Canada is beginning to deal with Small Hive Beetle too. Here is a recently published article by Paul Kozak (Ontario Provincial Apiarist):

Small Hive Beetle in Ontario – A pest on the move and an evolving strategy

Small hive beetle (SHB) was confirmed in southeastern USA in the late 1990’s. Since that time, SHB has spread throughout the United States and the regulatory approach across states transitioned to a management approach. While SHB may be viewed an old story in the US, the situation in Canada is one that is still unfolding. Most regions of Canada are still free of SHB (although many provinces have had detections) and there are goals in place to mitigate the establishment and spread of the pest. Furthermore, provincial apiary programs and the Canadian Food Inspection Agency (CFIA) have regulatory responsibilities to respond to SHB, and differences in pest and disease status influence requirements between provinces for the movement of bees for sales and pollination services.

Small hive beetle was first detected in Canada in 2002 (Manitoba), again in 2006 (Alberta), and in 2008 (Quebec). It was first detected in Ontario at the end of the beekeeping season in 2010 and continues to spread within the province. However, the majority of apiaries and regions in Ontario are currently free of SHB. This will change over time.

The impact and management of SHB and the current distribution of SHB in different parts of Canada is outside the scope of this article. However, the different strategies (past and present) for responding to SHB in Ontario make for a useful case study for other (i.e. future) pests and diseases in other jurisdictions.

Awareness of the pest:

The Ontario Apiary Program had been fortunate to have had very close communication with State Apiary Programs and Apiarists / Inspectors for decades. Information on identification, the relative distribution in the US and the general impact of the pest had been distributed to inspection staff and beekeepers through the provincial Apiary Program.
Regulation and Reporting:

The Ontario Apiary Program typically employs ~20 Apiary Inspectors. They were trained to identify SHB and were inspecting for the pest during regular inspections for other pests and diseases years before it was found in Ontario. In addition to inspection and sampling, inspectors have the regulatory authority to order treatment, detainment and destruction of honey bee colonies and beekeeping equipment if there is a serious pest and disease issue. However, many of the program’s regulatory goals are carried out through progressive compliance, whereby inspectors work collaboratively with the beekeeper to address a serious pest issue. Inspectors have a good working relationship with most beekeepers who generally comply with the regulations.

Beekeepers are required under the Ontario Bees Act to report pests to the Apiary Program, and in Ontario the first suspected and confirmed case was self-reported by a commercial beekeeper. Inspectors conduct ~1,000 inspections a year for regulatory purposes, with the goal of mitigating the spread of serious pests and diseases. However, in order for this to work, it is important and fortunate in Ontario that the industry largely values the regulations and the underlying intent of those regulations. This is essential to address bee health issues, not only small hive beetle.

Mapping and Communicating Distribution:

The first case of SHB was found in a county neighboring the state of Michigan. Our program refocused attention to intensive surveillance, updating methods for detection, working with epidemiologists, and using the experience and knowledge of regional inspectors to formulate a plan to inspect a large number of colonies and locations incorporating regions of highest risk (those along the MI and NY borders and the area where SHB was first reported in Ontario), including trace-outs from where SHB had been confirmed regions beyond the initial find and randomly selected yards to further challenge the notion that SHB was localized to that one region.

Knowing the distribution of the pest was essential for the development and assessment of response options. Ontario was able to map the specific areas where SHB was found and communicate this in reports to industry and other governments. Eventually, we developed a public map on our website that has become useful in communicating the distribution to beekeepers within Ontario and other provinces (including trading partners).

Detailed Map of Small Hive Beetle Positive Townships: http://www.arcgis.com/apps/webappviewer/index.html?id=40f8961d0ae54f5eae0393b0dc4bd945
Collaboration and the Experience of Jurisdictions with SHB:

This has been one of the most important and rewarding aspects of our response to SHB. The U.S. has had SHB for many years, and Ontario has benefitted greatly from the best management practices that were already developed by the U.S. This has been in the form of protocols, discussions on technique and hearing direct experiences from American inspectors and beekeepers. This was especially important in determining what works well, and where we needed to invest our resources for inspections. Since this time, we have been able to share our information and experiences with SHB with other provinces (both beekeepers and programs) and other countries.


