



Wake County Beekeepers Association September 2009

Next Meeting: ***DIFFERENT DAY THAN USUAL*****
Monday September 14th 2009 @ 7:30 pm**

Location: Wake County Commons Building, Cary Drive.

Our Guest Speakers will be Various Club members who have done well in State Fair Competition: We have Tim Huffman a relatively new competitor who did well speaking about entering in wax, cut comb and pictures categories. Danny Jaynes will speak about general Club and Individual competition entry and honey categories. He will also have a refractometer and polariscope to see how your stacks up. Also, Ricky Barbour will talk about how he prepares his award winning Mead. Ricky will also show Jack Tapps new solar wax melter!

Michelle Barry, Tim Huffman and Langley Rooney have signed up to bring refreshments. We need a couple of people to sign up to bring refreshments to the November 2009 and January 2010 meetings. If you have the time, it is not too much trouble to bring refreshments to a meeting: You can pick out your favorite things and submit your receipt to Vivian for reimbursement.

August Meeting Summary

Thank you to everyone for bringing a delicious dish to the August Meeting.

There will be a category B & X pesticide training September 2nd. This type of training is necessary if you wish to purchase and apply controlled substances to your honeybees. If interested call Angelo@ 919-250-1116.

Danny and Mary attended the recent Eastern Apicultural Society of North America Summer Meeting:

<http://www.easternapiculture.org/>

They report that it was a great meeting to attend. There were 57 presenters in 5 days and had beginning and advanced courses. The current President is Will Hicks, our Apiary inspector! Will is in the picture to the right- checking out one of my hives. The 2010 EAS meeting will be August 2nd -6th held at Appalachian State University in Boone, NC. Hopefully many of us can take advantage of having this in our home state and attend.

Sign up sheets for Bugfest (honey sales, talking bees and the fund raiser booth) circulated. A sign up sheet for the state fair committee also circulated, a possible theme is Beeville- with themed hives. Now is the time to prepare your honey- you need to filter and strain in a nylon cloth and let sit to get the air out by Oct. If you are entering, you can enter 3 jars under the WCBA Club and 3 in the individual categories.

As a reminder *2008 Chapter of the Year club Members* (us) get a congratulatory 5% discount on orders at Brushy Mountain. If people want to get some orders Danny can plan a coordinated trip to also save on shipping. Let him know. This year there has been a shortage in honey and the state needs some for State Fair Sales. Where the proceeds go has not yet been determined, it has been suggested to help offset convention costs. Last year proceeds were used for the State Zoo exhibit and for CCD research. Local honey sells quickly at the state fair since everyone wants local for allergies and healthy benefits. This year they will label according to county produced. Also, hopefully some of us can get sourwood honey at the state fair. There is a rumor that there is a dearth of sourwood in the mountains due to CCD. However, the poor crop has weather to blame. So far NC has not had any CCD labeled cases. There is a recent article about CCD showing that all collapsed colonies have Israeli Virus in common. This is not the only cause, because they have infected healthy colonies with the virus and have not had them collapse.



Thanks to Larry Hall for submitting this link for all the "backwards" bee keepers. It was sent to him by my son who raises bees in Eugene, Oregon. The guy in this video taught him how to easily extract honey without the use of a honey extractor. Very interesting!

Even though the WCBA owns extractors for honey extraction, this may be of benefit to some members:
<http://www.backwardbeekeepers.com>

For those of you who missed it: The video report of the Grand Opening of the Honey Bee Exhibit is now on NCSBA web site "Zoo Exhibit" page.
<http://www.ncbeekeepers.org/zoo.htm>

Be thinking about helping as a WCBA Club officer next year!!! I know there needs to be some changes made, one of the Directors terms will be ending. In addition, I will have to be replaced, also the Program Chair. I get the secretary at my office to help out with the photocopying, folding, stamping and mailing the newsletter, but It is tough to fit it in these responsibilities with all my other activities. Hopefully at the next meeting the Nominating committee will be announced and some of you will volunteer or be nominated!

What to do in the Bee Yard: September

SEPTEMBER AND THE BEES: The bees will still be working fall flowers but in most states, the amount of honey produced in September will be minimum. The days are still warm enough to allow the bee's time to gather more last minute nectar prior to the first major hard freeze or frost which will kill the flowers.

SEPTEMBER AND THE BEEKEEPER: This is the start of the beekeeper's year! What you do in September will determine how well your bees do next year, and how well they overwinter. Here's your work list for September:

- 1) **Consider requeening.** You don't have to, if your queen has done well. But it is advisable to requeen in September. A new queen means a much younger queen who has stronger pheromones and who will be more apt to lay eggs more efficiently in the Spring.
- 2) **Take off all your supers.** There is no need for them now, and you will want to tighten up the hive by removing excess supers.
- 3) **Weigh your hives.** Find something around the house that weighs around 70 pounds. Lift it up slightly with one hand. This will give you an idea what 70 pounds feels like. Now, go to your hives and with one hand, slightly lift the back. Only lift it an inch or two so that you can sense how heavy it feels. It needs to feel around 70 pounds. If not, you will want to start feeding the hive 2:1 sugar water.

Because robbing is a problem this time of the year, do not use these entrance feeders during the fall. Top feeders, or frame feeders can be used, or a "remote" feeder central to all the hives to access.

Also, close up your hive as soon as you finish your work. Propolis is the glue that holds all the pieces of the hive together. Every time you open your hive, you break the propolis seal it needs to reseal on a warm day before winter. If you do this late in the year, when warm days are over the propolis will never seal again, and your hives can be blown a part in the winter by bad winds.

