

THE MARIN BEEK NEWS

Volume 4, Issue 5

May 2012

What You Missed

Our last meeting featured a talk by Katie Lee. Katie is a member of the Bee Team, a tech transfer team that is sponsored by the Bee Informed Project and the University of California Cooperative Extension, Butte County. Katie's talk was titled "What's Inside Your Hive?"

The Bee Team is tasked with collecting data from a group of seventeen queen breeders in Northern California. These bee breeders produce more than 50% of the queens sold in the United States. Helping them be informed of the condition of their stock will lead to producing disease-resistant queens and make a big impact on the health of bees in the United States. The Bee Team assist the breeders by monitoring colonies over time, aid with stock selection for traits that will improve bee health, and conduct small scale experiments.

The Bee Informed Project has created a national database through the on ground testing and data collection of the Bee team, national surveys and Hive Tracks online record keeping software. The goal is to provide information to beekeepers to aid them with hive management.

Objective 1 - Record Keeping

Keeping good notes of your hive inspections is critical. A free web-based record keeping system is available on line at Hivetracks.com.

1. Give each colony a name to help you in your record keeping.
2. List the colony configuration, types of boxes (deeps, mediums, shallows), number of supers.
3. Count the number of frames fully covered with bees. Do this as soon as you open the colony using as little smoke as possible.
4. List the queen status – (QS) queen seen, (QR) queen right means there is a queen but you didn't see her, (QNS) looks queen right but no eggs and often no larvae, (DL) drone layer,

see What You Missed on page 2

What's the Buzz

Our next meeting will be on Thursday, May 3, 2012 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA, starting at 7:30pm.

Serge Labesque, local beekeeper from Sonoma County with many years of beekeeping experience. He has been keeping bees without chemical treatment for over ten years.

Serge will speak about spring beekeeping.

Upcoming Meetings:

June 7, 2012

Dan Stralka, Marin beekeeper

Dan will be discussing survivor stock bees.

June 30 to July 4, 2012

The Marin County Fair

Watch the Beek News and the Buzz for more information about how you can participate.

August 11, 2012

There is no regular meeting of the Marin County Beekeepers in August. Instead, please plan to join us on August 11th at the American Legion Log Cabin for the annual potluck dinner. The event will start at 5pm .

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- (QL) queenless, (LW) laying worker.
5. Rate the brood pattern from 1 – 5, 1 = poor and 5 = excellent. Look for missing cells, consistency of brood age, amount of brood (is it appropriate for the time of year?).
 6. Rate the colony's temperament from 1 – 3, 1 = nice, 2 = average, and 3 = aggressive. Tap the frames and wave your hands over them and see how the bees react.
 7. Rate the weight of the colony from 1 -5, 1 = light and 5 = heavy.
 8. If color is important to you, you can rate the color from 1 – 5, 1 – Cardoven, 2 = Italian, 3 = mix, 4 = Carniolan, and 5 = Russian. You should rate the color of the offspring, not the queen.

Diseases or Pests

Conduct a visual inspection of your hive for various diseases and pest. Learn how to determine what the signs of different brood diseases are by looking online, talking to other beekeepers and going to lectures and workshops.

In addition tests have been developed to determine the presence of various bee diseases and pests.

1. Varroa - Varroa is still the number one concern since varroa mites tend to vector various bee viruses and weaken the bees' immune systems. The impact of varroa destructor on bees is reduced body weight, reduced longevity, suppressed immune system, virus transmission (primarily deformed wing virus and parasitic mite syndrome), and colony death.

There are several different methods for determining the varroa load on a colony. The simplest is to use a sticky board under a screened bottom board and count the number of mites that drop through in a 24 hour period.

More accurate tests are the alcohol wash and the powdered sugar roll. In both tests a sample of 300 bees, about ½ cup are collected from the brood chamber and dumped into a jar. Make sure the frame you collect the bees from does not contain the queen.

Alcohol Test: Add alcohol to the jar, cover and shake vigorously. Strain the bees out through a coarse mesh strainer (#8 hardware cloth) and count the number of mites in the alcohol. Discard the dead bees.

