

Local Buzz



December 2008

President's Message

Hello all, and happy holidays! Once again we have completed a bee year, I hope your colonies are large, well fed, and have plenty of food stored. The December meeting is a potluck and pirate gift exchange—please let's not go over \$15.00 for the gifts. As for the potluck, I'll supply organic farm raised ham, and I need a volunteer to bring a small turkey (call Rob, see phone # on back page)? Everyone else please bring a side dish or dessert. We will also continue our place setting contest [no lit candles, fire hazard] first place can choose their number in the gift exchange! I look forward to seeing you all there. Your President, Rob Slay

December 1st Potluck and Party

The Nevada County Beekeepers Association will hold its annual Christmas potluck and pirate gift exchange on Monday December 1st, 2008 at the Veteran's Memorial Building (back door off parking lot) on 255 South Auburn Street in Grass Valley at 6 PM (note earlier time than usual), Bring a wrapped gift, \$15.00 or less, a dish to share, your own place setting, and eating plates and utensils. This is always lots of fun!

Bee Bits

By Randy Oliver

As I write this just before Thanksgiving, one would think that it was a September day! Winter teased us with a good soaking, then went away. The Sierra is devoid of snowpack. This could be a big problem for California agriculture next year, and especially almond orchards. We really saw the value of supplemental protein feeding this summer. Those colonies that were strong after the

honeyflow were able to maintain their strength if given pollen supplement patties regularly from August on.

We've experimented with Miteaway II formic pads in hot weather (over 85°F), and confirmed the label warning that they were not effective at that temperature. We've got more on now in cooler weather, and expect better results. The mite control product that has really impressed us the most is Apiguard thymol gel. It works great during our hot summer weather, if about 25g are placed in the middle of the brood nest.

Another Sugar Dusting Test

(Excerpts from an article to be published in the next American Bee Journal, and then posted to www.scientificbeekeeping.com)

On a warm August day last year, several volunteers from our local Association, including Mike Montgomery, Thom Staser, and Brion Dunbar helped me to collect data from over 30 colonies—one yard of doubles, and one of singles. In each yard I had previously indicated those that appeared to have significant mite levels. We began by removing sticky boards that had been placed under the colonies one to three days previously, counting all the mites, and adjusting the numbers to 24-hour counts. We then took approximately 300 bees from the broodnest of each sample with a vacuum, and preserved them in alcohol for later washing of mites in order to determine percent infestation.

Then the real fun started! We put dry boards under the screened bottom of each colony, then top-dusted each in turn (1 cup powdered sugar per box, over the top box only), and collected and counted the mite drop at 10 and 30 minutes, and at 1, 2, 3, 21, 24, and 33 hours (it took one guy's full attention simply to keep our times straight). Our goal was to plot the mite drop curve, and to confirm Dr. Fakhimzadeh's finding that the effect of dusting wore off after about 24 hours.

We counted a lot of mites that day! One interesting thing that we noticed was that the texture of the sugar that fell onto the dry boards (white corrugated plastic) changed over the course of hours. For the first hour, the

sugar looked just like the powder that comes out of the sack, and the mites were all mature, dark, active, and undamaged. After a few hours, the fallen sugar begins to look more like granular clumps. By 21 hours, the sugar falls in little rods, and the mites are frequently immature or well chewed. This is likely due to a shift from the drop of phoretic mites back to mites emerging from the brood, or perhaps it has something to do with the change in sugar consistency allowing the bees to catch some mites.

Sugar dusting continues to increase mite drop above the natural mite fall baseline level for about 24 hours (Fig. 4), by which time it has returned to normal. In this trial, the total dusted mite drop over 24 hours was about 5 times natural mite fall for doubles, and 6.3 times for singles.

Most of the action after top dusting takes place quickly—within an hour for single story colonies, and by three hours for doubles. Of great interest was the difference in variability of percent drop between doubles and singles—singles were consistent; doubles hugely variable. This observation may have to do with how the frames are aligned in doubles. Sugar can get trapped on the lower top bars when the bee spaces are not stacked vertically. This would at least delay the dusting of bees in the lower box.

