Tech Team Program to Serve Commercial Beekeeping Industry in the Pacific Northwest

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PROJECT SUMMARY

Objectives:

1) Provide routine evaluation of colony health for beekeepers by obtaining samples at regular intervals round the year in the Pacific Northwest (PNW) region.
2) Determine best management practices by collecting data that includes migratory history, disease and pest control strategies/history, and supplemental feeding history for each beekeeper.

Background and Discussion:

Commercial beekeepers face a growing set of challenges to keep honey bee colonies healthy. The Bee Informed Partnership (BIP) created Tech Transfer Teams across the nation to assist commercial beekeepers in providing solutions to reduce colony mortality. With overwhelming interest and encouragement from the regional beekeeping community, BIP launched its fourth team in the Pacific Northwest (PNW). The PNW Tech Team monitors colony health in Oregon, Idaho, and Washington by quantifying disease and pest levels throughout the season from migratory beekeepers in the area. The majority of beekeepers involved in this team pollinate crops for the most of the year, including CA almonds and PNW seed, vegetable, and fruit crops.

The PNW Team is currently serves 17 participating beekeepers. The team regularly obtains samples from each participating beekeeper for *Varroa* mite, *Nosema*, virus, protein, and pesticide levels. We have 2 full-time professionals to operate the PNW team. Both team members travel around the west coast to sample each beekeeper 4 times a year. This typically includes one site visit in late winter during almond pollination followed by a spring, summer and fall site visit. Each site visit includes: a) standardized colony evaluation; and b) colony samples for further analysis of various pests and disease.

Sample results from each site visit are presented to the beekeeper in a succinct report. By providing sample results to beekeepers in near real time, we are able to assist them in determining the efficacy of their management practices and amend as needed. At the end sampling period (winter, spring, summer, and fall), we provide each beekeeper with a seasonal summary report of their pest levels. This allows them to anonymously compare their sample results among other beekeeping operations. The report expands the information on both a regional and national level while still maintaining the confidentiality of each beekeeper's identity.

The data collected is stored anonymously in the BIP database where it will join a vast and growing archive of data from other Tech Teams as well as disease and colony loss survey data. Beekeepers and researchers will be able to access aggregate summaries of these records to give context to disease loads in specific seasons and locations. Since May 2014, we have taken over 5,000 samples for *Varroa* and *Nosema* levels for participating PNW beekeepers. 2,858 samples were taken in 2014 and 2,531 currently for 2015.

Project Cooperators and Personnel: Dennis vanEnglesdorp, University of Maryland and Bee Informed Partnership

For More Details, Visit

- Poster location 6, Exhibit Hall A + B during the Almond Conference; or on the web (after January 2016) at Almonds.com/ResearchDatabase
- 2014 - 2015 Annual Reports CD (14-POLL5-Sagili); or on the web (after January 2016) at Almonds.com/ResearchDatabase
- Related project: 15-POLL7-Sheppard/Cobey