Powdered Sugar Roll: This method uses a

clean dry mason jar with a piece of #8 hardware cloth cut to fit inside the ring that screws on to the top of the jar. After dumping the bees in the jar, place the ring on top of the jar. Add a few tablespoons of powdered sugar to the jar through the screen. Shake the jar to coat all the bees. Wait for 60 seconds. Turn the jar upside down and shake the powdered sugar vigorously into a white dish or tub. Add a little water to dissolve the powdered sugar and count the number of mites. Return the sugar coated bees to the hive.

To determine the percentage of infestation you multiply the number of mites you counted by 2 (to account for mites that are enclosed in the brood) and then divide by 300 (the number of bees you sampled). Studies have determined that > 12% infestation is a tipping point usually for hive die off.

2. *Nosema ceranae* – To test for *Nosema ceranae* a sample of 100 bees is collected from a brood frame and mashed up in a plastic bag. Water is added and then a sample is placed on a slide and observed under a microscope. The Marin Beekeepers have the equipment to conduct this test or you can send samples to Eric Mussen at UC Davis, which he will process for free.

Objective 2 – Stock selection for traits that will improve bee health.

The basic idea is to choose colonies with the best traits and the lowest levels of disease as breeders. Through keeping of good records and disease and pest testing you determine which colonies have the lowest level of disease. Another important part of the equation is a test of hygienic behavior. This is a test that determines the hive's ability to detect larvae that may be infested with mites or with disease and removal of these infected larvae before the mites or disease have a chance to spread through the colony. The test is performed by freeze killing an area on a frame of brood, returning the frame to the colony, reexamining the frame in 24 hours to determine the percentage of dead pupae that has been removed. The higher the percentage of pupae removed the more hygienic the bees are. There are two methods to freeze kill the brood. The first uses about 10 oz. of liquid nitrogen, which is poured into a section of pvc pipe that has been prepared and fitted into the side of a brood frame. The second method requires that a section of brood comb, 2" by 2½", be cut from the frame and placed in a freezer to kill the larvae. The section of comb is then placed back in the frame and then observed 24 hours later. A poster describing the hygienic test can be found at www.BeeLab.umn.edu.

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Katie closed by pointing out that blanket treatments, and over treating without sampling will make the problems worse. The best solution is through bee breeding. She recommended that, even if you aren't breeding, it helps to sample and keep notes of your colonies over time. She also encouraged all beekeepers to participate in the annual bee survey at www.Beeinformed.org.

Newbees 101 Class

On May 28th member Dave Peterson held his annual Newbees 101 class. Dave does not receive any compensation for teaching this class but requires club members who attend to donate \$40 to the Marin Beekeepers.

Dave reports that "We had a great Newbees 101 class over the weekend. All were great students and eager to learn. It was the most successful class I have after the eight classes I have done over the past 5 years.

We spent the first two and a half hours touching on a whole range of topics and attempting to impart enough knowledge to get started keeping bees. Everyone in the group had either just received their bees or were getting bees within a short time.

After a picnic lunch on the back deck where the Q&A continued, we went out to my 10 hive plus 10 nuc apiary for some real hands-on experience. In the course of the next two hours, every student had a chance to handle frames of bees, see and learned to identify the three castes of bees, pollen, nectar, capped honey, capped brood – worker and drone, larva, and everyone was even able to find and see some eggs. We then broke into pairs, with each pair going through a hive to find what we had been seeing on their own.

But best of all... a young couple from Fairfax called shortly after leaving the house to report they had just seen a swarm flying across Lagunitas Rd. right at the foot of the hill. They watched it settle on to a very small Scotch Broom branch that promptly bent to the ground. They said they would love to collect the swarm if possible. So I grabbed a five frame cardboard nuc box, added one frame of old drawn brood comb -- bees like the smell of old comb and it acts as an attractant -- and headed down the hill to find them by the side of the

road all suited up and ready for their first swarm capture.

By this time the swarm was half on the ground and half on the arching branch. We then laid the catch hive on its side with only the old comb frame inside and lying at the bottom, near the ground. Amazingly, the bees just started marching into the box and onto the old comb. When the comb was mostly covered with the advancing bees, we set the box upright with the entrance facing the oncoming bees.

