CENTRAL COAST BEEKEEPERS NEWSLETTER

May 2021

ISSUE NUMBER 60

NEXT MEETING MAY 26TH 2021

Topic for the May 26th Zoom Meeting:

Presentation: "Alternative" Beehives and Beekeeping

The meeting will be on May 26 at 6:30pm via Zoom. We will mail out a link to this one-hour zoom meeting about 3 days prior.

PRESIDENT'S MESSAGE

By Stu Willason

Hopefully, your swarm boxes are set and ready for bees. At least a couple of people in the club have reported swarms from their hives. Jim who keeps his bees in Swisshome has had three swarms from his hive – it must have been a big hive! Right on the coast we seem to be a bit behind. None of our hives show any swarming "desires" yet, but with good weather that will most likely change.

At last month's meeting we talked a little bit about swarms. The CCBA website has a new section "Club Meeting Videos" (Club Meeting Videos) that highlight recent club presentations and it also has a copy of Fonta Molyneaux's *Free Bees! The ancient art of Swarm Catching, Trapping, and Bait Hives.* Fonta is from the Lane County Beekeepers and is an expert on catching swarms. Also on the website are videos of Rick's presentations on *Queens,* which he presented at our February meeting, and on *Installing Packages and Nucs*, which he presented for Lane County Beekeepers – Thanks Rick!

Darren from our club would like to trade a complete beehive (modified Warre in great condition w/o bees) for a primary swarm and he will even help catch the swarm if needed. It is a pretty good deal so if you have or see a swarm give him a call – (360) 850-3917.

Also, many thanks to Max for presenting on the topic of Hive Inspections last month. Like always, Max has excellent advice and ideas.

At the CCBA May meeting I will be presenting on different types of beehives that are used throughout the world. Most beekeepers are very familiar with the standard Langstroth hive but there are a plethora of different types of hives that beekeepers use. Britte and I have kept bees in four different types of hives over the past 10 years and I will give our impressions of each type – the good and the bad.

While doing a little research about different hives of the world I came across the 64 page brochure for the European *Beehaus Beehive*. The *Beehaus* is a greatly modified Langstroth long hive made of colorful insulated plastic. It has been around for a while in Europe but hasn't caught on here in the US. The brochure has a surprisingly thorough review of beekeeping from a European perspective and is an interesting read. *Beehaus* Beekeeping Guide - Beehaus beehive brochure .

Also tying into this concept of alternative beekeeping is Thomas Seeley's Darwinian Beekeeping Seeley from the March 17, 2017 issue of American Bee Journal *(you can even download the entire issue of the magazine)*. Even though

the article has been out for a while, I thoroughly enjoyed reading about his take on modern beekeeping from an evolutionary perspective. Maybe we all need to be thinking more like Darwin?

If you haven't already done so, you can renew or start a new membership for only $15 per person or $25 per family. The membership form is on our website CCBA Membership Form .pdf If you are renewing, you can also use PayPal by sending it to the club's email: centralcoastbeekeepers@gmail.com.

If you have any suggestions for topics for future zoom meetings, please let us know. We want to make the meetings as relevant as possible for everyone in the club so please share your thoughts and ideas, they are important!

See you on Wednesday May 26th at 6:30 PM!

Meet a CCBA Member

Each month we'll be featuring one of the club's members to find out a little about their beekeeping passion. This month we are featuring Jim Parrish, an active member of the club, who lives in Florence.

Why did I get into beekeeping?

I got into beekeeping because I thought it would be a good hobby. I could learn about a subject for life – it's never ending what we can learn. Bees are good for the environment and I like honey.

How many hives do I have now?

I try to over winter two hives. Last winter one died out. I made a split from that hive and that hive has swarmed three times now. I was able to capture two of those swarms. So I have four hives now. The parent hive, one split, and two swarms.

Jim with his hives.

What was my biggest mistake?

I laugh at this question. I think I have made them all.

This being swarm season I remember getting two swarms from an orchard late in the evening, after the commercial beekeeper left. I put the boxes in my truck and headed home. However I had not secured the boxes together with straps or staples to the bottom board. The boxes shifted – the bees came boiling out – I was at a stop light in town, and behind me was a police car. The officer hit his lights and siren. Using his loudspeaker, he tells me that I have a problem. He was not going to get out of his car. I got out of my truck and told him I would move to a quiet place. He followed me with his lights and that damn siren going till I found a spot to correct the problem. This police action was in the Hood River News – fortunately with no names, and no ticket.

