



Survey of Honey Bee Pests and Diseases

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Honey bee health decline has been documented for years. Over the last 8 years, winter losses have been unsustainably high ranging from 22% to 36% nationally. In the previous 2 years of the Bee Informed Partnership (BIP) Colony Loss survey (2014-2015 and 2015-2016), summer losses equaled or exceeded winter losses. These rates of loss threaten the viability of beekeeping operations and the production of crops dependent on bees for pollination as well as honey production. Pollination is responsible for over \$15 billion in added crop value, particularly for specialty crops such as nuts, berries, fruits, and vegetables. Of the 2.5 million colonies of bees in the United States, the almond crop in California alone requires approximately 2 million colonies, and this need is projected to increase significantly over the next few years. Growers depend increasingly on beekeepers from other states to transport honey bee colonies across the country to meet the pollination demand (a practice known as migratory beekeeping).

The known negative honey bee health challenges are attributable to parasites, diseases, poor nutrition, loss of forage habitat and environmental toxins. A national survey of honey bee pests and diseases has been funded annually since 2009 by the USDA Animal Plant Health Inspection Service (APHIS) and conducted in collaboration with the University of Maryland (UMD), USDA Agricultural Research Service (ARS) and State Apiary Specialists. This national survey has documented which bee diseases, parasites, or pests of honey bees are present and/or likely absent in the U.S. Specifically, this survey has verified the absence of the parasitic mite *Tropilaelaps* and other exotic threats to honey bee populations (e.g., *Apis cerana* and slow bee paralysis virus). To maximize the information gained from this survey effort, collected samples are analyzed for other honey bee diseases and parasites known to be present in the U.S. This cross-country survey continues to be the most comprehensive honey bee pest and health survey to date, and provides essential disease and pest load base line information. This information will help place current and future epidemiological studies in context and thus may indirectly help investigations of emerging conditions.

- [USDA Honey Bee Pests and Diseases Survey Project Plan for 2017](#)
- [Survey Questions and Answers](#) (PDF; 19 Kb)
- [Webinar: 2012 Honey Bee Survey](#)
- [US Postal Service Regulations for Mailing Live Bees](#)
- [Information Sheets](#)
 - [Apiary Data Information Sheet](#)
 - [Tropilaelaps Information Sheet](#)
- [Protocols](#)
 - [Protocol for National Honey Bee Survey](#) (PDF; 1.58 Mb)
 - [Protocol for Sampling Pollen in Hives for Pesticide Residues](#) (PDF; 275 Kb)
 - [Wax Sampling Protocol](#)
- [Training Videos](#)
 - [State Apiary Inspectors and University Specialists Collecting Samples](#) (Windows Media; 112 Mb)
 - [Sampling Pollen in Hives for Pesticide Residues](#)
 - [Wax Sampling Protocol Video](#)