As the swarm continued marching in, I held the dropping branch just above the cluster of bees weighting it to the ground and cut the branch above my hand leaving the cluster still clinging to the branch in my hand. The remaining branch immediately flipped back vertical making it possible to slowly move the cluster adhering to the branch up and over the catch hive. With one quick shake these bees fell into the box. We replaced the other four frames into the box while the remaining bees continued their advance into their new home.

What an exciting day. They saw eggs, larva and a queen for the first time during our workshop and then captured their first swarm all in less than a few hours. But I think I was the most excited to set 10 more beekeepers on a lifetime of enjoying our hardworking honeybees."

Hygienic Testing

In May we will be testing colonies in Marin for Hygienic Behavior using the liquid nitrogen test as part of our ongoing effort to create a population of honey bees that can survive here in Marin without chemical treatment.

For questions or to sign up to participate please contact Jerry Draper by email: hbttest@marinbeekeepers.org.

Fair News

The 2012 Marin County Fair is fast approaching. This is a fun annual July 4th event in which we can all participate on two levels.

First -- staffing the bee booth inside the exhibit hall during the Fair. This is our club's opportunity to do outreach and get the word out about our little "trusts" and hopefully dispel some misinformation. We get to talk about bees, show off the observation hive, look for the queen and enjoy the various reactions. Even as a "newbie" you have more knowledge than most of the public. The club also receives a donation from the Fair for our participation.

We staff the bee booth with 2 people during each 3- to 4-hour time slot. In exchange, each staffer receives a pass to get into the Fair and each time slot will have one car pass to the exhibitors' parking lot in back of the exhibit hall. The rest of the day you can enjoy the other parts of the Fair. Check out the website, <http://www.marinfair.org>, for entertainment (all included with entry), special events and attractions, especially the fireworks display each night at 9:30 p.m.

The sign-up schedule will be circulated during the next two meetings. Please sign up and join in the fun!

Second -- a little good-hearted competition with other beekeepers on all types of hive products: honey, beeswax, and candles. Cash prizes are associated with the first 5 places. There are two big prizes, the Best of Show and the Barney Salvisberg Award. All the exhibits are on prominent display at the bee booth during the fair (ribbons included) for your friends and neighbors to see, and we can showcase the many different hive products produced locally in Marin.

The important dates are:

May 17th

Entry form deadline for exhibits. Fair participants from last year you should have received an entry package. If not, or if you are entering for the first time, there will be entry forms and category descriptions for the Honey Department at the next meeting. It is also available on the Fair website, <http://www.marinfair.org>, under Competitive Exhibits. Please don't be shy; enter as many categories as you wish even if you are not yet sure that you will have an entry prepared.

June 8th & 9th

Drop off exhibits in the Fair building at the back of the Fairgrounds:

Friday, June 8th: 3:00 to 7:00 p.m.

Saturday, June 9th: 10:00 a.m. to 5:00 p.m.

We can accept late entries, even if you haven't submitted an entry form, but please make every effort to send in your forms by May 17th.

June 10th

Judging – Clyde Serda, Alameda

June 30th to July 4th

MARIN COUNTY FAIR!

Celebration of the Bees

Saturday, June 16, 2012: 1:00 pm to 4:00 pm

Location: Hillside Gardens in Mill Valley

Cost: \$35; children are \$1 (2 per adult maximum)



Join us for an afternoon sponsored by Savory Thymes and SuperOrganism to celebrate the wonder of native and honey bees, both of which are suffering declines due to pressures in their ecosystems.

This day will bring exhibits and a honey tasting presented by the Marin County Beekeepers Association, native bee walks lead by Gordon Frankie of UC Berkeley, honey bee talk by Mea McNeil, Master Beekeeper, along with delicious foods, meads, and Celtic music. This is a kid-friendly event so please bring your children.

Tickets can be purchased online at: <http://www.superorg.org/> (click on Buy Tickets in Celebration of the Bees section). For more information contact Jerry Draper at 415 457-3431 or email at celebees@superorg.org