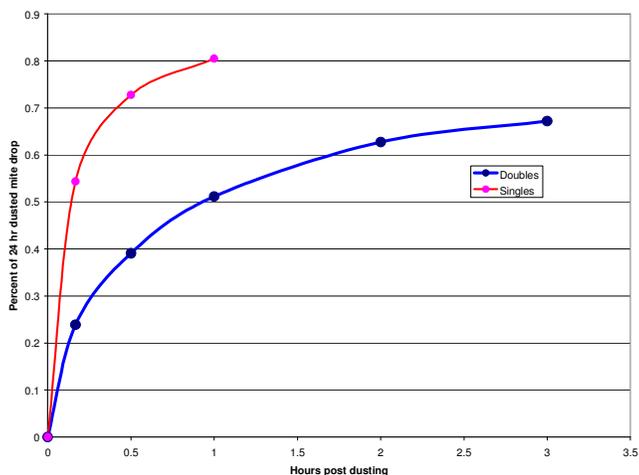


Figure 5. An enlarged view of the first three hours of the above graph. The first hour is shown for singles (n = 9), 3hrs for doubles (n = 17). Note that mites dropped much more quickly in singles, with 80% of the total drop occurring by the end of the first hour. In doubles, less than 70% of the total had dropped by 3 hours. And yes, these are actual mean data points—I’m as surprised as anyone that they made such smooth curves!

A test of the “gold standards”

There are two “gold standards” for determining mite infestation level—an alcohol wash of about 300 bees from the broodnest, and a 48-hour stickyboard count of natural mite fall, adjusted to 24 hours. Surprisingly, when we compared the two for our test colonies, there was virtually no correlation between the two (Fig. 7)!

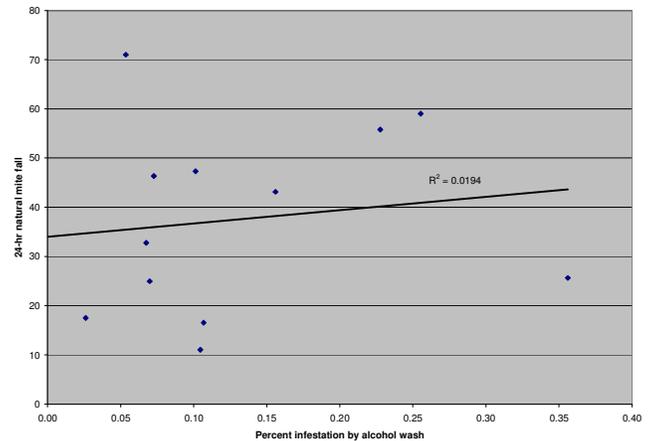


Figure 7. Correlation between two sampling methods to determine varroa infestation level—alcohol wash of 300 bees, and 24-hour natural mite fall onto a stickyboard. Note that there was virtually no correlation between the two methods in this test. This was a distressing surprise, since these two methods are considered to be “gold standards”!

However, we did find that there was a rather good correlation between the alcohol wash and the 24-hour dust drop (Fig. 8).

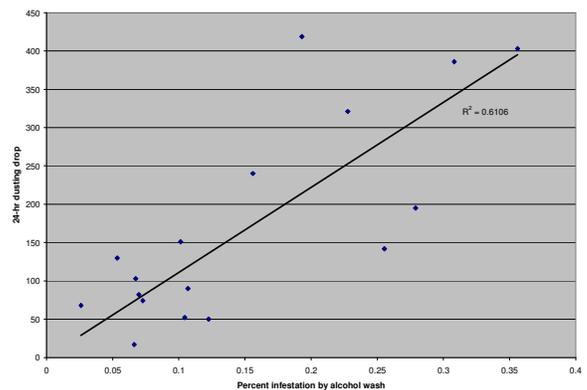


Figure 8. Plot of total 24-hr mite drop after top dusting vs. infestation level as determined by an alcohol wash of 300 bees from the broodnest. This graph includes data from both singles and doubles. These results indicate that sugar dusting can provide an accurate assessment of mite infestation level—perhaps more accurate than the alcohol wash.

Even the 10-minute dusted drop demonstrated a moderately robust correlation with the alcohol wash infestation level (Fig. 9). The question that I then ask is, Which is actually more accurate—the dust drop (which samples the entire colony) or the alcohol wash (which

samples only 300 bees)? I've personally become quite fond of the 10-minute dust drop. We'll look into this next month when I report on my next test of the method.

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November Minutes

President Rob Slay opened with Q&A: More CA beekeepers have Russian bees, and are hiving them in remote areas to keep pure. They look like and cross with Carniolans, but replace the queen oftener, and are used to cold climates, short seasons and high production. Italian bees are better pollinators, Russians better housekeepers.

ELECTION for 2009: Rob Shay was voted President; Karla Hanson V-P; Janet Brisson Treasurer; Jack Meeks

Secretary. Board members: Leslie Gault, Randy Oliver, Deborah Morowski, Larry Merritt. Steve Reynolds will mail newsletters; Tynowyn Slattery, librarian; Swarm Hotline and raffle Lynn Williams.

PROGRAM: Randy Oliver visited beekeepers worldwide and showed images of his travels. Australian innovations in transport and hiving developed because of sparse nectar and long distances.

