

The Nevada County Beekeepers Association

Local Buzz



September 2010

President's Message

This president has been very LAX. Bev and I have been gone most of the summer. Our last trip was to the big city of Ely Nevada--don't go there. Anyway I hope you are doing well with your bees. I haven't heard how the fair was. Were there a lot of people coming through the booth and did they get their questions answered? I understand we will have a movie at our next meeting. Yes, the meeting is on Labor Day, the 6th of Sept 2010. Hope to see you there.

Larry Merrit, your president

September 6th Meeting

Our program for September will be a showing of the recently released independent 90 minute film 'Vanishing of the Bees'.

From the project website: "Vanishing of the Bees, a full-length documentary narrated by Oscar-nominated actress Ellen Page, follows two commercial beekeepers David Hackenberg and Dave Mendes as they strive to keep their bees healthy and fulfill pollination contracts across the U.S. The film also features organic beekeepers Gunther Hauk, Dee Lusby, food activist and author Michael Pollan and leading scientists on the case such as Dennis van Engelsdorp. Covering the global scope of this story in America, Europe, Australia and Asia, this documentary examines the alarming disappearance of honeybees and the greater meaning it holds about the relationship between mankind and Mother Earth."

The film may or may not have an agenda that you agree with, however it promises to be a thought-provoking event. For more information see:

<http://www.kickstarter.com/projects/1066171846/bee-the-change-national-campaign-vanishing-of-the>

Bee Bits

By Randy Oliver

This has been a great season—I was able to shake nectar from the combs clear into July! However, our typical summer drought has finally caught up with us, and colonies are shutting down broodrearing in many yards due to lack of pollen.

I suggest that you check some combs from the center of the broodnest to ensure that the bees are actively rearing brood, and that there is some pollen in the band around the brood. If not, supplemental feeding of patties would be in order. If colonies are not heavy and full of bees, you can get them to kick in by feeding ½ gal of 1:1 sugar syrup per week.

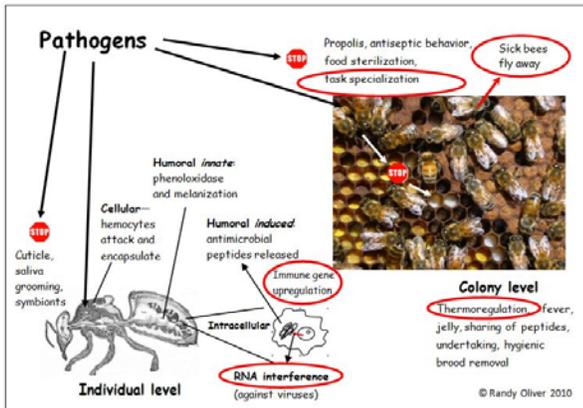
This is the critical time of year to monitor your mite levels. I wouldn't let them get above 5 mites per 100 bees from the broodnest, max. We have had great success with Apiguard thymol gel, 25 g applied on a card between the brood boxes, repeated in 10 days if necessary.

The Fair was a great success, and I got lots of positive comments on the clear entry tubes. The top of roof entrances are working great! Congrats to Valerie, Rob, and the rest of you for your honey entries.

If you have supers of good-tasting local honey, synthetic miticide free, but don't feel like

going through the hassle of extracting, contact me (277 4450) to see if we would be interested in extracting for you for a share, as we cannot fill our market for raw local honey.

I've been researching and writing about the bee immune system, and find it fascinating. I'm including a snippet below.



A simplified schematic diagram of the honey bee immune system. The various components work together against the wide variety of pathogens that bees encounter. The “stop” signs indicate barriers to pathogen introduction. The functions circled in red are involved in my model of colony collapse. Bee cross section from Snodgrass 1910.

The first order of individual immune response is to recognize “self” from “foreign.” The bee immune system recognizes invaders by keying in on specific proteins present on each type of pathogen (i.e., the surface proteins of bacteria are different than those of say, fungi). Bees have “constitutive” or “innate” defenses that are always present and at the ready, such as roaming hemocyte cells and enzymes in the hemolymph. The hemocytes recognize invaders and signal the enzyme phenoloxidase to start a cascade of chemical response, generally ending in either the engulfing or encapsulating of the invader, killing it with a barrage of powerful chemicals (e.g., quinines, phenols, and reactive oxygen species). The hemocytes involved may then apoptose (kill themselves) and be coated with dark melanin polymers (you can see these dark areas in white dead pupae being removed by bees).

