

THE MARIN BEEK NEWS

Volume 9, Issue 1

January 2017

What You Missed

Our November meeting featured a presentation by Marion Ellis, PhD, University of Nebraska. Dr. Ellis is a professor emeritus of Entomology at the University of Nebraska, Lincoln, NE. His presentation was on how to safely and effectively use formic acid and oxalic acid in managing varroa mites.

Varroa Mites

- In order to effectively treat hives for varroa mites, it is important to understand their biology
 - Recommends the Brushy Mountain website as resource
<http://www.brushymountainbeefarm.com/Resources/VarroaMites.asp>
- Varroa are huge compared to the size of their host
- Varroa & bees have a unique parasite / host relationship – arthropod on arthropod
- Sometimes you can see mites on bees, but mostly see the impact of mites – i.e. shriveled wings
- Just looking for mites isn't an effective detection method – by the time you can see them, it's a lost cause
- Most varroa time is spent under the bee's body
- Varroa moves into the brood just as it is ready to be sealed & lays eggs within 6 hours
- Attracted to a chemical odor that is emitted by the brood
- Drone brood produces greater amounts of the pheromone resulting in higher attraction levels
- More female mites will mature than males

Colony Assessment

1. Dead Colonies
 - Examine cells by holding frame bottom towards you
 - White amorphous masses on sides of cell walls will be varroa feces
2. Live Colonies

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What's the Buzz?

Our next meeting will be on Thursday January 5, 2017 at the American Legion Log Cabin, 20 Veterans Place, San Anselmo, CA. starting at 7:30 pm. The meeting will feature a talk by Bernardo Nino, staff research associate, Department of Entomology, University of California, Davis, CA. Bernardo will be presenting data from a large scale study on mites, investigating the efficacy of novel bio-pesticides on mites and some of the management lessons learned from running 80 colonies all season. He will discuss ways people can reduce in-hive pesticide use through management practices.

Upcoming Meetings:

February 2, 2017

Les Eccles, Ontario Tech Transfer Program Lead.

March 2, 2017

Ross Conrad, beekeeper and owner of Dancing Bee Gardens, Middlebury, CT. He will speak about CCD and Organic Solutions. Workshops will be scheduled for Saturday. See Page 5 for more information on workshops.

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- Sugar Roll
 - Good diagnostic tool to determine to treat or not
 - Will get 90% of mites

When to Treat – Windows of Opportunity

- Spring - take action if mites detectable using sugar roll
- Sample again in mid-August – if detect 3 or more mites per 100, take honey off & treat

Oxalic Acid Treatment

- Recently approved for use in the US, but subject to state by state registration (CA not approved as of Dec 2016)
- Brushy Mountain is the approved distributor in the US
- Oxalic is a strong organic acid that is a defensive chemical
 - Insect repellent found naturally in some plants – rhubarb, kale, broccoli
- Minimal applicator & product safety risks
- Solutions need to be made precisely
- Applied by trickling an oxalic/sugar solution along frames (preferred) or evaporating using a vaporizer
- Solution created by dissolving 35g oxalic in 1 liter of lukewarm sugar syrup (1:1 – no stronger)
- 5-6ml trickled between occupied frames

Treatment Considerations

- Mix fresh solutions each time
- Don't treat weak or starving colonies
- Don't use thick syrup
- Will be ineffective if brood present
- Temperature over freezing, but below 55F
- Do not treat when honey supers in place

Safety Practices

- Don't breathe in dust or fumes
- Wear protective eyewear
- Have water available to wash hands after handling
- Wash clothes separately after treatment

For more information:

<http://blog.brushymountainbeefarm.com/2015/09/oxalic-acid-faqs.html>

Formic Acid Treatment (Mite Away Quick Strips

MAQS)

- Treatment ready to use by placing gel strips across the top of frames in the hive
- No evidence of mite resistance
- Can treat with honey supers on
- Important to pay close attention to weather patterns
 - 70-80F temperatures ideal
 - Cannot apply in higher temperatures

Thanks to Marina Wright for providing the "What

What's the Buzz continued from Page 1

April 6, 2017

Charlie Blevin, beekeeper, San Francisco, CA. He will discuss swarms and extractions.

