



The Diablo Bee



Newsletter of the Mount Diablo Beekeepers Association

October 2007

2007 BOARD

www.diablobees.org

President

Stan Thomas
(925) 228-3209

honeymanstan1@netzero.net

First Vice President

Tom Lewis
(925) 348-4470

Past President

Stan Thomas

VP-Community Education

Judy Casale
(510) 881-4939

jmcasale@comcast.net

VP-Member Education

Richard Coleman
925 685-6849

rich6849@yahoo.com

Treasurer

Jeff Peacock
925-284-9389

hiveman@hotmail.com

Secretary

Lois Kail

Membership:

Gary Eubanks
(925) 875-1871

beedad94568@sbcglobal.net

Newsletter

Ersten Imaoka
925-687-7350

ersten3@yahoo.com

Kieran Mone

(925) 408-0498

Kieran@usmones.com



Next meeting:

7:30 pm – 08/09/07

Heather Farm Garden

Center

1540 Marchbanks

Walnut Creek

HIGHLIGHTS OF THIS ISSUE

Thank You! 1

MDBA Committee 2008..... 2

Virus May Be Cause Of
Disappearing Bees..... 2

Eulogy To George Imirie..... 3

The Tel Rehov Excavations -
2007 3

Newbee Nuggets 5

Announcements..... 6

Recipe of the Month 6

2007 MDBA Calendar of Events

Oct 11 General Meeting,
6:30pm, Heather Farm.
Barbecue, election of
board, awards, and
grand raffle.

Nov 8 Crossover Board
Meeting, 7:00pm

October Meeting

*Important
DATE!*

Our next meeting is the annual BBQ on October 11th at 6:30PM at Heather Farm. The Club will furnish tri-tip, chicken, ribs, sausage, soda, tea and coffee. Attending members are requested to bring a dish to share in accordance with the first letter of your last name as follows:

Salads	A to G
Veggies side dish	H to R
Desserts	S to Z

You may also bring your own adult beverage.

What's the Buzz?



THANK YOU!



Much thanks to Debbe Holeman for the excellent talk on making mead.

Mount Diablo Beekeepers Association Committee 2008

This is the slate of officers presented by nominating committee (Gary Lawrence and Gary Eubanks) at the September meeting:

President - Rick Kautch

First Vice President - Tom Lewis

Secretary - Lois Kale

Treasurer - Jeff Peacock

VP Community Education - Judy Casale

VP Member Education - Richard Coleman

VP Membership - Kim Coleman

VP Newsletter - Ersten Imaoka and Jonathan Winter

Past President - Stan Thomas

Virus May Be Cause of Disappearing Bees

A virus from Australia may be the culprit in the mysterious deaths of tens of millions of honeybees in the past year, according to a study published Thursday in the journal Science.

Colony Collapse Disorder affected 23 percent of U.S. beekeepers last year. Affected beekeepers lost an average 45 percent of their bees to the phenomenon -- the bees simply disappeared, leaving empty or nearly empty hives.

The disorder threatens many crops that rely on bees for pollination, and could have a \$75 billion impact, according to the U.S. Department of Agriculture.

Scientists and beekeepers have been puzzled by the disappearances, suggesting causes as disparate as parasites, pesticides, environmental stressors and cell phone towers. Many saw the new study as a breakthrough.

"This is a very significant finding," University of Delaware entomologist Dewey Caron, who was not involved in the study, told Technology Review magazine.

Still, Caron and others cautioned that the new finding do not rule out other possible causes, because bees weakened by parasites or environmental stressors could be more susceptible to the virus, called Israeli Acute Paralysis Virus.

Scientists identified IAPV as a culprit using new gene-sequencing methods. The researchers mapped DNA taken from both healthy and infected bee colonies around the country, as well as colonies in Australia and jelly produced by bees in China. After they subtracted the DNA that came from the bees themselves -- which was possible because scientists recently finished mapping the bee genome -- they were left with DNA from the bacteria, fungi and viruses that infected the bees.

They found that of the 30 colonies affected by Colony Collapse Disorder, all but one showed IAPV, while the 21 healthy colonies did not.

"The authors themselves recognize that it's not a slam dunk, it's correlative," entomologist May Berenbaum of the University of Illinois told the Associated Press. "But it's certainly more than a smoking gun -- more like a smoking arsenal. It's very compelling."

