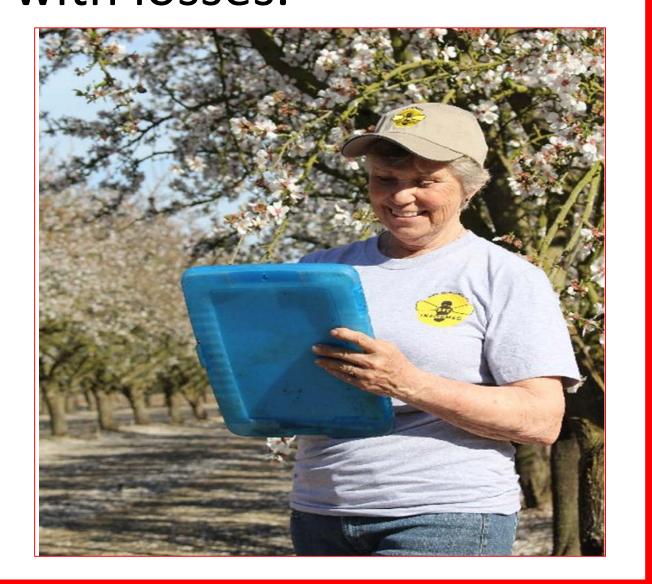


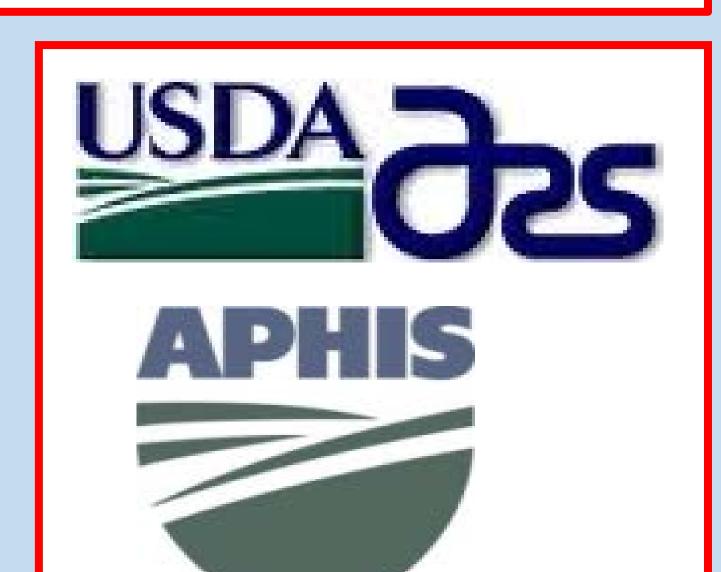
The Bee Informed Partnership: Using Data to Identify Actionable Results and Trends

Project Leaders: Dennis vanEngelsdorp and Karen Rennich, University of Maryland Project Cooperators: Ellen Topitzhofer and Dan Wyns, Oregon State University; Katie Lee, University of Minnesota; Rob Snyder and Ben Sallmann, UCCE-Butte County; Megan Mahoney, Texas A&M University;

BIP Research Database Inputs

Surveys: The annual BIP National Management and Winter Loss Surveys allow management practices to be correlated with losses.

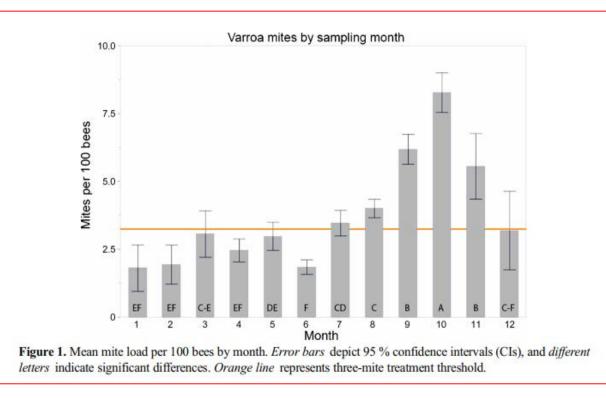




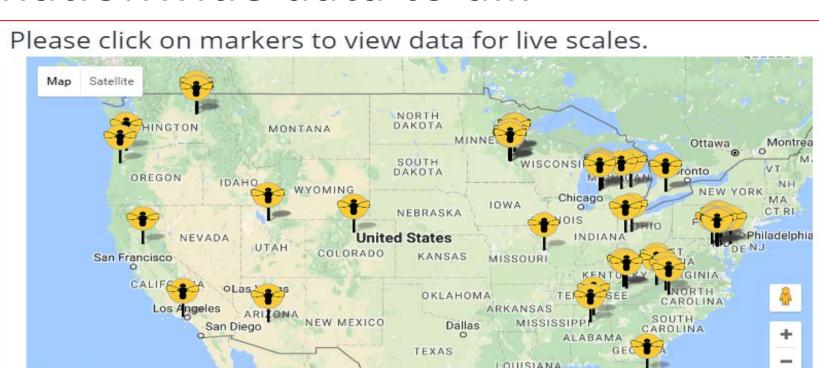
Historic datasets: By incorporating previous and ongoing datasets current status and trends can be compared to historical averages.

