



# CENTRAL COAST BEEKEEPERS NEWSLETTER

July 2019

ISSUE NUMBER 41

NEXT MEETING JULY 24TH, 2019

## PRESIDENT'S MESSAGE

By Jon Sumpter

I had a chance to meet Dylan Ryals, an undergraduate student from Harvard University (young man's family lives in Albany, Oregon) who is home for the summer and working on his thesis. He's collecting data for a genetic study of various Varroa mite populations among all types of beekeepers. Hobbyist and commercial beekeepers from our club and others throughout the state have been supplying Varroa fresh out of a sugar shake which he helps with. He will send these back to Harvard where their DNA will be sequenced into reams of computer data. The study is important because, though Scientists have sequenced some of the DNA strands for varroa, the focus of the study is to determine if the segments of DNA from the mites he collects that match up with known DNA are alike or different depending on where the bee hives were located, if the bees they came from had been in the Almonds or were recent packages/nucs from the Almonds, type of beekeeper and experience of beekeeper. The hope is that the information gained will lead to more effective treatments/eradication of this menace to all of us. The battle of the Varroa mite goes on!

Our bee booth at the Lincoln county fair was outstanding. Many fair goers commented that it was the best booth there with plenty to do and see from observation hives to honey tasting.

Kathy Cope spearheaded this project and she and her helpers deserve a hardy round of applause. Below see a future beekeeper who got a chance to try on some of the “gear”.



The Oregon State Fair is coming up. For a 4 hour shift you get free parking (close by) and an all-day pass to the fair. AND if you're really adventurous you can be a bear for a few hours or wear

Becca Fain's bee suit. Max Kuhn and Rick Olson are supplying observation hives for the club's two-day coverage at the fair – Saturday, August 31<sup>st</sup> and Sunday September 1<sup>st</sup>. We have several folks already signed up but have several slots to fill. We will pass a signup sheet around at the next meeting and will send out another request for volunteers afterwards if we still have slots to fill.

This month's meeting is going to be very interesting. Come one, come all.

**Our July meeting is July 24, 2019, at the Newport Public Library starting with a 6PM meet and greet, and following with a presentation beginning at about 6:30 and going until about 8PM. This month's guest speaker is one of our favorites - world traveling bee guy Dr. Dewey Caron. He's always enlightening us about the new bee world we live in and he will share some highlights of beekeeping in Ecuador as well as the different types of bees (such as Africanized Bees) that he works with there.**

## OSU Bee Lab in process of testing acid treatments

The OSU Bee Lab is designing an experiment to test oxalic acid vapor and formic acid to determine their effect on open brood. The experiment will have 30 hives – 10 to test oxalic acid vapor, 10 to test formic acid and 10 control hives. Currently, the recommendation is to only use oxalic acid when there is no brood present in the hive. Many beekeepers, however, are using it when brood is present, and the purpose of the study is to determine if this does harm to the brood.

Mite levels will be tested before treatment and after treatment. Before treatment all 30 hives will be evaluated for population, open and capped brood. Two frames from each hive will have a plastic sheet placed over it and on the sheet will be marked the location of the eggs and open larvae, preferably four to five-day old larvae. The hives will be treated, then after a specific amount of time the marked frames will be evaluated as to how many larvae or eggs have been aborted by the bees. It is known that the bees will abort anything that gets contaminated.

Three Master Level Beekeeping students, one being our own Max Kuhn, participated in a preliminary test with 3 hives to inform the development of procedures for the 30-hive study. Stay tuned for study results which we will share when the study is completed.