The researchers' next step will be to infect previously healthy colonies, as well as colonies with mites and other stressors, with IAPV, to find out what happens.

"At least we have a lead we can now begin to follow," study co-author Ian Lipkin, and entomologist at Columbia University, told the AP. "We can use it as a marker and we can use it to investigate whether it does in fact cause the disease."

IAPV had previously been detected in bee colonies in Australia and Israel, however, it hasn't caused colony collapse disorder in those countries. That bolsters the idea that the virus may work in concert with other causes, the researchers say.

The study also suggests that the virus may have entered the United States from Australia -- all of the diseased hives were either imported from Australia or had contact with Australian bees. And the first signs of Colony Collapse Disorder appeared soon after beekeepers started importing Australian bees in 2004.

The researchers suggested that it's possible that the virus, harmless in Australia, might have mutated to a more dangerous form after arriving in the United States.

"We know from other viruses like West Nile that very small genetic changes can turn a benign virus into virulent ones," biologist Edward Holmes, who was involved in the study, told Technology Review.

The researchers say it's also possible that the virus affected U.S. bees already stressed by mites or other factors.

The Australian government did not respond to requests for a comment on the study, according to Bloomberg News, but a bee industry group there rejected the findings.

"We unequivocally reject claims that Australia caused the introduction of Colony Collapse Disorder in the U.S.," Stephen Ware, of the Australian Honey Bee Industry Council, told Bloomberg News.

EULOGY TO GEORGE IMIRIE



PASSING OF A MASTER (EULOGY TO GEORGE IMIRIE)

When I was six or seven years old, I hardly remember now, I used to bicycle through the winding dirt road deep in the country to his house, a blood-rusted tin roof with leaky rickety front.



A widower, he was then a seventy-year old man. No kids of his own and hence, not a single grand-child. Yet everyone in town knew the beekeeper, a grandfather to all them kids.

A snot-green kid, I would take Mama's cornbread or pumpkin pie to him on Thanksgivings and Christmas, or in summer I'd take steamed okra picked from our little Victory garden.

For months, I anxiously awaited these trips, for the clouds of bees captured me with fear and curiosity, let alone his fist-size ice-cold blackberries he kept inside his cool earthen cellar.

He would gently hand me a queen cell, and in late autumn I'd take fat drones to school for show-and-tell. An instant celebrity, I'd loudmouth my expertise on berries and bees.

A gaunt man, he would pull frames with bare hands and no veil. In fact, I don't remember seeing him use a smoker. Instead, rarely, he'd spray water "to calm his Italian gals down."

He would tell me the secret of sting medicine: grab some dirt, roll it in your spit, and rub it where it hurts, a miracle cure that worked faster than any snake oil I ever known

since.

A quiet man, he also taught me other secrets of beekeeping: give them girls enough room for brood and store, and never interfere with their romp and roam. Tie up your hands!

"You are not a beekeeper," he'd insist, "You are a bee-maid, a monk dedicated to assist them to be what God made them to be, for they've been taking care of themselves for eons."

Now a beekeeper, I went back to his old shack—long gone. Hidden in the weeds, I saw his sunken shed, a collapsed lung. Yet in the prairie winds, I could hear clouds of his bees, roar.

--- Anonymous

George Imirie, Master Bee Keeper of Rockville, MD, formerly of Bethesda, MD, passed away on Thursday, September 6, 2007, age 84. He published scores of helpful essays for beekeepers over the years. You can view them at www.tnbeekeepers.org/learning.htm.

George Imirie invented the controversial accessory that bears his name. George attributes many of his successes producing honey to this useful, simple gadget called the Imirie Shim. It is an entrance that can be added anywhere in the hive, anytime. Use the shim between your extracting supers to reduce congestion during honeyflows. Do not use in between comb supers. Put one under your inner cover for winter ventilation. Stop up the slot and use one to give yourself space for requeening on top of the frames, or space to put on menthol packs. Experiment with this gadget for your own applications. For more instructions and uses of the shim, visit www.mainebee.com/

The Tel Rehov Excavations -2007



Hebrew University excavations reveal first Biblical period beehives in "**Land of Milk and Honey.**"

Jerusalem, Sept. 2, 2007 – Archaeological proof of the Biblical description of Israel really as "the land of milk and honey" (or at least the latter) has been uncovered by researchers from the Hebrew University of Jerusalem Institute of Archaeology.