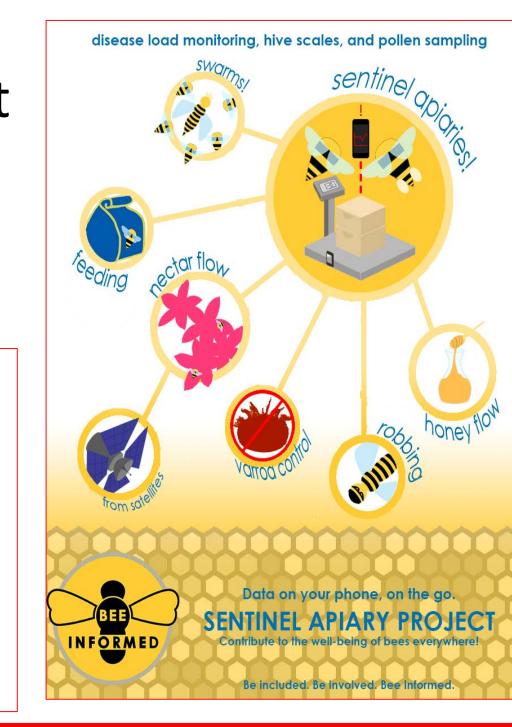
On the ground testing: Tech Transfer Teams work closely with over 100 large commercial beekeeping operations across the country. Tech teams are able to help beekeepers evaluate and improve management practices by monitoring colony health, disease levels, parasite loads, nutritional needs, and pesticide exposures through hands-on fieldwork.





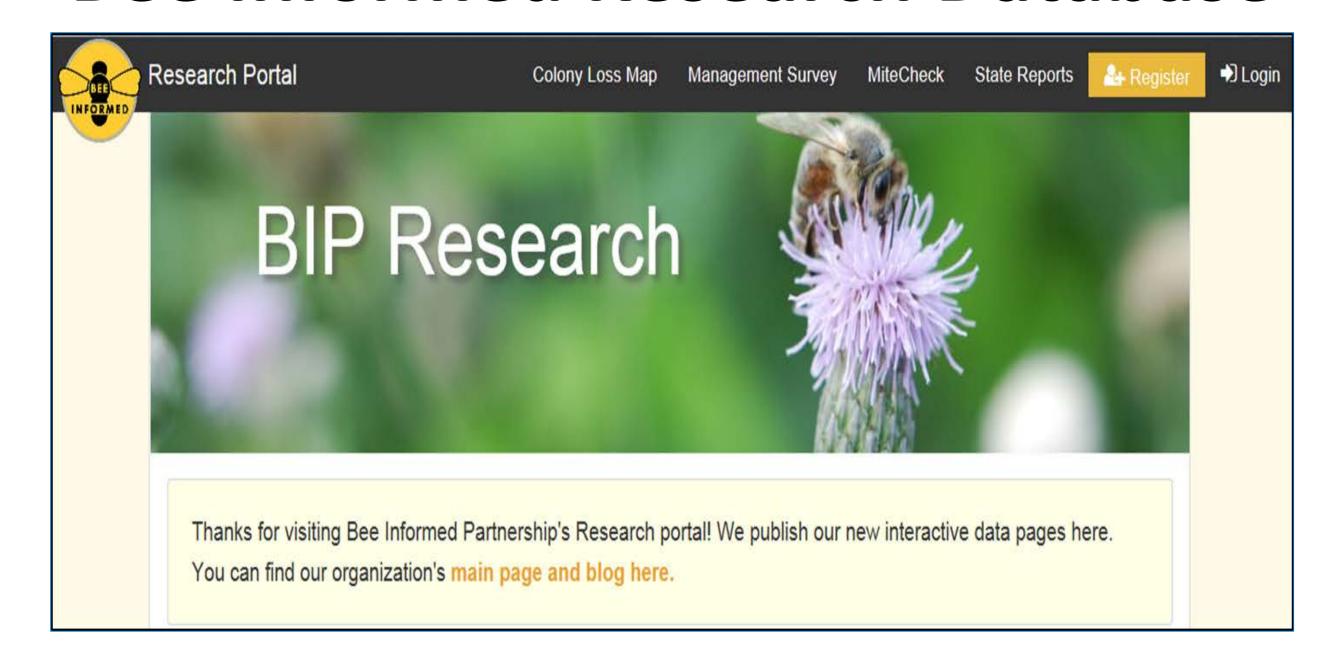
Sentinel Apiaries: A collaborative project open to all beekeepers that brings modern technology to beekeeping and provides real-time nationwide data to all.