Moral of this story – secure the hive together very well when moving a hive.

What was my biggest success?

That I keep learning how to work with the bees. Right now it's how to make, nurture, and use splits.

One tip for a fellow beekeeper.

Keep your eye on the mite counts in the hives – and act to keep them low.

What is my favorite bee book?

Nectar and Pollen Plants of Oregon and the Pacific Northwest : D.M. Burgett, B.A. Stringer, and L.D. Johnston. I seem to refer to it more than most other books I have.

What is a tool that I can't do without?

EZ hive tool, it fits my hand and how I work.

Why do I enjoy CCBA membership?

The people and their willingness to share knowledge.

OSU Honey Bee Lab Videos

Carolyn Breece of OSU Oak Creek Apiary fame has created a video channel. These are short videos, 2 to 12 minutes long. Click link below to view.

Topics include package installation, lighting a smoker, finding the Queen, marking the queen, early spring inspection, American foulbrood, chalkbrood, and swarms. Here's the link:

https://media.oregonstate.edu/channel/In%2BThe%2BBees%2Bwith%2Bthe%2BOSU%2BHoney%2BBee%2BLab/163332232

Opportunity to be the North Coast Representative

The North Coast Rep is the link between the Oregon State Beekeepers Association and beekeepers on the central Oregon coast. In the past, the job ideally went to a beekeeper who had connections with both CCBA and the Tillamook club but that's no longer as significant as both clubs are being run by strong presidents who involve themselves with OSBA.
There are only two regular duties for the reps. One is to write a short monthly article about your area for the BeeLine. The following is part of the monthly guideline sent out by the BeeLine editor:

"Please let us know how you and your bees are doing, what the bees may be finding during days as they venture out, stories of bees and/or beekeepers (though there's no distinction in ways), photographs, events to be posted, how events to date have gone, what you are planning, Apis interests and special projects, favorite recipes..."

The second responsibility is to attend the quarterly OSBA board meeting, either in person or via Zoom. The job is not onerous and gives the Rep a chance to rub shoulders with some of the movers and shakers in Oregon's beekeeping world and be part of discussions and decision making about our bees and beekeepers.

If you are interested, call Kathy Cope at 541-264-9222.

OSBA quarterly report

By Kathy Cope

Centennial:
This year was to be OSBA's centennial year and there were so many ideas for celebrations, activities, fund raisers, etc. Well, *that's* not going to happen! However, someone pointed out that OSBA could join the ranks of free-thinkers and celebrate their centennial next year instead and it looks like that *is* going to happen.

State Fair:
At this point the fate of the State Fair is still up in the air. More later as decisions are made.

Convention:
Last year OSBA held their convention online and, in spite of a lot of frenzied last-minute planning, it was excellently done and very well received. The disappointment of not being able to meet and talk with beekeepers from around the state and discuss products and equipment in person with vendors was mitigated somewhat by the fact that many people who would have been unable to travel so far to attend the conference were able to be there via Zoom. It's time to start planning again and the question is whether we will able to have the conference on site or whether to plan on another online event. Membership is going to be polled to see how many people are actually interested in an in-person conference, with the understanding that this decision may be taken out of our hands. OSBA members, keep an eye out for that communication and let the board know how you feel.

Picnic:
Since the Centennial is postponed for now, State Fair in question and the Convention likely to be online again, desperate measures need to be taken to give our beekeepers a chance to actually visit with one another. The solution: an outdoor picnic. Sites that are both available and provide enough room for adequate social distancing are being checked out. More later.

Archived speeches:

It has been suggested that, subject to permission being given by the speakers, talks given at the association meetings be recorded and archived on the OSBA site. This would be an invaluable resource for people who were unable to attend the meeting and listen to the talk in person as well as those who would like to go back and review what the speaker said. Let your club board members know how do you feel about this service.

Bee Line:
And lastly, as more and more people get their copy online and since we get a better rate when at least 200 copies are printed, there are extra copies of the Bee Line available each month. It was suggested that these might occasionally be given out to people, businesses or organizations that might be interested in beekeeping and in the local bee clubs. If you know of a business that might find their interest in beekeeping stimulated in such a way, please let one of your board members know and a copy will periodically be sent.

