Technology Transfer Program

BC Honey Producers' Association

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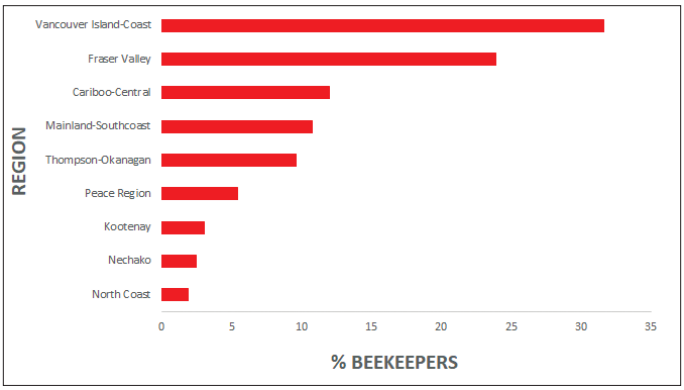
NEW BC-TTP MEMBER

BC-TTP would like welcome Becky Miller as the new member of the team. Becky's role as Admin Assistant will be fundamental in supporting, organizing, and maintaining the back end of the program. Becky has vast experience in a variety of managerial and operational positions, and she is an enthusiastic beekeeper and gardener.

THE SURVEY

BC-TTP sent a survey on November 2021 to all the members of British Columbia Honey Producers Association (BCHPA). We had a great response from beekeepers and beekeepers' clubs; we had more than 170 participants! The graph below shows the number of participants from each region.



The survey helped the team identify priorities for 2022 and future years. Also, we got to know the beekeeping community better.

Here is what we found:

More than 51 % want to grow their operation in the next years, and a significant number of beekeepers (34%) aims to keep between 11 and 50 colonies.

Beekeepers want to grow!

Most beekeepers (67%) have between 1 to 10 honey bee colonies (Fig. 1).

NUMBER OF COLONIES

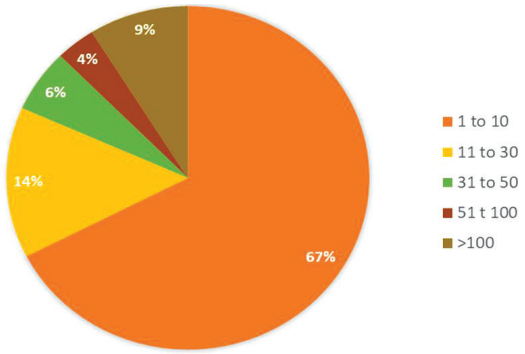


Fig. 1 Percentage of beekeepers managing between 1 to 10, 11 to 30, 31 to 50, 51 to 100, and >100 colonies.

MAIN PURPOSE

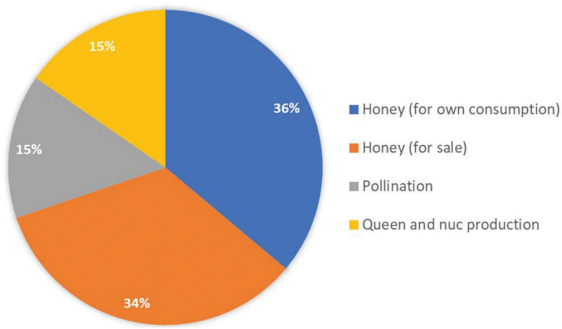


Fig. 2 Percentage of beekeepers producing honey (for their own consumption), honey (for sale), providing pollination services, and focused on queen and nuc production.

Most beekeepers focus on honey production (70%), they use the honey for themselves (36%) or to sell it (34%) (Fig. 2).

However, there is an imminent will for beekeepers to expand, not only to sell honey, but also to produce nucs and queens! (Fig. 3)

Some mentioned an interest in pollination services and other activities (we are curious to know what they have in mind; Fig. 4).

DO YOU WANT TO EXPAND YOUR OPERATION?