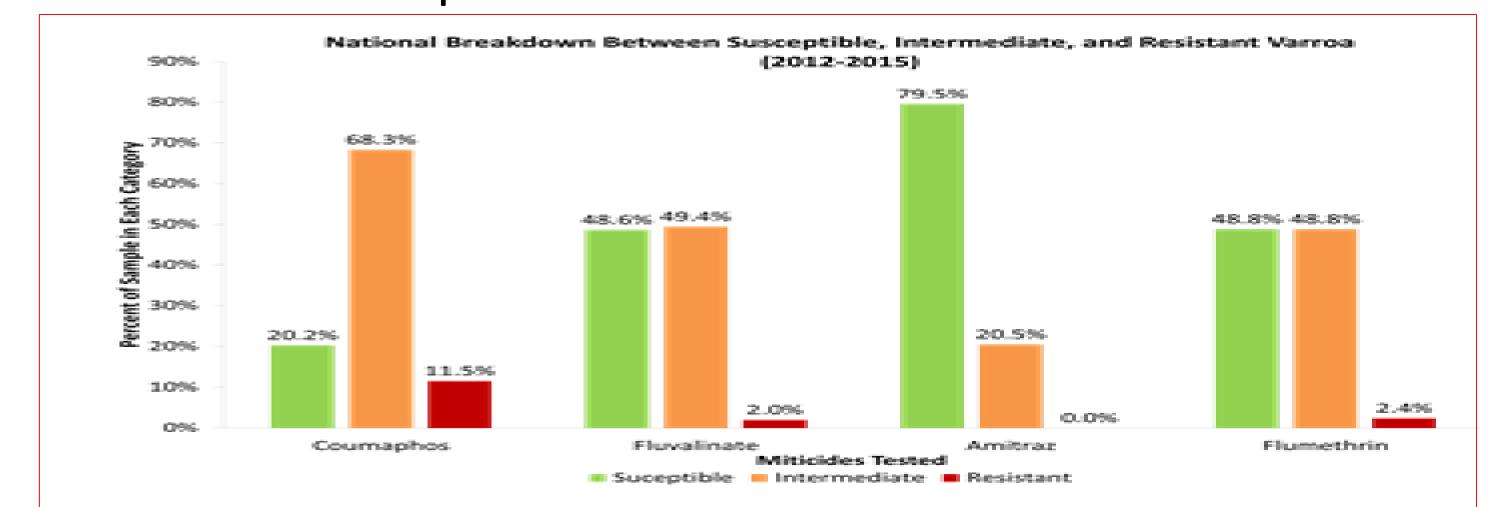
The Bee Informed Partnership (BIP) is a non-profit organization that serves as a conduit between the beekeeping industry and the academic community. BIP uses multiple data sources to generate and inform a database of unprecedented scope within the beekeeping world. By accumulating and analyzing these data, BIP is able to create a variety of actionable outputs and reports to serve individual beekeepers as well as the industry as a whole.

