

# THE MARIN BEEK NEWS

Volume 2, Issue 4

April 2010

## What You Missed

At our last meeting Dr. Eric Mussen gave an overview of current bee research projects. Research is continuing on colony collapse disorder (CCD). Not much more is known about CCD, but it doesn't appear that there is any one cause. While researchers still have difficulty explaining it, Eric stated that it is real and has been resurgent in 2009.

Eric spoke about research being conducted on pollen and how bees use it. Bees need a variety of pollen to meet their nutritional needs. Pollen collected by bees has been found to have fungal spores. When bees pack the pollen in their pollen baskets they use saliva to bind it to the legs. The saliva carries bacteria. Research is finding that the fungi and bacteria combine with the pollen to pickle it and help preserve it. They also work to predigest the pollen and release more of the vitamin and mineral content. Through this research they are also discovering that the use of fungicides or antibacterial chemicals will affect the storage of pollen. Eric mentioned that pro-biotics are being developed for bees to boost the beneficial bacteria in their guts.

Research continues on vitellogenin. Vitellogenin is a powerful antioxidant. Nurse bees exude vitellogenin and feed it to larvae, drones and the queen. It is also

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## What's the Buzz

Our next meeting will be on Thursday, April 1, 2010 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA, starting at 7:30pm.

### Guest Speaker

Our guest speaker will be Serge Labesque, beekeeper extraordinaire.

Serge's topic: Division is also multiplication

As a passionate beekeeper, Serge maintains bee colonies in four separate locations in Sonoma County. Over the past ten years, he has experimented with different methods of keeping bees. He has also designed and fabricated his own beekeeping equipment. His goal is to maintain bee colonies by relying on the natural strength of local strains of bees, by completely eliminating the need for antibiotics or chemical compounds for pest and disease control, and through techniques that allow beekeepers to be self-sufficient practitioners.

Serge is an active member of the Sonoma County Beekeepers' Association. He teaches beekeeping classes at Santa Rosa Junior College, where he shares his experience and opinions on beekeeping. He is the author of numerous articles that have been published in beekeeping magazines of national distribution, and was the recipient of the Western Apicultural Society 2006 Thurber Award for Inventiveness.

### Upcoming Meetings:

May 6, 2010  
John Gipson,  
Honey Packer Entrepreneur

John started Gipson's Golden, Inc. back in 1987 as a

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found in high concentrations in winter bees and is felt to be the reason that winter bees are able to live longer. When summer bees switch to foragers they give up their vitellogenin to the colony and load up with juvenile hormone. Once they give up their vitellogenin they age rapidly.

Another study involves epigenetics. Throughout life genes are being turned on and off in all organisms. Eric gave the example of the growth gene. If it were not turned off when we reached a certain age we would continue to grow indefinitely. The same principles apply to bees. Queen bees are created from the same egg as a worker by turning certain genes on. The genes are triggered primarily by the royal jelly-rich diet fed to the queen larva.

Eric is involved in an experiment to vaccinate bees against virus. The vaccine is being fed to the bees in sugar syrup. Different groups of bees are being fed at different intervals, with a control group getting no vaccine. The study is still underway and no conclusions have been reached yet.

Eric closed by explaining what a Cooperative Extension Apiculturist is. His job is to work with both the academic and the real world. In effect, he is a conduit for information between the two groups. For Eric, it is the best of both worlds.

## Ask Eric

Dr. Eric Mussen is the UC Cooperative Extension Apiculturist.

If you have a question, email it to [nuc@marincountybeekeepers.org](mailto:nuc@marincountybeekeepers.org). We'll select one for Eric to answer every month.

- Q.** Does dormant spraying have an effect on bees?
- A.** Not unless it is mixed with a toxic insecticide. It still won't be a problem if the chemicals stay off the bloom.
- Q.** Although it is listed as an herbicide, does Roundup affect bees?
- A.** As far as we know, only by eliminating potential sources of food for later in the season.

hobby and a way to spend some extra time bonding with his kids. In 1998 the hobby took off and Gipson's Golden, Inc. is now a leading producer of raw, natural, organic and kosher certified honey. John now spends his time attending bee conferences, learning about his bees, and selling the best honey ever produced!

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June 3, 2010  
Dr. Michelle Flenniken,  
Haagen-Dazs postdoctoral fellow

Häagen-Dazs postdoctoral fellow Dr. Michelle Flenniken is conducting studies on the details of honey bee cellular immune responses to infection by RNA viruses in the Department of Microbiology and Immunology at the Mission Bay campus of UC San Francisco.

The eventual goal is to find a way to interfere with virus replication in infected host cells. Working in conjunction with Dr. Joseph Derisi's team, in an adjacent laboratory, she also is involved in the process of developing microarray "chips" that will be able to demonstrate the presence of any known honey bee pathogen(s) in a submitted bee sample.

Michelle obtains her virus-infected bees from Bay Area hobby beekeepers and she delivers extremely well-received research presentations to audiences with all levels of apicultural expertise.

## Other Items of Interest

### Marin County Bee Census Survey Coming Soon!

During the week of April 5th, the link to the 2010 survey will be sent out to the email list. This survey will compile information on our hives from April 1 - March 31, 2010. This information will help us to track bee trends over time in our area. Please help us by participating.