

National Colony Loss and Management Survey Frequently Asked Questions

Tips and Tricks to answering the Survey

Q: Why should I bother? What difference will it make?

A: A survey is only as good as its response rate. The more respondents, the more representative our results are. Thanks to your answers, we realize two objectives:

One, we estimate the level of colony loss experienced in the US. We have done this every year since 2007. This is an important legacy. We wished we had started it 20 years ago. Comparing the present to the past allows us to see how the situation progresses (or fails to progress).

Two, we can analyze correlations between management practices and colony loss. The same way human epidemiologists study our best and worst habits, and how it can impact our health. Correlative data has its limits, but it is a great way to identify hypotheses that can then be tested experimentally (which we also do in our lab and in the field).

We live in a stressful world. We know bees are also facing many threats, and sometimes those threats are outside of a beekeeper's hands. We are not ignoring them and we actually hope the data gathered will help us develop models to inform us about those other environmental variables, which is why we also ask about yard location (zip codes).

Q: I already took a survey 2 months ago. Is this survey different?

A: The Bee Informed Partnership Loss and Management Survey is an annual survey which opens every year between April 1st and April 30th. We know there are more and more groups starting questionnaire-type surveys: we all want to know how the bees are doing! Our survey has been around for the past 14 years (since 2007) and we owe it to the dedicated beekeepers supporting us every year.

Some of you may be contacted independently by the National Agricultural Statistics Service (NASS) of the USDA to participate in their quarterly colony loss survey. We encourage all beekeepers contacted by NASS to answer both the Bee Informed Partnership and NASS surveys.

Also, the Bee Informed Partnership is a very active organization with several programs running in parallel, such as the *Sentinel Apiary program*. We also help to manage the *APHIS National Honey Bee Survey* that is run by the vanEngelsdorp bee lab as University of Maryland. Both programs each have a short questionnaire that we ask beekeepers to fill out after they sample their colonies.

This survey is different, as are the data gathered, target audience, reports and analyses.

Q: Does this survey require a login? I could not access the survey.

A: The survey should open without any login needed, but several people seemed to face the same issue when following the link provided in personalized emails. According to our IT staff, this might be resulting from some various ad block settings. In any case, if you encounter a problem trying to access the survey, please close your browser and re-try the original link on the main page of our website, or copy the URL below directly into your browser. We apologize for the inconvenience.

Q: I stepped away from my computer and the survey timed out. Can I take it again?

A: Sure, it gets easier with every time you take it! Just kidding. For real: Yes, you can take it again. We are filtering the survey to eliminate duplicates so we will only consider your most complete set of answers. If that happened near the end of the survey, please contact us, we might be able to help you.

Q: You are partial to the data and do not take all respondents into account.

A: All data points are super important. You are right though, we do exclude some survey responses, mainly when the numbers don't add up. BUT, we have a very strict protocol before invalidating answers (which we explain in the peer-reviewed publications every year). If more than 100% loss or less than 0% loss results from provided colony numbers, we have to assume that something went wrong during the data entry and consider that response invalid. We surely try to include as many surveys as possible. Nathalie and Selina will be hand sifting through the answers while validating data entries. They'll also have a huge coffee pot next to them for extra power.

Q: I am a commercial beekeeper / I am a small scale beekeeper. Your questions are not made for me.

A: Commercial beekeepers and small-scale beekeepers run their operations differently and tend to keep slightly different records. We designed <u>two versions of the survey</u> to capture loss and management information in a format that fits each group best. We specifically worked with a panel of beekeepers for input. Both versions previews are available here (https://beeinformed.org/take-survey/). Don't hesitate to print your version in advance of taking the survey online so that you can be prepared for our inquisitive questions.

Q: I have not been able to assess the survivorship of my colonies yet as we are way up North.

A: We acknowledge this is a recurring limitation to surveying in April. Please give us your best estimate as to the number of colonies alive on April 1_{st}. Any colony death that occurred after would theoretically be captured in next year's survey. The survey will be open until April 30_{th} so even if you cannot assess your colonies until later in April, that is fine and we would be grateful for the data.

Q: I think you are not covering all management issues in your survey / I think your survey is too long.

A: In 2021, the survey actually changed! In response to participants' comments, we shortened the management section by focusing on two important topics this year – Queens and New Colonies. Next year we will focus on another important topic. This allows us to rotate through topics while keeping each survey short.

Continue to share your thoughts with us! There is a specific comments box and we are more than happy to get your input. Based on the participants' recommendations, we try to improve the survey every year. We do not want to keep you on the computer for hours. Therefore, we are trying to reach an optimum between getting enough details and making the survey too fatiguing. Most questions also have <u>open entries</u> that should allow beekeepers to cover aspects they feel are missing from the main proposed answers. Nathalie, a postdoc in Dennis vanEngelsdorp's lab (UMD), and Selina, a PhD student in Geoffrey Williams' lab (Auburn) will look at every single survey, and be grateful to read some nice messages. It makes our days much better!

Q: This survey is more complicated than my tax declaration!

A: It is that time of year, isn't it? The survey aims at estimating the rate of colony loss experienced by our respondents, and documenting the type of practices beekeeper use in their operation last year. It seems like easy questions, but you all know this: "Ask 5 beekeepers a question and you get 15 answers". The survey aims at making the data very consistent for all beekeepers by removing interpretations. If you want to know what questions we ask in advance, don't hesitate to look at the preview (it's 500 times easier to read through too). **Also, the 2021 survey is now way shorter! The management section is now focused on a single topic, and**

Also, the 2021 survey is now way shorter! The management section is now focused on a single topic, and will change every year.

Q: What does the BIP team get out of this?

A: Well, thank you for asking. First of all, you are supporting the students working on this survey. They survey has already be the basis for a lot of graduate students' chapters and published in a series of peer-reviewed scientific papers (listed here: https://beeinformed.org/citizen-science/loss-and-management-survey/). Based on your answers, we can also point out important topics to researchers so that they don't run out of projects.

And depending on your interests there are some things **YOU** get out of participating (apart from proudly representing beekeepers in our country):

I'm mostly interested in...

- Helping! Thank you. Without you we couldn't do any of this!
- Bees If you are a beekeeper, you have been stung for life. The honey bees are a special kind of bees, but they're not the only bees (or even the only pollinators) out there which are in trouble. We are all trying to do our part in understanding and helping out our pollinators. This survey is part of this effort. It's probably not the only thing you can do, but it's probably one of the best things you can do in less than 1 hour.
- My bees Beekeepers love to experiment with their own bees to test what works and what doesn't. With this survey, it is as if you experimented with everyone's bees. Go to our Data Explorer page

(<u>https://research.beeinformed.org/</u>) to compare treatments and practices. Also look through our other programs to see how we can help you the rest of the year.

- Learning You're our kind of people! Take advantage of our reports to tease out the information that interests you. We will publish our Best Management Practices soon. Also don't hesitate to print a copy of the survey preview and use it to take notes all through the year.
- Ranting Go ahead. We all need to do it from time to time. You'll feel better. Just remember we're all on the same team and when we work together, we can accomplish great things.
- Money Our Data Explorer might interest you: you can look up and pick the practices and products associated with the best results. It is correlative data, not cause and effect, but at least it would allow you to rethink using products that are seemingly not showing any effect.
- Science. Bees are sentinels of our precious environment. Your data is contributing to the better understanding of the health of the honey bees. The question of honey bee health is complex and integrates many factors, some of which are not in the hand of beekeepers. By focusing on management practices, we are choosing to determine what beekeepers can do, given our current circumstances.