Bee Informed Research Database



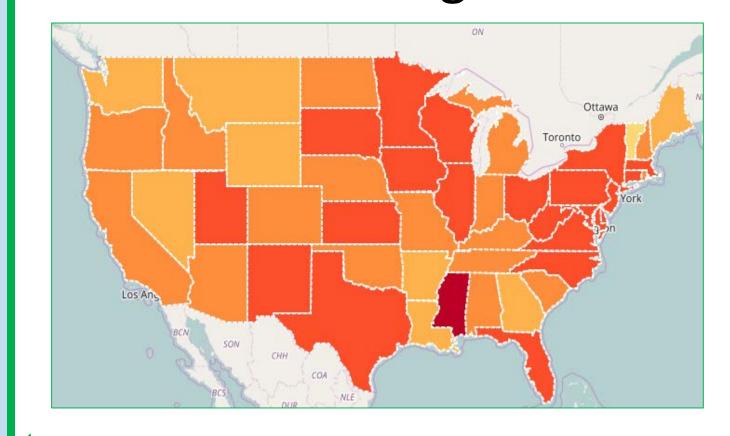
www.bip2.beeinformed.org

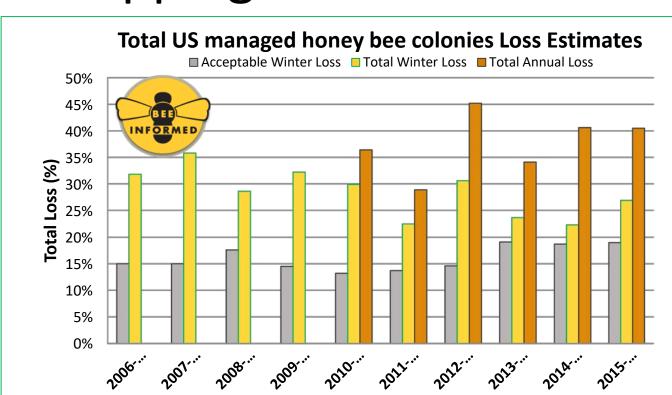
Laboratory Assay Results: The most current laboratory based studies contribute to overall understanding of bee health are incorporated into the database.



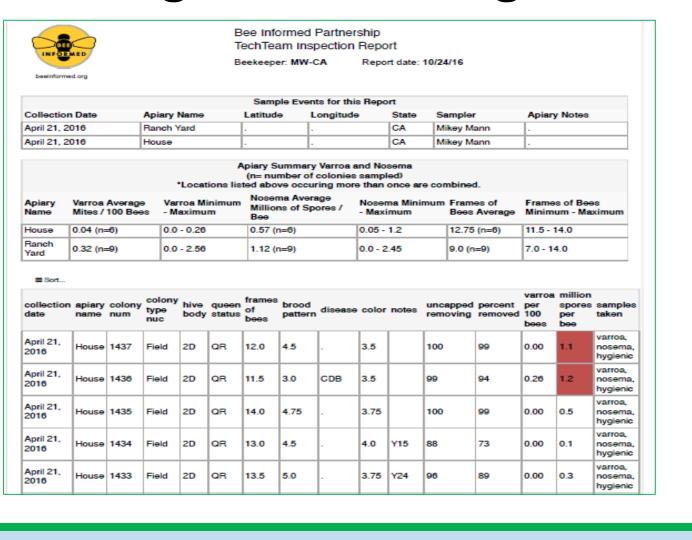
Results and Outputs

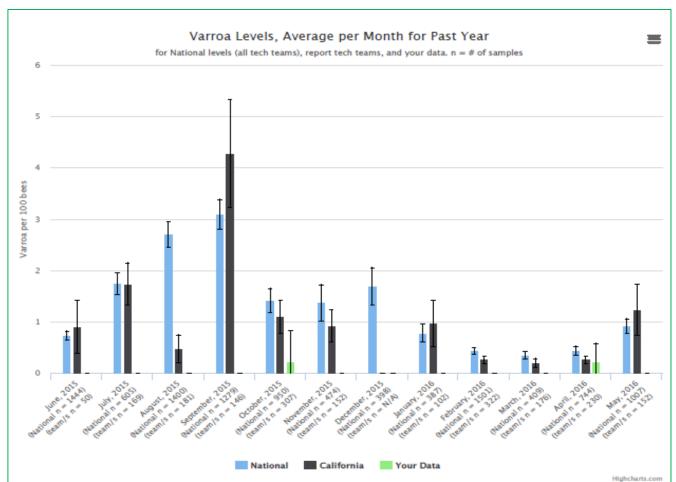
Colony Loss Statistics: Provide current and historical quantification of colony mortality at both national and local levels through interactive mapping feature.



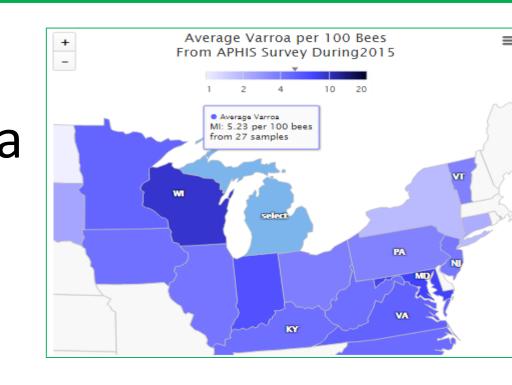


Individual Reports: Beekeepers receive results in near real-time allowing them to implement appropriate management strategies in a timely manner.





APHIS State Reports: An interactive feature allowing users to access data on colony health metrics captured during the National Honey Bee Survey (NHBS) dating back to 2009.



https://bip2.beeinformed.org/state_reports/

Best Management Practices: Through analysis of such a broad database BIP is able to make data driven recommendations for colony management including:

- Requeening
- Varroa mite management
- Supplemental feeding
- Acquiring new colonies

Acknowledgements