# July Beekeeping Tips

1. The honey flow has ended, and the blackberries are in the berry stage. Make sure that any remaining honey flow from other sources has room. Put supers on as necessary but it is late, so you need not have lots of empty supers on your hive now.
2. Make sure that the bees have a supply of water nearby for the hot weather days when they need to cool their hives, Bees transport a considerable amount of water to cool their hives and it needs to be clean and from a nearby source,
3. Also, the hives need some ventilation in order to cope with hot weather. Small openings, even as small as a toothpick under the hive lid and perhaps a crack or two between boxes will help the bees keep their hive cool and productive. As long as a honey flow is on and there are not too many yellow jackets around, small ventilation openings in the hive are helpful, not harmful, during warm weather.
4. It is time to begin to prepare for honey extraction. Get your extractor clean and uncapping knife ready. Honey that is mostly capped and at least below 18.2% moisture level is ready to extract. Most early honey is easily within this range now even if it is not capped over. Make sure that all of your super removal is done before you need to put on medications.
5. Pick out a method of pulling the honey off your hives that is appropriate for the number of hives you keep. Smoking and brushing bees off combs work for beekeepers with one to five hives. If you choose this method, work slowly and be gentle with the bees. They will usually react well, especially if you brush them off in front of the hive.
6. If you have more than five hives, you may want to think about escape boards or fume boards as a removal method. Make sure that, whatever method you use, the equipment needed is in good shape and ready when you need it. Use caution when removing honey. Cover honey supers that have been removed to avoid robbing.
7. Honey supers may become the object of attention from wax moths. Be careful about storing supers for over a few days in the warm weather of late summer. This weather will allow wax moths to attack your combs. Combs can be placed in a freezer to kill wax moth eggs and eliminate the danger.
8. Taking honey off the hives and extracting is hard work. Make sure to take care when lifting boxes of honey that you do not injure your back. Also, watch yourself for signs of overheating and dehydration when you take honey off the hives. Drink lots of water and give yourself time to cool *off*.
9. It is time to think about treating your hives for varroa. Consult the Tools for Varroa Management to find a treatment that works for your situation and the temperature. **Do not treat when honey supers are still on the hive.**

## WAS Conference - Ashland, Oregon, 2019

by Rick Olson

We were lucky enough to attend the WAS Conference in Ashland July 12-14. Dr Marla Spivak and Dr Meghan Milbrath updated us on the changing understanding of honeybees, pathogens and disease transmission risk and

gave us some thoughts on working towards treatment free beekeeping. The key being we aren't there yet but "working towards" that goal.

The hurdles of beekeeping are greater and more difficult than ever before-- disease pressure changes every year. There is pathogen and viral spill over on flowers between species even to ants. As we know all bees are important--honey bees as well as native bees. Dr. Spivak raised some interesting questions: Do we want unlimited back yard beekeepers? Do we want unrestricted movement of bees in nucs, packages and queens and unrestricted movement onto public lands? How do we balance economics with honeybee health?

There are no laws extending to the ethical and moral treatment of invertebrates. It does not result in the greater good to not treat honeybees--you wouldn't let a sick animal slowly die without treatment. Complicating the issue is that research has indicated that viruses like DWV have been transferred to bumble bees through these mechanisms though the pathology is not known at this time. Are we ready for honeybees to be demonized? How do we cull diseased hives to restrict pathogen transmission?

Native bees need their day in the sun so we shouldn't pit bee against bee. A better way would be to extend ethics to all animals in human care. It is not good animal care to let bees die every year. Through breeding, stock selection and treatment we can evolve more resistant bees.

Viral spill over to native bees and the elimination of diseased honeybees through the "live or let die" paradigm may need revisiting. The future of bees is not sustainable with the current level of disease transmission. A treatment free regime should not come at the expense of bees, beekeepers or the environment. We need to decouple breeding from management. Letting bees die of Varroa mites is not management. Control of disease has to be maintained while working on permanent resistance. What we need is a system of epidemic mitigation while working towards genetic advancement. Other epidemics such as tracheal mites and AFB were brought under control in this way.

We don't develop resistance by exposure--a dog will never learn to drive by placing him behind the steering wheel of a truck. Resistance is developed in a stepwise fashion and takes time. If the disease pressure is too high resistance will be lost for that colony when it collapses. Migration or movement of colonies does not allow for natural selection through evolution. The intersection of three things, the host, vector and pathogen is called the Nidus of pathogen transmission and leads to epidemic. Since we don't have anti-viral drugs our only option is to treat the vector--Varroa. Dr. Milbrath emphasized the use of locally raised hygienic queens, good nutrition, brood breaks and treatment must be used for now if we are to get to treatment free beekeeping.

## Tips and Ideas from the Western Apicultural Society meeting

By Becca Fain

It was very exciting to see and hear so many young people at this year's meeting. They truly represented the future of beekeeping and brought some very interesting and though provoking ideas to the table. Rick has done a great job of covering the philosophical issues raised at this year's meeting, but I wanted to share some tips and ideas I came away with.

