

Local Buzz



February 2007

President's Message

Dear Fellow Beekeepers,

As I sit here on my front porch and type this message, the sun is shining and it is a beautiful day. I just checked the bees and they are flying about, gathering pollen. It's hard to believe how cold it has been for the last couple of weeks. Our pool froze and the horses water trough needed to be broken up a few times a day. It seems as though it may be getting warmer this next week. Good for us.

I'd like to thank John Miller for speaking to us at the last meeting. He has an incredible speaking style that keeps you enthralled on the subject at hand. It's always a pleasure having him.

Anyone who plans on taking bees to almonds should be going through their hives finding out what they have to take to the orchards and lining up a place to take them. I was up in Chico last weekend and spoke to the owner of the property that we were hunting on and he told me that he was going to pay \$180+ a colony for his bees this year. That's right from the grower.

I am looking forward to seeing you all at the next meeting on Feb. 5th. Until then, happy beekeeping.

Your President, Shane Mathias

February Program

Randy Oliver will speak on the state of the art of worldwide scientific research on biotechnical methods and strategies of varroa mite control. These methods allow beekeepers to keep healthy colonies without the use of chemical miticides. Topics will include screened bottom boards, drone brood management and trapping, and the use of powdered sugar dusting.

2007 Membership Dues Due!

Janet will be collecting membership dues at the February meeting. Dues are \$12.50, or \$10.50 if you receive your newsletter electronically. You may also mail your dues to her at:

NCBA

C/o Janet Brisson

20693 Dog Bar Road Grass Valley, CA 95949

If you have any questions, please contact Janet at 913-2724 or rubes@countryrubes.com

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Snack Sign Up

Our February snack sign up sheet says we owe thanks to Detlef, Amber, and Tom Wade.



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ORDERS RECEIVE QUICK SERVICE

January Minutes

President Shane Mathias opened with Q&A discussion: Nevada County Ag Commissioner registers local hives. 1-9 colonies is a hobby--no charge. Ten or more requires \$10 registration as an agricultural crop, part of Nevada County crop statistics. Registration due starting January each year, includes advance notice of pesticide application in the vicinity. Program: John Miller, commercial beekeeper and his wife Jan, microbiologist, addressed several bee topics. He will place over 10,000 colonies in almonds this year. His colonies winter in North Dakota where most operators have 10,000 hives. They are stored in dark potato cellars at 41F, but must be fully treated for varroa, nosema and fowlbrood (Tylosin) and well fed with sugar syrup, to survive until spring. In North Dakota amitraz (Taktik) is legal--not in CA. In US, 30% of bee colonies die annually. A well fed double-super colony

weighs 120#. At the end of January 100,000 hives go to almonds. If blossoms are late, poor colonies will rob and/or starve. "Funny honey" (adulterated) is now worldwide. Can be detected by spectroscopy. In US there is no agreement on purity rules, nor government funding for setting standards or enforcement. Argentine production standards are superior. National Institutes of Health and National Science Foundation fund some research, but industry progress has historically failed since the two major bee organizations don't cooperate. UC Davis lacks industry funding support. The bee genome has been mapped, and may be the best opportunity for research projects. Competition for research funding from private and public sources is extreme--few are funded despite the dependence of agriculture on bee pollination. Jack Meeks, sec

News from ABF

By Janet Brisson

It was Awesome in Austin at the American Beekeeping Federation in Texas. I met Joe Graham, publisher of the American Bee Journal, and Nick Dadant whose name should say it all. Larry Connors, author, was selling new and vintage books across. He's visiting Northern California early March and I snagged Larry (or he snagged me) for our March 07 program. Although I wasn't able to attend the seminars, I was able to talk to a few of the speakers. One of the more exciting was a government scientist working on pheromones that attract mites away from the bees without confusing the bees. He looked at our bottom boards with the thought that the pheromones could be impregnated in the plastic sticky board. Another Gov. scientist told me about her work with nutrition and bees. She was very down on feeding corn syrup to bees and at another conference, stood up to producers and commercial sellers of these products as she pointed out how bees utilized these products compared to sugar products. Also, there is a big difference between cane sugar (good) and beet sugar (not as good). Randy Oliver contacted me on this trip; he's working on his Powdered Sugar article for ABJ and besides asking me about our techniques, asked me to find other beekeepers using powdered sugar as a way to keep their mite loads down. What fun, I asked everyone who came by about what they used for mites, and if they mentioned powdered sugar, I asked more detailed questions and emailed them to Randy, who in turned, had more questions. The largest operation using powdered sugar was 800 hives. There were two operations with 300 hives and several at the 100 count.