[Amihai Mazar](#), Eleazar L. Sukenik Professor of Archaeology at the Hebrew University, revealed that the first apiary (beehive colony) dating from the Biblical period has been found in excavations he directed this

summer at Tel Rehov in Israel's Bet She'an Valley. This is the earliest apiary to be revealed to date in an archaeological excavation anywhere in the Ancient Near East, said Prof. Mazar. It dates from the 10th to early 9th centuries B.C.E.



General view of the apiary (three lines of hives).

Tel Rehov is believed to have been one of the most important cities of Israel during the Israelite monarchy. The beehives there were found in the center of a built-up area there that has been excavated since 1997 by [Dr. Nava Panitz-Cohen](#) of the Hebrew University. Three rows of beehives were found in the apiary, containing more than 30 hives. It is estimated, however, based on excavations to date, that in all the total area would have contained some 100 beehives.



View of the eastern line of hives, showing several tiers of hives covered by destruction layer and sealed by a 9th century building seen in the section.

Each row contained at least three tiers of hives, each of which is a cylinder composed of unbaked clay and dry straw, around 80 centimeters long and 40 centimeters in diameter. One end of the cylinder was closed and had a small hole in it, which allowed for the entry and exit of the bees. The opposite end was covered with a clay lid that could be removed when the beekeeper extracted the honeycombs. Experienced beekeepers and scholars who visited the site estimated that as much as half a ton of honey could be culled each year from these hives.

Prof. Mazar emphasizes the uniqueness of this latest find by pointing out that actual beehives have never been discovered at any site in the Ancient Near East. While fired ceramic vessels that served as beehives are known in the Hellenistic and Roman Periods, none were found *in situ* and beekeeping on an industrial level as the apiary at Tel Rehov is hitherto unknown in the archaeological record.

Pictorial depictions of apiaries are known from Pharaonic Egypt, showing extraction of honey from stacked cylinders which are very similar to those found at Tel Rehov. Cylindrical clay beehives placed in horizontal rows, similar to those found at Tel Rehov, are well-known in

numerous contemporary traditional cultures in Arab villages in Israel, as well as throughout the Mediterranean. The various products of beehives are put to diverse use: the honey is, of course, a delicacy, but is also known for its medicinal and cultic value. Beeswax was also utilized in the metal and leather industries, as well as for writing material when coated on wooden tablets.



A clay door of one of the hives

Study of the beehives is being conducted with the participation of various researchers. Dr. Guy Bloch of the Silberman Institute of Life Sciences of the Hebrew University is studying the biological aspects of the finds; he already discovered parts of bees' bodies in the remains of honeycomb extracted from inside the hives. Dr. Dvori Namdar of the Weizmann Institute of Science succeeded in identifying beeswax molecules from the walls of the beehives, and Prof. Mina Evron from Haifa University is analyzing the pollen remains in the hives.

Dating of the beehives was done by measuring the decaying of the 14C isotope in organic materials, using grains of wheat found next to the beehives. This grain was dated at the laboratory of Groningen University in Holland to the period between the mid-10th century B.C.E. until the early 9th century B.C.E. This is the time period attributed to the reign of King Solomon and the first kings of the northern Kingdom of Israel following the division of the monarchy. The city of Rehov is indeed mentioned in an Egyptian inscription dating to the time of the Pharaoh Shoshenq I (Biblical Shishak, whom the Bible notes as the contemporary of King Solomon and who invaded Israel following that monarch's death.

A particularly fascinating find is an inscription on a ceramic storage jar found near the beehives that reads "To nmsh". This name was also found inscribed on another storage jar from a slightly later occupation level at Tel Rehov, dated to the time of the Omride Dynasty in the 9th century BCE. Moreover, this same name was found on a contemporary jar from nearby Tel Amal, situated in the Gan HaShelosh National Park (Sachne). The name "Nimshi" is known in the Bible as the name of the father and in several verses the grandfather of Jehu, the founder of the dynasty that usurped power from the Omrides (II Kings: 9-12). It is possible that the discovery of three inscriptions bearing this name in the same region and dating to the same period indicates that Jehu's family originated from the Beth Shean Valley and possibly even

from the large city located at Tel Rehov. The large apiary discovered at the site might have belonged to this illustrious local clan.