The Next Phase:

Eventually, SHB was detected in a region of Ontario where a high proportion of commercial beekeeping operations are located, accounting for a large proportion of honey bee colonies in the province. At first, it was found in hobbyist operations, then commercial operations. At this stage, a second Quarantine Area was considered. Again, the provincial beekeeping association was consulted. Both industry and government agreed that a second Quarantine Area, and the continuation of depopulating SHB positive colonies, would not be reasonable or feasible.

For the next phase of mitigating SHB, government specialists and industry representatives worked together to develop options. This was one of the most useful exercises in my opinion. Even when government holds the decision on options, those options are in better shape with the industry’s input. These options were critiqued by all involved to end up with a refined strategy that would still mitigate the spread of the pest, incorporating a regulatory response with a greater emphasis on working with beekeepers directly on best management practices and biosecurity. Newly positive locations were still detained by an order (prevented from moving) with no destruction pending review and implementation of biosecurity practices.
Where we’re at now:

In spring 2019, the Quarantine Area was lifted at the request of the Ontario Beekeepers’ Association. Ontario colonies are still being exported for pollination services to other provinces and for sale to some of the same provinces as before. These exports have included additional requirements and take into account the SHB status of the region of Ontario and of the beekeeping operation / bee yard. Ontario provides inspection reports to the receiving province and that province determines whether or not the colonies may enter. Some provinces do not allow Ontario colonies, but will accept queens. This is reassessed every year with review of the SHB status of Ontario and the other provinces.

Ontario continues to confirm reports of SHB in new regions and includes SHB as part of regular inspections occurring throughout the province. The strategy for SHB is focusing more and more on management and working with the industry to adapt to the pest, even in advance of most beekeepers and regions being positive. SHB will continue to spread in Ontario and North America. Strategies to a pest must evolve with the pest and both government and industry must collaborate, learn from the experiences of pest spread, learn from regions that have the pest and improve biosecurity.

Finally, we cannot lose focus on other existing pest issues (Varroa management, and brood diseases) or the next pest on the horizon (*Tropilaelaps*).

**Small Hive Beetle Quarantine Revoked in Southwestern Ontario:** http://www.omafra.gov.on.ca/english/food/inspection/bees/revoke_quarantine.html

**Ontario Apiary Program:** http://www.omafra.gov.on.ca/english/food/inspection/bees/apicultu.html
In the U.S., the Environmental Protection Agency has removed 12 neonicotinoids from the market. Other products with labels that require communication with beekeepers is as follows: Actara, Admire Pro, Advise, Agri-Flex, Agri-Mek, Alias, Apta, Bexar, Brigadier, Centric, Couraze, Endigo, Exirel, Flagship, Imidashot, Lada, Leverage, Macho, Malice, Meridian, Midash, Montana, Nuprid 4F, Pasada, Obelisk, Skyraider, Swagger, Tempest Dual-Action, Torac, Voliam-Flex, Belay, Arena, Scorpion, Venom, Certador, Poncho, Zylam. Because this issue of pesticides is so volatile, Tammy has posted this list on the Kentucky Department of Agriculture (KDA) Honey Bee website (https://www.kyagr.com/statevet/honeybees.html) as well as the KDA Regulatory website (https://www.kyagr.com/consumer/agricultural-branch.html).

July 23rd, 2019: Monarch Conservation Webinar - How to Plant for Success: the Trials and Triumphs of Establishing Pollinator Habitat
Use the following link to register for the webinar: https://docs.google.com/forms/d/e/1FAIpQLSd9KASbqjBqUXQYOijyhXny7Ofk33vO_p4vf80YriZoBkzYhQ/viewform

2019 Summer Bee Conferences:
- **July 8-10. Heartland Apiculture Society, Western Kentucky University, Bowling Green.** Full slate of events including a working apiary, vendors, and social activities. For more details, see website heartlandbees.org.

Final Thoughts