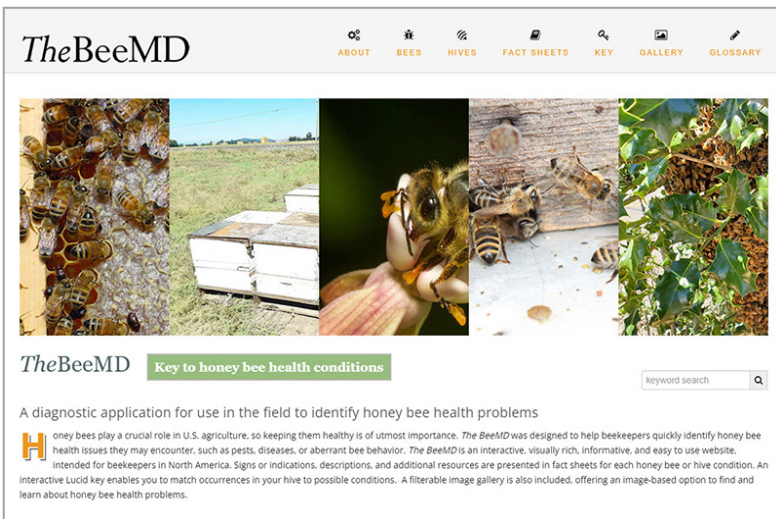


ITP and Pollinator Partnership present

# TheBeeMD

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<https://idtools.org/thebeemd/>



TheBeeMD

ABOUT BEES HIVES FACT SHEETS KEY GALLERY GLOSSARY

**TheBeeMD** Key to honey bee health conditions

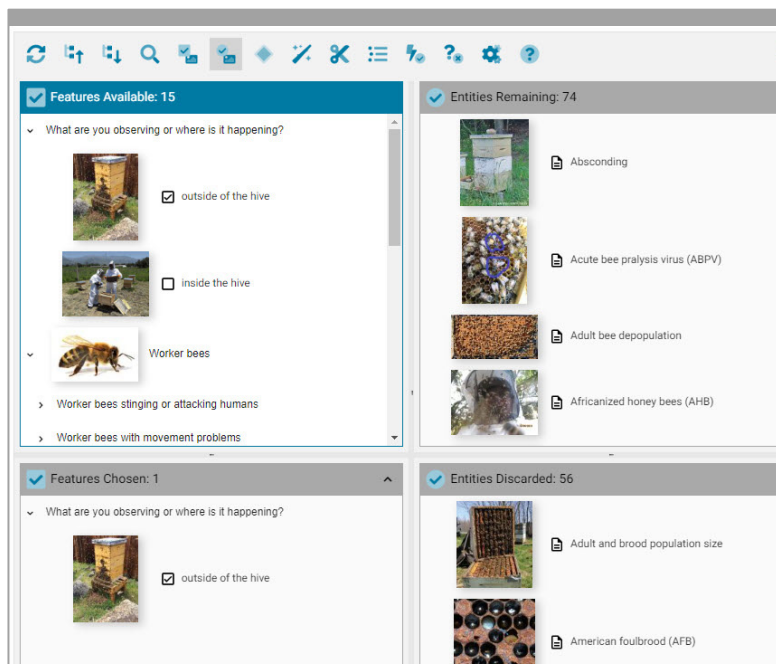
A diagnostic application for use in the field to identify honey bee health problems

Honey bees play a crucial role in U.S. agriculture, so keeping them healthy is of utmost importance. The BeeMD was designed to help beekeepers quickly identify honey bee health issues they may encounter, such as pests, diseases, or aberrant bee behavior. The BeeMD is an interactive, visually rich, informative, and easy to use website. Intended for beekeepers in North America. Signs or indications, descriptions, and additional resources are presented in fact sheets for each honey bee or hive condition. An interactive Lucid key enables you to match occurrences in your hive to possible conditions. A filterable image gallery is also included, offering an image-based option to find and learn about honey bee health problems.

The Western honey bee, *Apis mellifera*, plays a vital role in agriculture in the U.S. as well as worldwide. While beekeepers manage honey bee colonies to support crop pollination, there are challenges associated with successful beekeeping. *The BeeMD* aims to help beekeepers and others concerned with bees quickly identify honey bee health issues, through an interactive, visually rich, informative, and easy to use website. First released to the public in 2016 and now on the idtools.org platform, *The BeeMD's* original web content has been restructured and streamlined, and more information and many new photos have been added.

*The BeeMD* offers users a variety of resources to aid in the diagnosis of honey bee health issues:

- Lucid matrix-based interactive identification key
- filterable, “visual key” style image gallery
- informative, illustrated fact sheets for 102 conditions
- helpful information on bees, hives, and beekeeping



Features Available: 15

Entities Remaining: 74

What are you observing or where is it happening?

- outside of the hive
- inside the hive

Worker bees


- > Worker bees stinging or attacking humans
- > Worker bees with movement problems

Entities Discarded: 56


- Adult and brood population size
- American foulbrood (AFB)

### Nuc hives


Nucs are another relatively common means of starting a colony of bees. A nuc (nucleus, sometimes nook or nuk) colony is a smaller version of a full-sized colony. A nuc may be established with 1-4 frames of brood and 1 or 2 support frames of bee bread and honey. Often a nuc is housed in a smaller hive body (a nucleus hive). When purchased as a starting method, the 3-5 frames of the nuc are transferred to a standard hive box at the intended apiary site.



5-frame nuc colony; photo by Dewey M. Caron



Nuc colony; photo by Dewey M. Caron



5-frame nucs ready for sale; photo by Dewey M. Caron

A nuc grows faster than package bees. Often a second box is added after 3 weeks of initial transfer to a standard hive, depending on the season. Nucs, like package bees, should initially be fed sugar syrup. In some seasons, when started early, nucs can even provide some surplus honey to harvest.



Resources – Nuc hives

Dadant and Sons Nucs, Swarms and Colonies. Pt. 1. Accessed 2024. <https://www.dadant.com/learn/nucs-new-hive/>

“Making Nucleus Colonies” Youtube, uploaded by Paul Kelly, University of Guelph Honey Bee Research Centre, October 13, 2022. <https://www.youtube.com/watch?v=hczet2BK6r8>

### Swarm capture

Capturing a swarm of bees is another means of starting a new hive. Bees may be transferred from the swarm bivouac site (vegetation or a structure) directly into a hive, or the swarm may be captured by shaking the bees into a bucket or convenient vessel and then subsequently transferring the bees into a hive. The swarm doesn't always stay when hived.



Screenshots from the tool: above, supplementary helpful hive information and images about nucs and swarm capture; at left, the Lucid interactive key showing the “outside of the hive” feature-state selected.

*The BeeMD* is one of 49 online identification tool websites produced or hosted by the USDA Identification Technology Program (ITP). To learn more about ITP's products, including mobile apps and image collections, please visit <http://idtools.org> or email the ITP team at [itp@usda.gov](mailto:itp@usda.gov).