Lot's of hobbyist. The larger operations did a 3 part treatment every spring and fall. And most of them used essential oils that included Lemon Tree Oil and spearmint. We arrived in Texas to beautiful balmy 70 degree weather and left during a major rainstorm that turning icy. 3 very cold (20's) days of dodging storms, we finally crossed two state lines into Arizonian where the sky is blue and the temps are in the 40's. Anxious to get home. One thing about these seminars, you hear all sorts of things about bees and all you want to do, is get home and check your babies, I mean bees. See you all soon, Janet

Library Additions

Our beekeeping library is fantastic, and thanks to Janet and Randy, just increased by 11 books. Are you a library member? A one time \$5.00 fee allows you to check out books and videos. Here are our new additions:

Larry Connors: Increase Essentials
G. M Doolittle: A Year's Work in an Out-Apiary
Tammy Horn: Bees in America
Roger Hoopingarner: Langstroth Revisited
Holley Bishop: Robbing the Bees
Stephen Buchmann: Letters from the Hive
Hattie Ellis: Sweetness and Light
Mani Mall: Covered with Honey
Ron Miksha: Bad Beekeeping
Hibernation Diet
Hoopingarner/Connors: Apiculture for the 21st Century
Larry Connors, our March speaker, will be bringing his latest work, "Increase Essentials" which he will be selling. You will have a chance to preview it at February meeting.

Bee Bits

By Randy Oliver

We're busy as heck getting the bees ready for almonds. We're going for an 11-frame average, which requires lots of labor in feeding and manipulating colonies. Anyone wishing to tag along on an almond run should call me. We'll be going to almonds from about Feb 1 until March 10.

We've been really busy also with mechanics. Zion Guinn has been over welding up a boom loader onto his truck, and we'll be doing the same this week. Plus getting two trucks running, and a forklift running. Mechanics takes away from our bee work.

I've taken some excerpts of my most recent article that will come out next month in the American Bee Journal. The article will detail colony monitoring for varroa,

including sampling methods, their strengths and drawbacks, sampling timing, and mite threshold levels. It also contains 16 photos of sampling methods, three graphs, and one table.

Jar samples

Stickyboards have drawbacks at certain times of the year (Figure 1). In order to obtain reliable estimates when there is no broodrearing in the colony, natural mite drop sticky counts must be taken for unreasonably long times, or multiple samples should be taken. Sticky counts are also skewed during the September "turnover" as mites are forced to move from brood onto adult bees. During those times of year, another way of monitoring is to put a sample of adult bees into a jar, and dislodge the mites for counting. "Jar" samples are generally a more accurate method in the short term than natural mite drop, except when there is broodrearing in earnest. Jar samples have the added benefit of being very quick, and require little special equipment.

Jar samples give you an estimate of the percent mite infestation of the adult bees by phoretic mites (number of mites hitchhiking on a hundred bees). For example: if you obtain 3 mites from a 300-bee sample, you'd divide 3 by 300 to get the percent infestation—in this case 1%. The inherent weakness of jar samples is that you're only sampling a small subset of the bees, the count may vary quite a bit from sample to sample from the same colony, the count will depend upon the part of the hive that you take the bees from (nurse bees carry the most mites), you need to open the colony and brush or shake bees, and you may inadvertently kill the queen.

Powdered sugar shake

The above two methods have the drawback of killing the bees, and possibly the queen if you're not sharp eyed. Paula Macedo and Marion Ellis came up with a bee-friendly jar test (Macedo & Ellis 2001). Set up a jar as for alcohol wash, with a 1/8" screened lid. Shake in 300 bees from the broodnest, put on the lid, and sift 1 rounded tsp. of powdered sugar through the lid onto the bees. Roll the jar until the bees are all white, then let 'em sit for a minute. After one minute, invert the jar over a white surface (or better yet, a white pan of water so wind doesn't blow the mites away), and shake the sugar and mites out for a full minute (continue if mites keep falling). Macedo recovered about 80-90% of the mites; in my own tests, we recovered about 65-70%. The bees can be returned to the hive unhappy but unharmed.

To summarize sampling methods, the more mites obtained in the sample, the more reliable the count. Therefore:

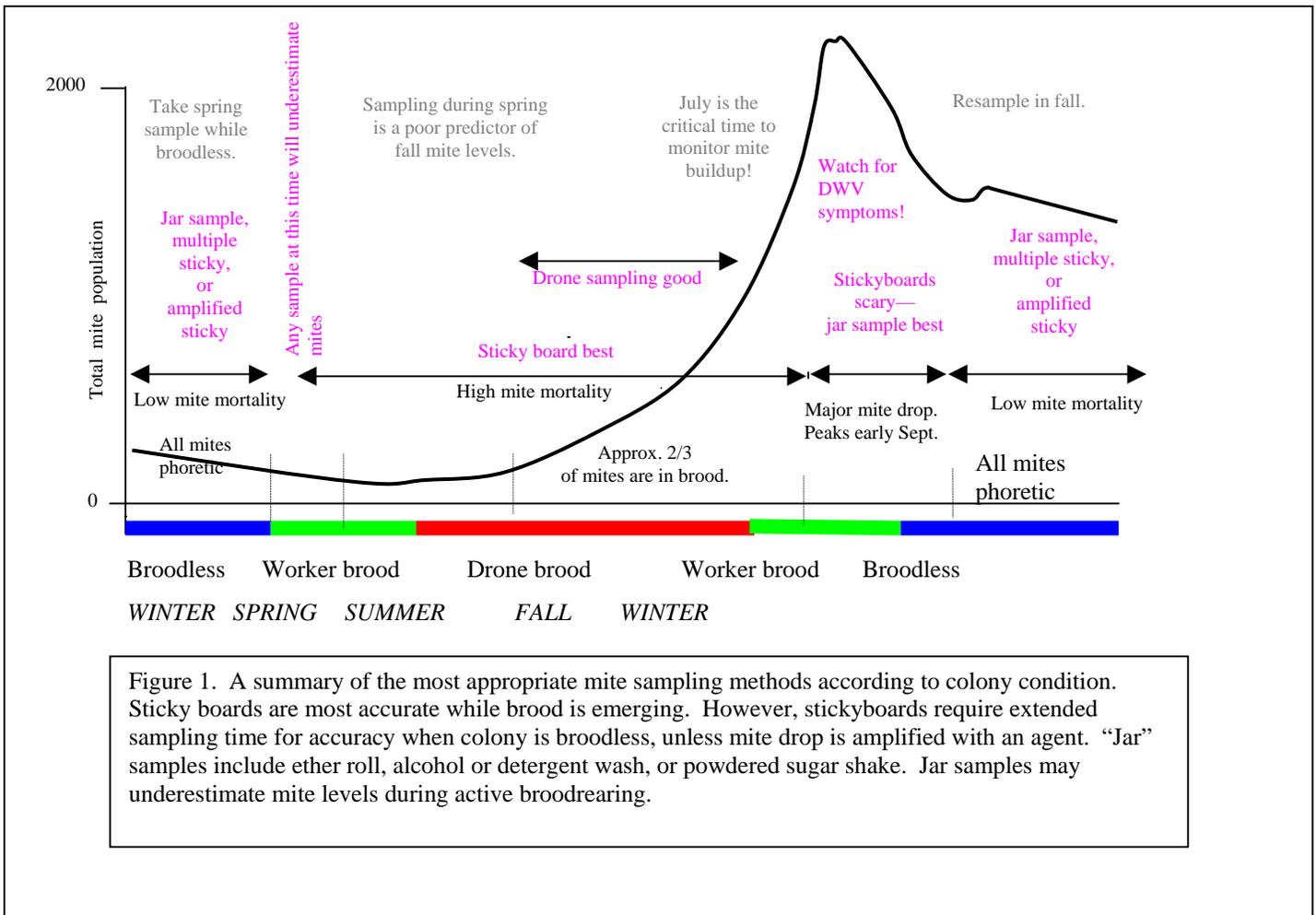
Use natural mite drop on stickies when there's brood emerging

Use jar samples or amplified stickies when colonies are broodless

Neither method is good during spring "turnover" when mites are first entering brood cells. Stickies can be especially misleading during the fall turnover, when mites are shifting out of brood-- jar samples are best at that time. Ideally, one would sample each colony. Larger beekeepers should take multiple samples from each yard--there may be large yard-to-yard differences in mite levels, for various reasons, but often due to mite immigration from the collapse of surrounding colonies.

Unchecked, the mite population will double roughly every month during broodrearing. Understand the concept of doubling. If the colony will barely notice; doubling from 400 to 800 in June will start to stress the bees. The July mite population doubles again from 800 to 1600, and now the bees are definitely stressed, honey production is hurt, and viruses start to spread.

What you're most concerned with, is any further doubling once the total mite population passes the 1000 mark (a daily sticky count of around 25, or 4-5 mites in a 300-bee jar sample). Once they pass this level, they appear to explode. If you reach this level in mid August, just before the mite population peaks, no problem. But if you reach it in early July, you'd better pull your honey supers and knock 'em back!



The Nevada County Beekeepers Association is dedicated to apiculture education and promotion of the art and science of beekeeping among beekeepers, agriculturists, and the general public. This is a "not for profit" organization.

Meetings are held the first Monday of each month at 7 PM at the Grass Valley Veteran's Memorial Building at 255 South Auburn Street in Grass Valley. All visitors are welcome. The newsletter is published monthly as a service to the membership. Articles, recipes, commentary, and news items are welcomed and encouraged. Submission by email is encouraged. Please submit to Leslie Gault at lesliegault@yahoo.com. The deadline for the March 2007 edition is February 20th. A limited amount of advertising space (business card size 3" by 2") is accepted and need not be bee-related. Rates are \$1 per issue or \$7 per year for NCBA members and \$16 per year for non-members. All revenue from advertising goes to the Association treasury and helps offset the cost of producing and distributing this newsletter. To receive the *Local Buzz* via email: please email your request to lesliegault@yahoo.com

Nevada County Beekeepers Association

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Nevada County Beekeepers Association



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February 2007

February Meeting

Randy Oliver will speak on the state of the art: worldwide scientific research on biotechnical methods and strategies of varroa mite control.