

Join the largest honey bee disease monitoring program in the world. Get actionable data and participate in cutting edge research.



The Basics

The Sentinel Apiary Program is a colony health monitoring program that helps inform beekeeper management decisions, while simultaneously providing the Bee Informed Partnership with some of our most valuable data. Beekeepers enrolled in the Sentinel Program monitor 4 or 8 colonies in one apiary for 6 months.

Each month, participating beekeepers take a sample of about 300 bees from each Sentinel colony. They also provide information about their colonies including queen status, brood pattern, and frames of bees, as well as any management (such as feeding, treating, supering, etc.).

Samples are then mailed to our lab at the University of Maryland where we process them for *Varroa* and *Nosema*. Beekeepers receive a report of their results within 2 weeks of arrival so they can make timely management decisions. To date, **295 beekeepers in 33 US states** have taken over 10,000 samples from Sentinel colonies!



Early Warning

The goal is to collect enough information so that Sentinel Apiaries become an early warning system to alert beekeepers of potential problems due to increases in *Varroa* and *Nosema*. **One Sentinel Apiary in a county can empower all beekeepers in that area to take early action to protect their colonies.**

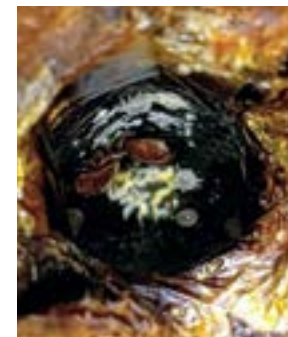
Pricing

Apiary Size	Price
4 Colonies	\$275
8 Colonies	\$499

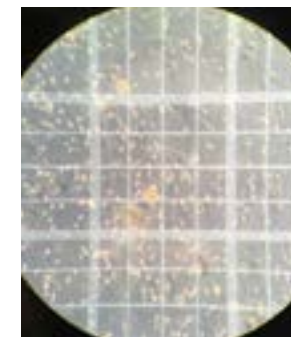
Monthly Reporting

You receive detailed monthly reports (May - October) on your *Nosema* spore loads and *Varroa* mite loads in comparison to regional and national averages. This data can help you understand the links between management practices, disease, and colony loss. **Monitoring your apiary over an entire season will help you learn what management and treatment strategies work best for you.** In addition, your participation will contribute towards the data collection being used for research aimed at reducing honey bee colony losses long term.

Varroa mites



Nosema spores



Be Included. Be Involved. Bee Informed.

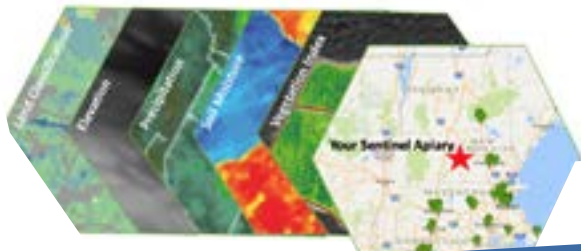
BEEINFORMED.ORG

Research goals

Your Sentinel data directly contributes to valuable research that analyzes honey bee diseases to minimize colony loss.

This on-going research includes:

- **Inter-apiary Varroa transmission.** Sentinel data revealed rapid increases in *Varroa* populations that cannot be explained by normal mite reproduction, indicating a possible outside source of mites. This has prompted an investigation to the extent to which *Varroa* from highly infested colonies can spread to nearby apiaries.
- **Correlation of internal abnormalities with colony loss.** This could pave the way for a new method of colony sampling to better predict colony loss.
- **Collaboration with NASA-Develop** to investigate landscape effects on Sentinel colonies using satellite imagery, allowing us to look at correlations between precipitation, soil moisture, and land cover.



Sentinel 2019 Participation

Don't see a Sentinel Apiary in your state?
Be the first!



Join the movement, and stay informed!

Questions? Contact Sentinel Coordinator Dan Reynolds at danrbrl@umd.edu or visit beeinformed.org/sentinel to join the program and take advantage of the many services we offer. The BIP website is full of other useful information including:

- Latest survey results showing winter loss trends, management techniques and regional reports.
- The BIP blog, where team members convey their experience, knowledge, and opinions about their work with bees.
- Sign up for updates to stay **informed!**



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SENTINEL: Bee Informed Partnership

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