This innate defense system works *fast*—Haine (2008) found that the mealworm beetle can nearly

clear its system of an injection of 4 million bacteria in about 30 minutes! During this quick response (pay attention here, as we are getting to a potentially important aspect of colony collapse), the hemocytes release chemicals that penetrate the cell nuclei, and cause them to upregulate certain immune response genes, which then transcribe RNA messengers to exit the nucleus, and then move to the ribosomes to *translate the genetic instructions into antimicrobial peptides*. This is called the “induced” response, and takes at least 1-3 hours to get going (after 99.5% of the bacteria have already been killed), and 12-48 hours to reach peak levels. The induced response can last for weeks, *and it appears that these peptides can be passed to nestmates to confer them resistance prior to being infected* (something that solitary insects can't do).

Snack Sign-up

Thanks to the people who signed up to bring snacks to our meetings. We'd like to have four people per month, so please email Karla Hanson at queenbeez@att.net.

September: Mari Wolf

October: Sherry Skolfield, Charles Whittlesey

Fair Pictures

Submitted by Diane Benton



Serving tastes of honey



Fairgoers tasting honey (Future beekeepers!)



The new clear tube going to the outside. It was a huge hit. The regulars all noticed that it was new. But for some reason everyone thought there it led to a beehive in the attic, so we had to tell people it went to the outside and the bees were flying around the fairgrounds (riding the Zipper). Everyone asked how we got the bees to come home at night. Funny.

Events

September 11, 2010 10am -2pm UC Davis at the Harry H. Laidlaw Jr. Honey Bee Research Facility, Bee Biology Road, University of California, Davis. Grand Opening Celebration of

the Häagen-Dazs Honey Bee Haven. Garden tours, hands-on demonstrations, speakers and kid's activities. Free!!!

September 18, 2010 9am – 1pm Willow Springs , 29085 State Highway 49, North San Juan, CA.

Neal Sullivan will teach this workshop on natural beekeeping. Learn how to create your own apiary (bee yard) utilizing chemical free beekeeping practices. \$25 pre-registration, \$30 at the door.

Things you will learn include: How to start and maintain a beehive ... Natural comb building ... Harvesting your own local honey ... Create gardens for humans and bees utilizing permaculture principles. How to make (render) beeswax for candles and salves and more.

This class is open to anyone experienced or not. We will discuss various beekeeping topics as well as hands of participation. Plus take home a sample of local honey!

Neal Sullivan is an experienced local beekeeper who has worked and studied with Steiner college in Sacramento and other local experts. He has a passion for growing food and creating gardens and orchards.

To register, please contact Jeffrey Adams at (530) 292-3463.

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DVD Reviews for Sept

By Tynowyn Slattery, Librarian

Varroa Mites, Detection, Life Cycle & Control

Penn State College of Agricultural Sciences

19 min DVD

Any beekeeper who wants to get ahead of the Varroa death curve needs to know this basic information and here it is presented in as clear and concise a manner as one would expect from a college agricultural department.

The images of the mites are large and creepy with appropriately creepy music. (My apologies to all the "every thing has its place" people. I just find parasites creepy.) The demonstrations of ether rolls and other detection procedures are also well done, but the weakest part of the DVD is the section on mite control theory which has undergone a change of focus since the 1999 production date although it was acknowledged in the film that this area was evolving rapidly.

The music keeps all the technical information and matter of fact vocal delivery from being too dry, and the Irish flute piece played under the credits at the end is stunning. In my opinion, this is another "have to watch if you are going to understand beekeeping" item.

Bear Fence

Randy Oliver

36 min DVD

Here is a timely review for those in our area. Bears need to put on a lot of fat to provide for the coming winter and my local bear just passed through and broke every branch of my 20 year old Santa Rosa plum getting at the fruit, luckily my hives are behind a fence. If you don't know how to deal with electrifying a fence, this is for you.

The goal was to show how to set up an electric fence, which was clearly explained and demonstrated but there is always a lot of other valuable information to be had along the way with Randy, such as the best place to situate an apiary or even seeing how a truck lift is used.

Randy and his camera man Al Marshall and Al Dover, whose apiary had been beset by a bear, made this video (in the original) in real time, which reminded me of following Randy around his bee yard when I first took his class, and there are moments where a professional edit would have taken out some footage but which also might have run the risk of losing some of the good natured interactions and especially Randy's surprise demonstration of what would happen if one weren't careful in handling live electrical elements. I can't ever remember laughing during a bee keeping "how to"; it even made up for the lack of music.

The visuals and audio are surprisingly clear for a non-professional production.

I've not seen this subject covered anywhere in the beekeeping literature and we're lucky we have this DVD in the library. Losing hives to a bear can be very costly and it's sure to happen sooner or later if you live in bear country and don't take precautions.