December 1 meeting at 6:00 for socializing, potluck and Pirate Gift Exchange. Bring a gift for someone to steal, dish to share, utensils, and beverages.

August starting balance \$1907.17, no deposits, 94.41 Payments, Balance \$1812.76 September \$1812.76, 104.50 deposited, 1917.16 sub-total, \$156.05 payments Balance 1761.21 October 08 \$1761.21, 59 deposited, 1820.21 sub-total, 49.02 payments, balance \$1771.19 November 08, 1771.19, deposited 88.75, 1859.94 sub-total, 64.31 payments, ending balance 1795.63

Jack Meeks, sec

Cottage Cosmetics

A how-to guide for making fine olive oil soap and all natural personal care products using beeswax is available from local author and herbalist, Linnie McNaughton. The guide includes detailed instructions. To order send a check for \$15 to:

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For more information, go to secure website: greenblessings.com or call Linnie at: (530) 906-0831

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STRAWBERRY ALERT

By Janet Brisson

We just discovered an insidious pest in the soil on our farm. Symphylans are tiny, 1/4" or less arthropods, like centipedes, that reside in soils that are light and airy, high in organics and eats the roots of seedlings and young transplants, particularly Cole crops like broccoli, beets and spinach. They travel in earthworm burrows and travel more vertical than horizontal, so the infestations tend to be localized at the beginning.

Anyone who has broccoli and cabbages starts from us are fine, they were grown in the greenhouse and had not been outside yet. But the strawberries are another story, we dug those up in the garden and they could be

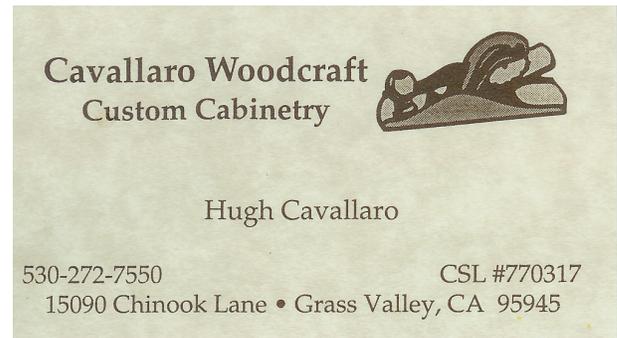
harboring these critters. Anyone who took strawberry plants at the October's beekeepers meeting needs to dig them up and look at the roots. If you see them, you should remove the soil around the roots. Luckily, they don't travel far if there's food. We dug up a bunch of our strawberry plants that we transplanted, and we found some in just a few plants. It was our Cole plants that we transplanted outside that have a huge number of these symphylans running around the roots.

It really kills when you do everything right as an organic farmer, no till, raised beds, unlimited amounts of compost and water, and all that turns into the perfect home for this horrific pest. For the unprepared gardener, you plow up fallow land and plant in your garden and it's in great shape for 4 or 5 years. Then suddenly, you can't grow certain plants; beets and spinach sprout and die, the broccoli turns purple, the stems turn to wire and the roots are stunted. You think you need more compost, more water, maybe the moon was in the wrong phase. We thought it had something to do with the water from the new well we had dug around that time.

Some of the organic solutions are to till, then compact your soil, planting cover crops of certain types of oats and beans and using trap crops like potatoes. It's also advocated in cases of severe infestations, is to have two vegetable plots, one is planted and the other is fallow, allowing to revert back to grass land and rotating every 3 years.

If you have any questions, please feel free to contact me and I sincerely apologize for any problems this has caused.

— Janet —



Honey Almond Brittle

2 cups sugar
1 cup honey
1 Tablespoon butter
1 cup water
1/8 teaspoon salt
2 cups slivered blanched almonds

In a heavy-bottomed saucepan, stir together sugar, honey, salt, and water. Stir until sugar has dissolved. Bring to a boil and continue to cook until mixture reaches 300 degrees F on a candy thermometer.

Remove from heat and add butter and almonds, stirring only enough to mix them in.

Pour mixture out onto a well buttered marble slab or cookies sheet with edges. Spread using a spatula or the back of a large spoon until the mixture is very thin.

When mixture is cold, break it up into irregular shaped pieces. Store in a cool dry place in air-tight container.



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 January 2009 edition is Dec 23rd. 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

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Nevada County Beekeepers Association



c/o Steve Reynolds
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 First Class Mail
 December 2008

December 1st Program

Our December 1st program will be the annual Christmas potluck and pirate gift exchange, 6 PM (note earlier time) at the Grass Valley Veteran's Hall. See inside for details.