

# THE MARIN BEEK NEWS

Volume 2, Issue 3

March 2010

## What You Missed

At our February meeting our special guest speaker was Dr Marla Spivak, University of Minnesota bee researcher. She spoke on three topics related to keeping bees healthy.

The first topic was about the function of propolis in the hive. Propolis is a resin that is secreted by certain plants for the protection of leaf buds. Bees collect propolis and use it as a caulk or sealant, plugging unwanted holes and gaps in the hive. Propolis is also used to entomb foreign objects in the hive that they bees are unable to move. They also use propolis to coat the inside of their hive. Propolis has been found to have antimicrobial properties. Propolis can kill off background microbes, which aids in colony health. Dr. Spivak said that studies show that bees living in propolized hives are exposed to less diseases than bees living in non-propolized hives. Studies also show that bee larvae fed with propolis have lower viral loads.

Dr Spivak spoke of current studies of the possible benefits of propolis to humans. A group of biologists is working to break propolis into its component parts to determine if propolis could be used to fight human diseases such as HIV. She cautioned that these efforts are in their early stages and that much more research would be required to determine the potential

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## What's the Buzz

Our next meeting will be on Thursday, March 4, 2010 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA, starting at 7:30pm.

### Guest Speaker

Our guest speaker will be Dr. Eric C. Mussen, Cooperative Extension Apiculturist at the U.C Davis Department of Entomology

Eric has earned a B.S. in entomology from the University of Massachusetts, Amherst, a M.S. and a Ph.D in entomology from the University of Minnesota, St. Paul.

His research interest includes managing honey bees and wild bees for maximum field production, while minimizing pesticide damage to pollinator .

Eric is the junior past president of the Western Apicultural Society. He also serves as editor of the U.C. Apiaries Newsletter and is a monthly contributor to the Marin Beek News, providing answers in our "Ask Eric" feature.

### Upcoming Meetings:

April 1, 2010  
Serge Labesque  
Beekeeper extraordinaire

Originally from France, Serge was a meteorologist before moving to California. 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

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benefits of propolis to humans.

The second topic was about the role of the beekeeper in promoting bee health. Beekeepers should be familiar with the symptoms of bee diseases and monitor the level of mites in the hive. It should be a priority to promote bee health and to reduce our chemical dependency to combat mites and bee diseases. One method of achieving this is to propagate bee stock that has natural defenses against mites and disease. Chemical treatments should only be used as a last resort.

Dr Spivak spoke about the Minnesota Hygienic line of bees that she was instrumental in developing. These bees were bred to produce honey, to over-winter well, to build up quickly in the spring, be gentle, be hygienic and be resistant to disease and mite infestation.

The Minnesota Hygienic bee has an ability to detect infected larvae by the odor that they give off and to remove the larvae before they are able to spread the disease. The test for hygienic behavior that was developed requires freezing a given area of brood to kill the capped larvae. The percentage of larvae that are removed within a 24 hour period gives an indication of hygienic behavior. A removal rate of 95% or better would be considered hygienic and could be selected for breeding. She pointed out that it is important to have drones from hygienic stock also or the trait may not necessarily be expressed.

Dr Spivak's third topic was varroa mites. Varroa mites are a vector to many of the diseases that affect the honey bee. They feed off of the developing larvae, which weaken them and makes them more susceptible to infection. Her research group has developed a new method for counting mites. 300 bees (approximately 4 ounces) are collected from the brood area. The bees are then put into a special container and are dusted with powdered sugar and left to sit for a few minutes. The mites are then shaken through the screen into a white container, where they can be counted. The bees can be returned to the hive, shaken up, but still living. The number of mites on the sample of three hundred bees is then divided by three to give the number of mites per hundred bees. This number is then multiplied by two to give the approximate number of mites in a hive, including the sealed brood. The purpose of the test is to give the beekeeper a standardized method to monitor mites. You can purchase the special container developed for this test from Walter T Kelly. Go to their website and look for the Varroa Sampling Gizmo.

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.

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May 6, 2010  
John Gipson,  
Honey Packer Entrepreneur

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

## 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.** When a hive collapses from varroa infestation or honey bee parasitic mite syndrome (hbpm) what is the mechanism? It seems like the bees are there, but dwindling; and then they seem to disappear all at once.

**A.** Your observations are accurate. The dwindling and hbpm do not come on all at once. The bees get sick. Their ability to produce brood food drops off and the larvae are not well fed. This leads to the larvae becoming susceptible to infections. The sick bees don't clean out the sick brood (lack of hygienic behavior), and all sorts of odd infections take over.

The adult bees aren't being replaced by new workers the way they should be as they die of old age or of disease. So, the population begins to really dwindle.

When the colony reaches the point where there no longer is any good brood rearing going on and the worker bee number is declining rapidly, the remaining bees just abandon ship, taking a load of mites with them on their bodies. Those bees bring their passengers into the next colony the bees try to join.

**Q.** Do they decide to find somewhere else to live?

**A.** Individual bees try. Often they are rebuffed by guard bees, but the mites get in, anyway. They don't go off like a swarm and try to set up shop, again.

**Q.** Does the queen die before they abscond or does she fly out with them?

**A.** I think she tends to disappear before the last of the workers fly off. The bees are not feeding and tending her well. I remember people talking about small handfuls of workers left after the big fly off, but I don't remember them talking about presence of a queen.

## Other Items of Interest

The February 2010 issue of the Western Apicultural Society Journal has now been posted to their website. Go to <http://groups.ucanr.org/WAS/>. Click on "WAS Journal" and then on the Feb 2010 issue.

On March 8th at 7 p.m. the Sonoma County Beekeepers' Association is pleased to announce a special speaker from France. All are welcome, no charge to visitors!

Jean Paul Picco is a retired general from the French Air Force. Since his retirement in 2000, he has been President of the beekeepers' school in Rocamadour, in the southwest of France. He lives in Fajoles, in the Lot, with his wife Marie Helene and their 10 beehives.

Jean Paul will present how the French beekeepers' school operates in France as well as discuss the current difficulties bees are encountering in France, in particular with the Asian hornets. We are all looking forward to this excellent opportunity to learn and see what the French are doing.

The meeting will be held at the 4-H Foundation Center, 6445 Commerce Boulevard in Rohnert Park. Leave Highway 101 at Rohnert Park Expressway; go east to the first light which is Commerce and go South on Commerce (a right turn). Turn right on Hunter Drive and drive all the way to the end past the shops. The 4-H building is located behind the Grocery Outlet.

### 4th ANNUAL BEE SYMPOSIUM

March 7, 9am-5pm, Subud Center, 234 Hutchins Avenue, Sebastopol

Featured Presenters include Dr. Robbin Thorp, Dr. Eric Mussen, Randy Oliver, Serge Labesque, Kathy Kellison

This one-day symposium will be packed with speakers and information offering updates and new perspectives on honeybees and native pollinators, beekeeping practices, innovative approaches and ecological strategies for beekeepers, and actions that can be taken by beekeepers, growers and other interested supporters who wish to help our bees.

Cost of registrations is \$30. To learn more go to [www.pfsp.org](http://www.pfsp.org). All proceeds from the symposium to benefit Partners for Sustainable Pollination.