May 4, 2017

Randy Oliver. Workshops will be scheduled for Saturday.

June 1, 2017

Gadgets and Gizmos

July

No meeting: Marin County Fair.

August

No meeting: Marin Beekeepers Annual Potluck.

From the Librarian's Desk

The latest addition to the club library is a charming volume from Tom Seeley entitled "Following the Wild Bees – The Craft and Science of Bee Hunting". Tom has described his work locating bee trees in the Arnot Forest for his research during past meetings. You will be inspired to take up this fascinating activity which combines a love of the outdoors, orienteering and nature observation.

All club members are welcome to borrow books & DVDs from the library. Please bring your borrowed items back on Thursday & be eligible for the lucky draw!

Hive Tips

By Bonnie Morse, [Bonnie Bee & Company](#)

- Cold doesn't kill bees - moisture does. Make sure your hive tilts forward slightly so moisture doesn't condense inside on your bottom board. Not sure the bees have enough ventilation? On a warm day, quickly check the inside of your top to see if it is wet or has mold. If so, consider giving them a little more ventilation by adding a shim, stick, or thin piece of wood between the top and inner cover or add a wick – like a thin strip of burlap to wick moisture off the inner cover and out of the hive.
- Cold may not kill bees, but it can make smaller clusters work harder to keep warm and go through their food stores more quickly. There's no reason to let a colony starve. On a day that is 60 degrees or warmer, you can go in and check out their food stores. If you prefer not to go into the hive(s) at this time of year, you can also check the weight of the hive by trying to lift it from behind. If it is difficult to lift, the colony likely has ample stores. If it is easy to lift, you may want to feed.
- Warm weather and early blooms mean that you MAY be able to start adding space again now. When in doubt, leave the colony as it is. But if you've got a colony that is busting out – and you're located near blooming eucalyptus – you might just be able to add a box and take advantage of the nectar / pollen currently available. Colony seems to be booming, but you don't want to take off the inner cover? Why not add a box ABOVE the inner cover (if your inner cover has a hole in the center)? Bees can access new box from hole, but solid portions of inner cover will prevent too much heat from escaping above cluster. If you're really not sure whether adding space is appropriate, you could even add a shim (or similar) to reduce inner cover hole to single bee space slit.
- Got a very small colony? Leave them be. Not much you can do at this time of year and it will be very difficult for them to get temperature around brood (which is likely there) back up to 90+ degrees if you open them up. Best chance for a small colony right now is for you to let them alone until late winter / early spring....

- It's time to start getting ready for next season! Clean up equipment from dead outs and pulled honey supers from last season. Read a book. Sign up for a class. Order and assemble new equipment. The 2017 season will be upon us quickly!

Beekeeping Classes

Upcoming classes with Bonnie Morse, Bonnie Bee & Company:

Beginner Series: 9 hours, \$99. Classroom sessions will include basic bee information, seasonal cycles of a colony, equipment options, where to place your hive, how to get bees and tips on working with your equipment. When the weather warms up, there will be a field session so you can observe and practice working with your tools and bees.

Class room sessions: Wednesdays, Jan. 25, Feb. 1, Feb 8, 6:30pm - 8:30pm (3 classes, course code 26357, drop in fee = \$30/class)
[San Rafael Community Center](#), 618 B St., San Rafael
Field Day: Sat., Mar. 11th, 9:30am – 12:30pm (drop in fee = \$40)

Intermediate Series: 9 hours, \$99. You've got your colony through winter (or not) - now what? Class sessions will include how to clean up your equipment, expanding hive size for spring, swarm prevention- and if that fails, swarm capture, setting up bait hives for swarms, identification of common pest and diseases and management options for them. Topics will also include dealing with special situations: aggressive hives, queen failures, and laying workers. Field day will include information on how to split a colony, pest and disease ID, and swarm prevention.