- 1) From Hillary Kearney of Girl Next Door Honey – consider “renting” a hive to folks who want the ambiance of bees in their garden to pollinate plants and trees but who really do not want the job of managing the hive. She rents a hive for the season at a significant price, which includes her

management of the hive, and at the end of the season processes the honey and shares it with the homeowners. This way the bees get properly cared for and have a much better chance of survival.

- 2) As beekeepers, way too many of us constantly struggle with locating the queen, particularly if she is unmarked. Hillary Kearney has written a book intitled "Queenspotting" which is full of pictures of frames with queens on them that helps to train the eye to quickly find/identify the queen in any hive. She also shared that when looking for the queen in the hive, focus on the frame where there are a significant number of bees walking around the top of the frame. The queen will probably be on this frame or the one on either side.
- 3) Dr. Judy Wu-Smart, from University of Nebraska-Lincoln, gave an excellent presentation on honeybee research and how to utilize it to improve your beekeeping. The really big takeaway for me was learning about Google Scholar and how it can assist me, in addition to the American Bee Journal and Bee Culture Magazine, to keep current on new ideas and innovations. If I wanted to be an all-out bee nerd, I could also subscribe to the Journal of Apicultural Research.
- 4) Dr Wu-Smart also did a hive demonstration in the Bee Girl Center For Education and Research apiaries. We picked up the following tips:
  - To move bees off of an area of the brood without agitating them, gently touch bees with your open palm and they will move away. Nurse bees don't sting!
  - When looking for eggs look for the glossy reflection of royal jelly in the cell.
  - A young queen may lay more than one egg in a cell , particularly if space is limited, so don't panic when you see this.
  - Older purpled-eyed brood will have thinner, darker cappings.
  - If brood area is back filled with nectar replace with drawn comb not foundation.
  - Bees may be reluctant to cross through a queen excluder. Shake some bees above excluder to get them used to it.
  - Bring technology into your apiary. If you are having difficulty seeing eggs, take a picture of brood with your cell phone and then enlarge it to see eggs.
  - Pollen entombed in cells with propolis will be hard and dark colored and is low in nutrition or may have high levels of pesticides.
  - Migrating stress on colonies can cause the manifestation of diseases like chalkbrood.
  - Powdered sugar irritates bees and causes them to heat up which dislodges Varroa mites.
- 5) Dr. Meghan Milbrath is from Michigan State University and owns and manages Sand Hills Bees. She discussed the idea that making late season splits is not necessarily the death knell for the hive, but a way to increase my apiary while introducing desirable genetics and performing mite control with a brood break. It's all about getting a strong well bread queen, providing proper nutrition and maintaining the hive in a nuc overwinter to eliminate excess area to heat and to keep stores near the cluster.

## Oregon Dept. of Agriculture Apiary Registration

Every person who owns, or is in charge of, five or more colonies of bees located within the state or Oregon, must register their hives with the Oregon Department of Agriculture. If you currently own fewer than five hives, you are not required to register your bees at this me.

The current cost of apiary registration is \$10 with an additional charge of \$0.50 per colony for five or more hives. After July 1, the registration fee will increase to \$20. The fee per hive remains at \$0.50 per colony for five or more hives.

To see the Oregon's apiary registration rules and regulations and registration form, check out the following web page - <https://www.oregon.gov/ODA/programs/IPPM/InsectsSpiders/Pages/BeesApiaries.aspx>

## The Oregon Master Beekeeping Program is getting it's 2020 Apprentice class organized which will start this coming January

This is a great program and many of our members have participated.

The Oregon Master Beekeeper Program is designed to improve and maintain healthy bee colonies through education and service. It represents a cooperation between Oregon State University and the Oregon State Beekeepers Association. The program provides a foundation of knowledge giving beekeepers a long-term, in-depth training beyond the standard classroom experience and emphasizes hands-on experience.

There are three levels of certification: apprentice, journey and master levels of training.

### Apprentice Level

Applicants with 1 year or less experience will participate in a two-year program. You don't have to own your own hives. You can utilize the hives of your mentor for guidance, inspections and documentation. You have to meet the requirements of the first year to be assigned a mentor in the second year. Students coming into the program with 1-4 years would be assigned a mentor. The mentor will see him through the four seasons of beekeeping. Each meeting is documented with a seasonal checklist. Students will keep a log of the hive activity he observes as part of the learning experience.