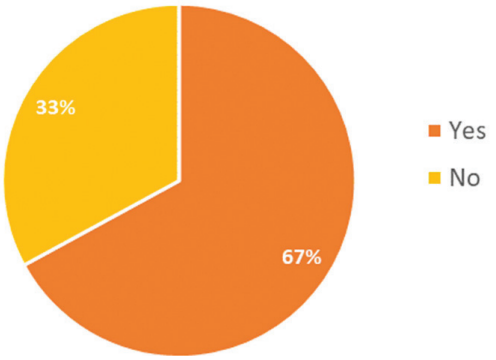


Fig. 3 Percentage of beekeepers that would like to expand their operation.

PREFERRED *VARROA* MONTIORING METHOD

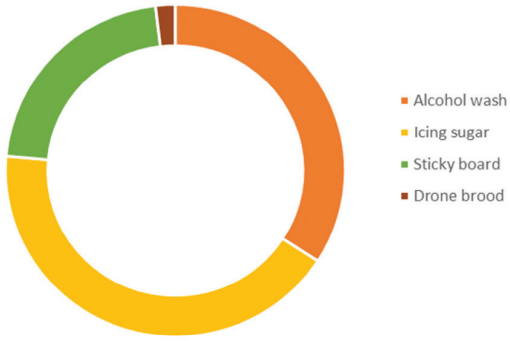


Fig. 4 Percentage of beekeepers that prefer the alcohol wash, icing sugar, sticky board, or drone brood sampling method to monitor for varroa.

We also found that most of the participants monitor for Varroa, and the preferred method is icing sugar, followed by alcohol wash and sticky papers (Fig. 4).

Although most beekeepers (86%) use Integrated Pest Management (IPM) strategies to control Varroa (Fig. 5), Varroa parasitism was selected as the number one challenge for beekeepers, followed by overwinter colony mortality (Fig. 6).

FUTURE PLANS

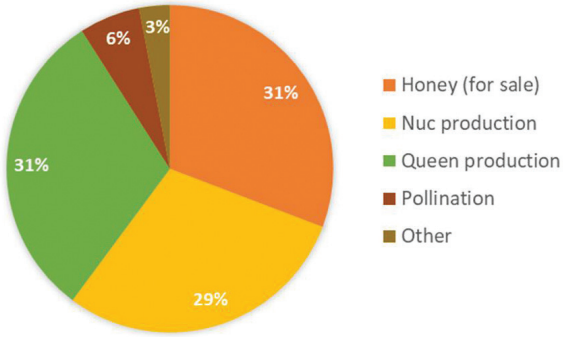


Fig. 4 Percentage of beekeepers that are planning to produce honey for sale, produce nucs and queens, provide pollination services, or other activities (not specified).

BEEKEEPERS THAT USE IPM

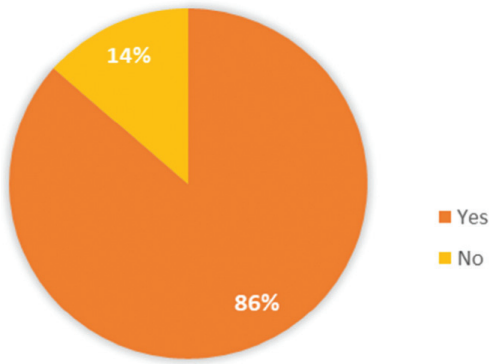


Fig. 5 Percentage of beekeepers that implement Integrated PestManagement (IPM).