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ogroups.com
Back copies of newsletters and the bylaws are available on this yahoo group.

Location of Club Extractors:

The club owns extractors that are available for members to borrow.
Ricky Barbour: Zebulon 269-0108
Whit Joyner: New Hill 387-0164
Raleigh Myers: Raleigh 787-0058
James Knox: Raleigh 847-5098.

Genomic Study Yields Plausible Cause Of Colony Collapse Disorder

ScienceDaily (Aug. 25, 2009) — Researchers report this week that they have found a surprising but reliable marker of colony collapse disorder, a baffling malady that in 2007-2008 killed off more than a third of commercial honey bees in the U.S. Their study, in the *Proceedings of the National Academy of Sciences*, is the first to identify a single, objective molecular marker of the disorder, and to propose a data-driven hypothesis to explain the mysterious disappearance of American honey bees. The team included researchers from the University of Illinois and the U.S. Department of Agriculture.

U. of I. researchers spearheaded the honey bee genome project, which was completed in October 2006, less than a month before the first reports of colony collapse disorder (CCD) began to circulate. The new study made use of the genome and a genome-based tool, the microarray, to look for differences in gene expression in the guts of healthy honey bees and in those from hives afflicted by CCD. Such microarray analyses normally identify only active genes – those that have been transcribed into messenger RNA in the first stage of building proteins. But Reed Johnson, a University of Illinois doctoral student in entomology and first author on the study, noticed that the microarrays were turning up large quantities of fragmented ribosomal RNA (rRNA) in the bees affected by CCD. Ribosomes are the factories in which proteins are made, but Johnson observed that this rRNA contained adenosine-rich sequences not seen in normal ribosomes. Such "polyadenylation" is believed to be a sign of ribosome degradation.

"Microarrays for other organisms also contain these mysterious pieces of ribosomal RNA, for reasons that are not yet altogether clear," said entomology and neuroscience professor Gene Robinson, a co-principal investigator on the study with entomology professor and department head May Berenbaum. But comparisons of healthy bees and bees from hives afflicted with CCD showed that the fragments were present at a much higher frequency in the CCD bees, he said. "They are overrepresented in the CCD bees, significantly overrepresented," Berenbaum said. "The one consistent indicator of CCD across samples collected at multiple times and in multiple places was the overabundance of ribosomal fragments."

When the team looked at the pathogens of healthy bees and bees from hives affected by CCD, they saw that the CCD bees suffered "more than their share" of infections with viruses that attack the ribosome, Berenbaum said. These so-called picorna-like viruses "hijack the ribosome," she said, taking over the cellular machinery to manufacture only viral proteins. The list of picorna-like viruses that afflict honey bees is long and includes Israeli acute paralysis virus, which was once suspected of being the primary cause of CCD.

Numerous suspects have been identified in the hunt for a cause of CCD, from nutritional deficiencies to exposure to genetically modified plants or pesticides. Researchers in Spain recently pointed to a parasitic fungus, *Nosema ceranae*, which afflicts many CCD bees in Spain. The loss of ribosomal function would explain many of the phenomena associated with CCD, Berenbaum said. "If your ribosome is compromised, then you can't respond to pesticides, you can't respond to fungal infections or bacteria or inadequate nutrition because the ribosome is central to the survival of any organism. You need proteins to survive," she said.

The varroa mite, which is believed to have killed off a significant number of honey bees after it was accidentally introduced to the U.S. in 1986, is a carrier of picorna-like viruses, and is likely a significant contributor to the high viral pathogen load that afflicts U.S. bees. The mite may act as a tipping factor leading to ribosome breakdown, the researchers said. All of these influences, along with the practice of carting bees around the country for pollination services, are significant stressors on the bees, a heavy burden that would be amplified by a loss of ribosomal function, Robinson said.

This study was supported by the USDA. Berenbaum is also an affiliate of the Institute for Genomic Biology at Illinois. Robinson directs the Neuroscience Program at Illinois and is a faculty member of IGB.

Adapted from materials provided by University of Illinois at Urbana-Champaign. <http://www.sciencedaily.com/releases/2009/08/090824151256.htm>

WASHINGTON — Researchers have a new clue to the collapse of honey bee colonies across the country — damage to the bees' internal "factories" that produce proteins. Theories about the cause of bee colony collapse have included viruses, mites, pesticides and fungi.

The new study of sick bees disclosed fragments of ribosomal RNA in their gut, an indication of damage to the ribosomes, which make proteins necessary for life, according to a study in Tuesday's issue of *Proceedings of the National Academy of Sciences*. RNA, which is made from DNA, is central to protein production. The sick bees suffered an unusually high number of infections with viruses that attack the ribosome, the researchers from the University of Illinois at Urbana-Champaign and the U.S. Department of Agriculture reported.

"If your ribosome is compromised, then you can't respond to pesticides, you can't respond to fungal infections or bacteria or inadequate nutrition because the ribosome is central to the survival of any organism. You need proteins to survive," May R. Berenbaum, head of the department of entomology at Illinois, said in a statement. The researchers said the varroa mite, who was accidentally introduced to the U.S. in 1986, is a carrier of picorna-like viruses that damage the ribosomes. The mite may act as a tipping factor leading to ribosome breakdown, the researchers said.

The study was funded by the Department of Agriculture.

On the Net: *Proceedings of the National Academy of Sciences*: <http://www.pnas.org> (AP story Submitted by member Temple Porter)