Applicants who were not able to be matched next year will all, regardless of experience level, be offered the opportunity to start in the "Getting Started" slot so they will not have to wait another year to get into the program.

<b>'Getting Started'</b> <b>1 year or less experience</b>	<b>'Continued Learning'</b> <b>1 to 4 years' experience</b>
<ul style="list-style-type: none"> <li>• \$150 non-refundable fee</li> </ul>	<ul style="list-style-type: none"> <li>• No additional fee</li> </ul>

<ul style="list-style-type: none"> <li>• No hive required</li> </ul>	<ul style="list-style-type: none"> <li>• Hive access required</li> </ul>
<ul style="list-style-type: none"> <li>• No assigned mentor</li> </ul>	<ul style="list-style-type: none"> <li>• First in line for assigned mentor</li> </ul>
<ul style="list-style-type: none"> <li>• Earn 6 education points</li> </ul>	<ul style="list-style-type: none"> <li>• Earn 6 education points</li> </ul>
<ul style="list-style-type: none"> <li>• Mandatory attendance at an OMB Apprentice class for a minimum of 10 hours in person or via the web</li> </ul>	<ul style="list-style-type: none"> <li>• Additional class time is not required</li> </ul>
<ul style="list-style-type: none"> <li>• Spend 2 hours "in the bees" *</li> </ul>	<ul style="list-style-type: none"> <li>• Meet with mentor "in the bees" 4 times to complete 4 field worksheets</li> </ul>
<ul style="list-style-type: none"> <li>• Pass an open book non-timed written exam with a score of 90% or better</li> </ul>	<ul style="list-style-type: none"> <li>• Submit 4 hive maintenance log entries covering the bee year</li> </ul>
<ul style="list-style-type: none"> <li>• Complete all above requirements between January and September 2018</li> </ul>	<ul style="list-style-type: none"> <li>• Complete all above requirements during 2019</li> </ul>
<p align="center"><b>Eligible to move to Continued Learning</b></p>	<p align="center"><b>Certified as an Apprentice &amp; eligible to move to the Journey level</b></p>

*\*Bee school, club field days, apiary visit or other activity that provides the opportunity to see someone work honeybees.*

The classroom training consists of eight two-hour blocks of instruction with an optional follow up to tie everything together. The classes will follow the text that is included, "The Beekeeper's Handbook" by Sammataro and Avitabile. On-line instruction is offered as well.

The open-book exam is worth a hundred points that can be taken at any time during the course. I like to think of it more as a "guided study"--there's no pressure and is meant to fix the information into your knowledge base.

Journey Level

Building on the apprentice experience and knowledge base the Journey Beekeeper gains and is able to demonstrate increasing skill and expertise with honey bees and colony management, expands knowledge and understanding of bees and their stewardship, and provides community service by sharing information about honey bees and beekeeping with the beekeeping



community and the general public including time spent in classroom and field settings. Ability to work independently with a broad knowledge of and work in various areas of beekeeping is stressed.

The **Journey** and **Master** level will offer additional training in advanced beekeeping topics, such as queen rearing and integrated pest management. These levels require community service to educate others about honeybees and beekeeping.

The Master level also includes opportunities for bee-related research.

Even if you are just thinking about it get your name on the waiting list now.

There is no obligation to do the program. Program recipients will be selected on July 31st.

Click on link below to learn more about the program and get on the waiting. <https://extension.oregonstate.edu/mb/apprentice-beekeeper-level>

## ANNOUNCEMENTS

**August 23-September 2<sup>nd</sup> – 2019 Oregon State Fair, Salem**

**September 21<sup>st</sup> – Northwest Washington Beekeepers Conference – Snohomish PUD Auditorium, [www.brownpapertickets.com/event/4248173](http://www.brownpapertickets.com/event/4248173)**

**October 25-27<sup>th</sup> – Oregon State Beekeepers Association Fall Conference, Florence Events Center, Florence, OR**

**November 12-14<sup>th</sup> – California State Beekeepers Annual Convention, Pechanga Resort and Casino in Temecula, CA – [www.californiastatebeekeepers.com](http://www.californiastatebeekeepers.com)**

**January 8-11<sup>th</sup>, 2020 – American Beekeeping Federation Conference & Expo, Schaumburg, Illinois [www.abfnet.org](http://www.abfnet.org)**

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