



The Bee Box
KAREN RENNICH

Before the Flood

More than a thousand beekeepers, research scientists, almond growers and industry leaders are gathered in Galveston, Texas for the North American Beekeeping conference. There may be a few interested locals here too, wondering who all these folks are in full bee regalia and driving large pickup trucks. It is an exciting but challenging time to be working in the field of honey bees. This conference enables even the most novice beekeeper to rub shoulders with large commercial operations and world renowned honey bee researchers. It is a time of joy to catch up with folks you haven't seen in a year but also a time of anxiety as beekeepers begin to move into almonds and hope that the weather cooperates and that the bees stay healthy.

We have focused on the efforts of the technical transfer teams in previous articles but as with many multi-faceted organizations, there is a crew behind the scenes helping make everything run on schedule and stay organized. I'd like to highlight the efforts of our Bee Informed Partnership central processing lab at the University of



Varroa shaker set up to process. Up to 12 samples are shaken for 30 minutes to dislodge any varroa mites. The mites are then counted and a mite load is calculated. Photo courtesy of the Bee Informed Partnership, Inc.

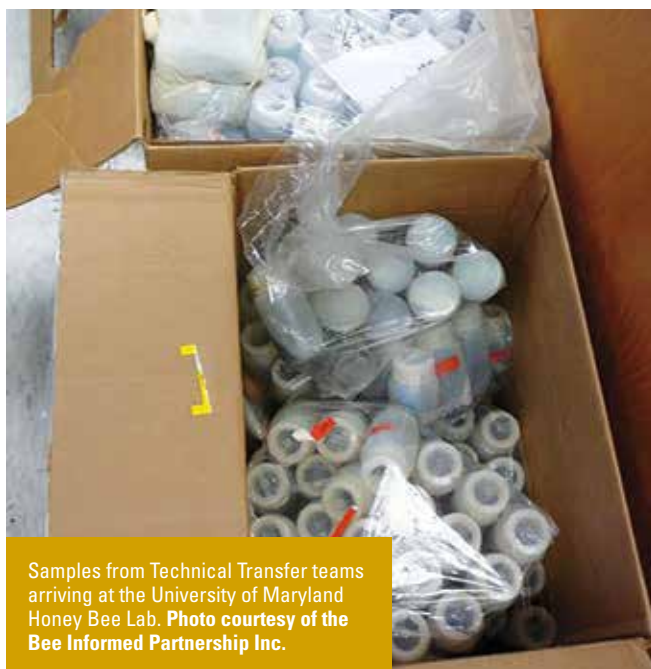
Maryland and how it serves more than 100 commercial beekeepers and their operations. We have a small window (less than a month) where our lab gets a breather, cleans, archives samples, resupplies and gets organized as we gear up for another busy year. Once our teams start sampling in almonds in only a few short weeks, the flood of samples and data begins anew.

High Throughput

Our lab processes well over 10,000 samples a year just for our five technical transfer teams alone and after doing this for over five years, it is well-oiled machine. Sample bottles arrive daily and after they are logged in, colony health assessment data is entered into our database and the samples are prepped for varroa mite load analysis and nosema spore analysis. After analysis, data are entered and checked several times before reports are generated and sent to the tech teams and beekeepers.

Required samples are archived with ethanol in glass scintillation vials and vacuum packed in our cold room for long term storage in the event we want to go back to those samples to evaluate them for any new threats we may see in the future.

Not only does our lab process all the samples, we generate all the sampling kits for the technical transfer team. With the use of a super-saturated salt solution instead of alcohol as the preservative liquid, we are able to recycle the sample bottles many times. We clean and dry them thoroughly and



Samples from Technical Transfer teams arriving at the University of Maryland Honey Bee Lab. Photo courtesy of the Bee Informed Partnership Inc.



Archived samples awaiting vacuum packing for long term storage at the University of Maryland. Photo courtesy of the Bee Informed Partnership Inc.

Colony bee tag. These are the size of a credit card and the information is printed right on the tag. It is then stapled to the lowest brood box of the sampled colony. Photo courtesy of the Bee Informed Partnership Inc.



then relabel. We also print all the colony tags that are used to identify the colonies that we sample and follow longitudinally.

We can process more than 100 samples per day and have reduced the turnaround time, from when we receive the samples to when the reports are sent, out to four days. This rapid, near real-time reporting is invaluable to the beekeeper who is waiting to make a decision, based on these data, to treat his colonies for mites or nosema.

To do all this takes a team that is well-trained and committed to doing the critical analysis that is required. Although a research lab, ours is also very much like a commercial lab with streamlined procedures and protocols and an adherence to accuracy and consistency. The

key to making this all work is a level of dedication by our staff. Despite taking our job very seriously, we also make it as enjoyable as possible. Music and laughter are not incompatible to hard work.

PROPANE.

THE POWER TO FARM CALIFORNIA.

Not just anyone can farm in California. From the unique regulations to the unusual conditions, it takes a special kind of producer to succeed here. A special fuel helps too. Clean, American propane gives you power when and where you need it, helps meet your emissions goals, and saves time and money. Propane puts the power back in your hands.

Visit PowerToFarm.com and see how California producers are taking advantage of propane's benefits in their operation.

 PROPANE EDUCATION & RESEARCH COUNCIL