Member Request

I am hoping to collect a swarm this spring to populate a hive. I have a vertical top bar hive (Warre style) with windows I'd like to trade for a primary swarm. I thought perhaps a bee club member may have more swarms than equipment and an unusual bee hive with windows would be an incentive to trade away a swarm. I have all the gear to collect a swarm including a bee vac.

I live in Florence and would be willing to travel a bit to collect a swarm. I know this is an unusual offer and feel free to tell me to buzz off.

About the hive....I kept bees in this hive for several years. It has two boxes (with a total of three windows), screened inner cover, roof, and screened bottom/stand.

I never had any diseases that I'm aware of in this hive or my apiary but I cleaned the interior of the hive by scraping and wire brushing. I also painted the exterior and put new plexiglass windows inside. The hive is ready to go.

If this offer seems reasonable, please pass this along to any beekeepers along the coast.

Darren 360-850-3917

Entomology – Honeybees run vaccination programs, too

kitoscarMarch 19, 2021

AN OLD SAW There is nothing new in the sun. But it may still be surprising that humans are not the only ones to invent vaccination. Works just published in Experimental Biology Journal Gyan Harwood of the University of Illinois at Urbana-Champaign confirms that the bees arrived there first. It also suggests that they carry out what looks like a prime boost childhood vaccination program. Bees are clustered, so there is always a risk of disease that attacks the hive. The lack of bees has long confused entomologists, as most animals living in crowded conditions have a particularly strong immune system. Indeed, they actually have fewer immune-related genes than most lonely bees.

Part of the answer discovered in 2015 is that the queen bee vaccinates an egg by transferring a piece of protein from the cause of the disease to the egg before spawning. They act as antigens that trigger the development of a protective

immune response in developing adolescents. But that observation raises the question of how the Queen receives her antigenic supply in the first place. Because she lives purely in royal jelly, a substance secreted by worker bees in their stages of life (before the period they spend flying) when they act as larval nurses. Around the foraging of honey and pollen). Therefore, Dr. Harwood wondered if nurses were incorporating fragments of pathogens they consumed while eating the victories carried to the hive by foragers into the royal jelly they were producing.

To test this idea, he teamed up with a group at the University of Helsinki, Finland, led by Heli Salmela. Together, they collected about 150 nurse bees and divided them into six queenless mini-hive with a herd of larvae to care for. They gave the nurse sugar water instead of honey and stringed this syrup for three hives Larva of Paenibacillus, A bacterium that causes a disease that kills urticaria called American foulbrood.

In this case, to prevent the outbreak of such infections, Dr. Harwood and Dr. Salmera pre-heated the pathogen and killed it as such. They also labeled dead bacteria with fluorescent dyes to make it easier to track their fate. And surely, fluorescence microscopy is P. Larva It was in royal jelly secreted by those bees given stringed sugar water. In addition, examination of this royal jelly revealed elevated levels compared to untreated honey bee royal jelly. P. LarvaOf, an antibacterial peptide known as defensin-1. This substance is believed to help the bee’s immune system prevent bacterial infections.
After all, these findings suggest that the nurse bee is actually passing the antigen to the Queen to inoculate the eggs via royal jelly. The larvae also receive royal jelly for the first few days after hatching, which means that the nurses are also inoculating the larvae. Therefore, each baby bee has been vaccinated twice.

It has not yet been determined whether this is simply a belt-and-brace approach, or whether the second dose is actually equivalent to a prime boosted human vaccination that doubles the effectiveness of the first dose. But in any case, it seems to be a protection. Flock, not as flock as immunity.

This article was published in the Printed Science and Technology section under the heading “Swarm immunity”.

WHAT DOES THE NEW RULING ON OXALIC ACID IN HONEY MEAN?

MARCH 10, 2021 BY MEGHAN MILBRATH UNIVERSITY OF MICHIGAN

On February 23, 2021, the FDA finalized a ruling that establishes an exemption from the requirement of a tolerance for residues of oxalic acid in honey and honeycomb. For many, this was no surprise, as it has been in the works (and open for public comment) for several months. However, the announcement created a stir among beekeeping forums and groups, resulting in a lot of attention, and unfortunately a lot of misinformation being shared. The purpose of this post is to explain this ruling and what it means for you and your bees.