The term “honey” appears 55 times in the Bible, 16 of which as part of the image of Israel as “the land of milk and honey”. It is commonly believed that the term refers to honey produced from fruits such as dates and figs. Bees’ honey, on the other hand, is mentioned explicitly only twice, both related to wild bees. The first instance is how Samson culled bees’ honey from inside the corpse of the lion in the Soreq Valley (Judges 14: 8-9). The second case is the story of Jonathan, King Saul’s son, who dipped his hand into a honeycomb during the battle of Mikhmash (Samuel I 14:27).

While the Bible tells us nothing about beekeeping in Israel at that time, the discovery of the apiary at Tel Rehov indicates that beekeeping and the extraction of bees’ honey and honeycomb was a highly developed industry as early as the First Temple period. Thus, it is possible that the term “honey” in the Bible indeed pertains to bees’ honey.

Cultic objects were also found in the apiary, including a four-horned altar adorned with figures of naked fertility goddesses, as well as an elaborately painted chalice. This could be evidence of deviant cultic practices by the ancient Israelites related to the production of honey and beeswax.

The excavations at Tel Rehov were supported by John Camp from Minneapolis-St. Paul, Minnesota in the U.S. with the participation of archaeological students from the Hebrew University of Jerusalem and numerous volunteers.

Newbee Nuggets.....

Extracting Tips

When using an uncapping tool (also called a capping scratcher), remove the tops of the capped cells by running the tool in the direction towards the top of the frame – not downwards or sideways. This will reduce damage to the cell walls because the cells are sloped towards the top of the frame. Less damage to the cell walls equates to less work by the bees to repair the cells in preparation of filling them with nectar.

When using a tangential extractor, always point the frames in the same direction, and be sure to spin them in the direction that takes advantage of the

natural slope of the cells (see above) to allow for proper extraction. Since tangential extractors can only extract honey from one side of a frame at a time, the first spin should be at a reduced speed to remove only approximately half of the honey on that side of the frame. Attempting to remove all of the honey from one side of the frame on the first spin could result in damage to the comb because the weight of the honey-filled opposite side of the frame would create an unbalance in the frame, forcing the comb towards the wall of the extractor, thus bowing the comb and possibly cracking of the comb, especially on unreinforced comb. After the initial spin, rotate each frame 180 degrees and spin in the opposite direction at full speed until the honey on that side of the frame is extracted. Finally, flip the frames again and rotate at full speed in the opposite direction of the second spin to remove the remaining honey.

What to do with the cappings? If you are not going to use the wax to make candles, creams, etc., put the cappings and salvaged honey into shallow plates (I use recycled supermarket plastic containers – the ones that held hamburgers and cut meat) and place the plates on the inner cover, being sure not to cover the slotted hole. Then, place an empty super on top of the inner cover and cover it with the outer cover. The bees will recycle these leftovers within a few days, leaving only a small pile of sawdust-looking wax remnants. I have left such a set up for a week without any burr comb being created.

For the ultimate in recycling, leave your extracting equipment near the hives, set on moats to prevent ants from getting to the honey-coated items. The bees will clean them up in a day or two. Just be sure the leftover honey is not thick enough to drown the bees, or get them so coated with honey that they cannot fly back to the hive. Your bees will benefit from recycling their honey and wax, and your cleanup task will be that much easier. Everybody wins. One last thought – I wouldn’t do this if the air temperature will get hot enough to melt wax. Leaving the equipment outside like this in the heat of summer will make your cleanup extremely messy, since you’ll need to remove the baked-on wax. Even during milder weather, it is a good idea to set your honey-coated equipment in the shade.

Announcements

☞ Please send in your favorite honey recipes or bee articles via email to ersten3@yahoo.com or Kieran@usmones.com

☞ Membership Dues

Dues should be sent to:
Jeff Peacock, Treasurer
Mount Diablo Beekeepers Association
3341 Walnut Lane
Lafayette, CA 94549

Recipe of the Month



Firming Face Mask

Ingredients

- 1 Tablespoon honey
- 1 egg white
- 1 teaspoon glycerin (available at drug and beauty stores)
- 1/4 cup flour

Directions

Whisk together all ingredients and enough flour to form a paste (approximately 1/4 cup). Smooth over face and throat. Leave on 10 minutes. Rinse off with warm water.

The Diablo Bee
21 Newell Ct
Walnut Creek, CA 94595