Classroom sessions: Wednesdays Feb 15, Feb 22, March 1, 6:30pm - 8:30pm, 3 classes, course code 26356, drop in fee = \$30/class
[San Rafael Community Center](#), 618 B St., San Rafael
Field Day: Sat., Mar. 11th, 1:30pm – 4:30pm (drop in fee = \$40)

Mark your calendar for other 2017 classes and workshops ([additional information](#) available www.bonniebeecompany.com):

Backyard Beekeeping, Sat. January 28, Fairfax Backyard Farmer, 3 hours

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Intermediate Beekeeping, Sat. February 15, Fairfax Backyard Farmer, 3 hours

Backyard Beekeeping, Sat. March 18, Fairfax Backyard Farmer, 3 hours

Field workshop: Beekeeping Basics (using your tools, inspection basics, swarm prevention), Sat., May 13, 9:30am – 12:30pm

Field workshop: Intermediate Beekeeping (splitting hives, queen issues, space management), Sat. May 13, 1:30pm – 4:30pm

IPM / Hive Feeding, Sat May 20, Fairfax Backyard Farmer, 3 hours

Summer and Fall Hive Management class series,
Class room sessions: Wed. 7/12 – 7/26, 6:30pm – 8:30pm, San Rafael Community Center, Field Day: Sat. 8/12, 9:30am – 12:30pm, location TBD

The Art and Craft of Biodynamic Apiculture.
January 15, 2017, Healdsburg SHED, CA

The biodynamic approach to honeybees is centered on the essentials of nest integrity, the understanding of the hive as a singular, sentient being, and the coherence of inner and outer habitats. In this workshop we will study the unique matrix of the life of honeybees and examine how a biodynamic approach can integrate core life principles into our relationship with honeybees and into our apiaries. Michael will introduce new innovative ways within the biodynamic field such as 'Apis Arboreal', the vision of a 'Landscape Apiary', and non-allopathic approaches to health. For info and registration

click <http://healdsburgshed.com/events/art-craft-biodynamic-apiculture/>

Bee Audacious Update

December 11 – 13, participants invited from 6 countries and 24 states came together at Marconi Conference Center in Marshall, CA for two days of discussions to envision bold, evidence-based ideas through which bees, beekeepers and pollination managers could prosper. Even volunteer note takers converged from 8 states – from Hawaii to New York – and Canada to be part of it.

Mark Winston's [summary of the outcomes](#) concisely rounds up the gathering. His write up of the full conference proceedings will be available online at www.beeaudacious.org in March 2017.

[Video of the Public Report Back / Panel Discussion](#) is now available online.

What now? Well, local organizers are shifting their attention to a documentary in the planning phases which is intended to amplify the message that beekeepers around the country are giving in their communities on simple ways that everyone can help pollinators. Sign up for updates at www.beeaudacious.org to find out when the "Buck for a Bee" campaign rolls out next month. We're looking for 200,000 people to each invest \$1 in the next wave of pollinator conscious individuals. Got \$1?

During a conference discussion group, Meghan Millbraith (Northern Bee Network) and Tammy Horn (Kentucky State Apiarist) were encouraged to create a beekeeping app. [They have since started a crowdfunding campaign seeking funding for their bee app, HoneyBEE](#), which will be a real life simulation game that will enable players to experience the joys and challenges of keeping a hive in a variety of environments. Who needs guns and human violence in a video game when nature is tough enough and provide a little bee education.

There was lots of talk at the conference about the need for better / bigger alliances for greater lobbying pressure in Washington. Will someone / group take the baton and run with it? Timing seems right and there's an army of beekeepers out there looking for a positive way to help. Stay tuned to see what develops....