NUMBER 1 CHALLENGE

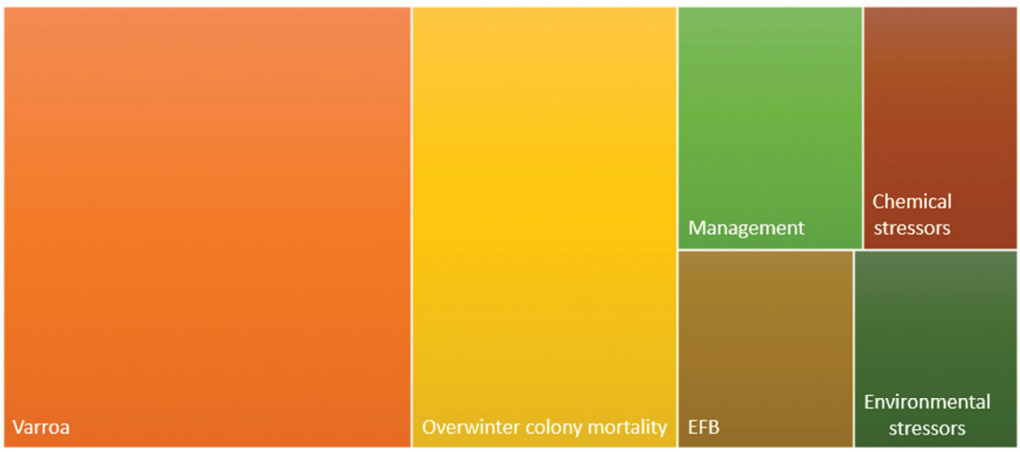


Fig. 6 Ranking of challenges faced by beekeepers; the largest area represents the biggest challenge.

OUR 2022 PROJECTS

BC-TTP is planning a number of projects for 2022. The projects are based on the challenges that beekeeping faces in BC and are focused on:

- Integrated Pest Management (IPM)
- Best Management Practices (BMP)
- Sustainable Beekeeping
- Selection and Breeding
- Supporting local food production
- Climate change actions for agriculture and beekeeping

Varroa destructor parasitism was identified as the main challenge for beekeepers in BC, and it is the main cause of overwinter colony mortality in Canada (Currie et al., 2010). Therefore, one of our main projects for 2022 will focus on the fundamental component of IPM to control varroa mite levels: the varroa economic threshold (ET). ET is the percentage of mites in a honey bee colony that causes economic damage (Brazman et al., 2015). Knowing the varroa ET is important, as it will determine the beekeeper's actions to control the mite, like treating with organic or synthetic acaricides, or applying cultural methods to control mite levels (Pernal and Clay, 2013).

So far, the ET for varroa has been calculated for parts of North America, including eastern Canada, but has not been estimated for BC (Delaplane and Hood, 1999; Currie and Gatien, 2006; Guzman-Novoa et al., 2010). Also, changing environmental patterns and new viral variants linked to varroa parasitism could be influencing the ET for varroa (Sorker et al., 2021). The information generated in this project will be used in future studies, such as evaluating the efficacy of varroa treatments.

The project will need the participation of beekeepers across the province - it will be a Citizen Science study to gather information from participating beekeepers on varroa mite levels in the spring and fall, and on honey bee health parameters (colony strength, honey yield and overwinter success). Also, we will be collecting varroa mites on-site to identify and quantify viruses. Here is more information on how to participate:

2022 Citizen Science Study to determine varroa ET in BC

When? March 31, 2022 to March 31, 2023

Who? Beekeepers in British Columbia with at least 1 honey bee colony

How? I'm a beekeeper and I want to participate!
1. Send us an email to confirm your participation (info@ttp-bchpa.ca).
2. You will receive an invitation to join a webinar or watch a short video. The webinar/video will explain the importance of the project, the significance of your participation, how and when to fill the online form to collect data.

Optional:
3. Share your experience monitoring for varroa on Instagram (tag @bc-ttp and use the #BCTTPvarroa).
4. Join us at the BCHPA – Semi-Annual Educational days to know more about the project.
5. Share this information with other beekeepers, local clubs, and associations.
6. Check for updates in *BeeScene*, Instagram (@bc-ttp) and our website (http://ttp-bchpa.ca).
7. Send us your feedback with suggestions and comments (info@ttp-bchpa.ca).

We would like to thank all the beekeepers for the warm welcome of the BC-TTP, we are looking forward to working with you this coming season.

Acknowledgments: We gratefully acknowledge the financial support of the Province of British Columbia through the Ministry of Agriculture, Food and Fisheries.

Thanks to our collaborators: BCHPA executive and the British Columbia Bee Breeders' Association. Also, to our collaborators Dr. Leonard Foster, University of British Columbia; Dr. Marta Guarna, Agri-Food Canada; Dr. Olav Rueppell, University of Alberta; Dr. Rob Currie, University of Manitoba; Dr. Ernesto Guzman-Novoa, University of Guelph. ❀

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