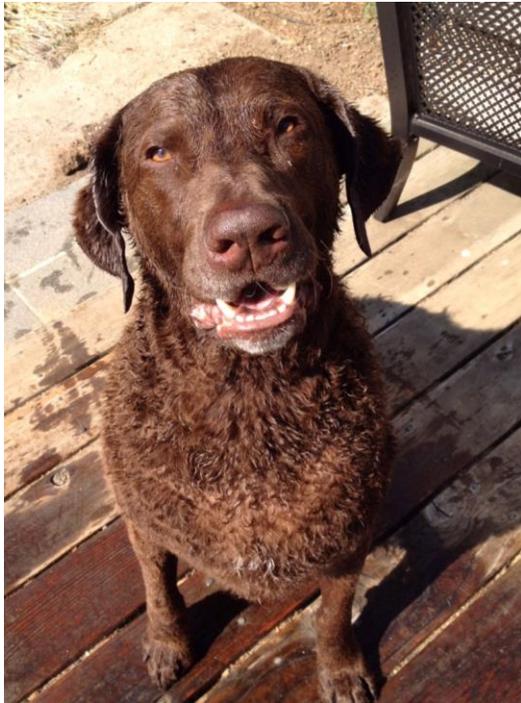


Conference Organizer Bonnie Morse with Keynote Speaker Larry Brilliant

AFB Sniffing Dogs

Club member Sarah Farrell is training her dog, Johnny, to sniff out American Foul Brood. Here is an update on Johnny's training:

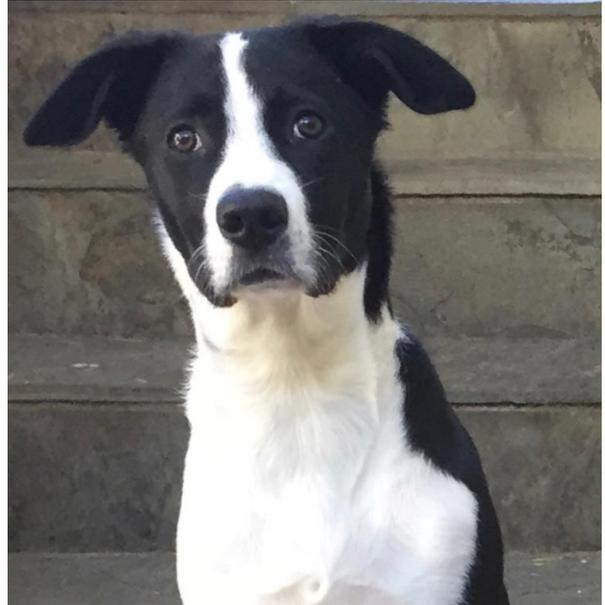
The training is coming along really well. We are still doing the hides in cardboard boxes but Johnny definitely knows what he is searching for now. I thought I was adding in a big challenge yesterday by also hiding some honeycomb and some old brood comb. We need to be sure that he also knows what he's not searching for. I expected this to trip him up a bit but he gave the boxes with the non-infected samples inside the barest of sniffs and kept searching for the AFB. He wasn't at all fooled. For some nose work jobs you need to proof the dog not to alert at really exciting smells, like junk food. I could get there with Johnny but that would challenge him. Thankfully, people don't regularly stash burgers or fries inside their hives so I don't have to proof him on those. If someone does have a burger in their hive, they deserve a false alert.



Johnny

I've decided to train a second dog as well. Johnny is particularly gifted, but he will turn 10 in the spring. I think he can likely work until he's 12, and maybe even past that, but that time will pass in a blink. I've recruited Noodle, my friend's almost 2 year old McNab and Border Collie mix. We have only just started to work but she's also doing well. I started her out

searching for a treat but I paired it with a small container with some AFB infected comb in it right from her first search. After a few searches she tried to carry off the container of AFB! It's a great sign that she is already connecting that weird smell with a reward. She's a wild and wiggly young dog and I think it will take longer to have her ready to work, but I have hope that she will be a reliable back up for Johnny.



Noodle

The next step is to start recreating the conditions in which they will be working by hiding the samples in hive boxes and having us all dressed in gear. I'll start bit by bit with the gear for the dogs. I'm thinking shoes first, then a cone, since they will be the most irritating, and later the clothing.

Sarah, and Johnny, and Noodle

Upcoming Workshops

March workshops with Ross Conrad, Vermont beekeeper, and author "Natural Beekeeping".

Saturday, March 4, 9:30am – 12:30pm, Pesticides and Honey Bee Health, Organic Varroa Mite Control in Beehives

Saturday, March 4, 1:30pm – 4:30pm, Live Hive Demonstration (weather permitting), Overwintering Bees and Spring Management

Registration available soon. Contact Richard Hyde, rh@hyderanches.com for early inquiries.