The short answer is that this ruling does not change the way you use oxalic acid in your hives—it does not mean you can use oxalic acid with honey supers on. The long answer that explains the reasoning is below.

It is important to understand the difference between the goals of the FDA and the EPA, and the difference between a tolerance level and a pesticide label. The role

of the FDA is to protect human and animal health. One of the ways that they do this is through enforcing food tolerances. A tolerance is the maximum amount of a specific pesticide that is permitted to be on a certain food that will be marketed in the US. This tolerance level is set by the EPA (https:// www.epa.gov/pesticide-tolerances/about-pesticide-tolerances). The goal of a tolerance is to ensure that foods are safe for human and animal consumption. Set tolerance levels take into consideration all of the different foods a particular pesticide can be on. For example, if pesticide X is labeled to be used on both cherries and apples, the EPA would establish residue limits (tolerances) individually on both cherries and apples that are low enough to account for the fact that some people are going to be eating both types of fruit, ingesting pesticide X from multiple sources. These tolerances are regulated through targeted sampling. The USDA and FDA will analyze food samples, and if they are above tolerance levels, they may take regulatory action. Usually they will contact the state department of agriculture to conduct investigations, and foods with illegal residues are considered adulterated and typically seized. An exemption from the requirement of a tolerance means that the FDA will not measure a food product for that particular pesticide. So, this recent ruling for oxalic acid in honey means that the FDA and USDA will not test honey for the presence of oxalic acid, or if oxalic acid is found during the sampling of honey, it will not result in any regulatory action. While too much oxalic acid can be dangerous, it does show up naturally in a lot of foods, so it makes a lot of sense for the FDA not to look for it specifically in honey. This is great! This means that if you are selling honey or beeswax, and someone tests it, you are not going to get all tied up with restrictions or regulations if oxalic acid were to show up in it. The FDA's goal is to protect human health by limiting the amount of residues on certain foods through the use of tolerances. These tolerances are enforced by testing foods. An exemption from a tolerance means they will not be testing those food products for that particular pesticide.

The EPA on the other hand, has broader interests than just human health. The EPA is also concerned about how pesticides are used (not just how much ends up on final food products), which is why they enforce pesticide label restrictions. A pesticide label describes many things such as what should be worn while applying the pesticide, if it should not be mixed with other pesticides, and how it should be applied. Pesticide labels are written by the manufacturer of the pesticide and approved by the EPA. Labels relate to tolerances in that if used according to the label, there should be no illegal residues. So tolerances are basically one tool to ensure pesticides are applied according to the label.

The label for oxalic acid currently states “Do not use when honey supers are in place.” As long as this label is in place, it is the law, regardless of FDA tolerance rulings. However, that doesn’t mean that this label restriction is permanent. Manufacturers are constantly updating their pesticide labels as new research is done or as situations change. This means that it could be possible that the manufacturer may submit a new label to the EPA for approval in the future, especially if there is new research. But for now, that has not happened, so do not use oxalic acid while honey supers are on. If you want to make a change regarding pesticide use in honey bees, it is important to know who the manufacturer is of the labeled product, as they are the ones that will be changing the label. You can contact them, and you can also support the researchers who are working to study the effects of pesticides on honey bees and honey so that there is more scientific evidence to drive change.

The final important regulatory consideration is that pesticide use and registration is done at the state level. Your state may restrict oxalic acid use, or they may not enforce it in all situations. It is important to understand rulings in your state. From the beekeepers’ perspective, however, these label limits are not that restricting, because oxalic acid is not that useful when colonies are in honey production (and there are other options for use at that time).

Some points to consider if you were hoping to use oxalic acid during honey production:

- It is important to use more than one treatment when managing mites. Using only multiple applications of a single pesticide like oxalic acid over and over is how pests develop resistance. Use Oxalic acid as part of your Varroa mite management strategy not as your only mite management strategy.

- Oxalic acid does not work through the cappings (Rademacher et al. 2006). During peak summer, when honey supers are on there is usually a lot of capped brood in the hive, and most of the Varroa will be in the capped brood. If you treat at this time, you will be missing most of the mites. Some beekeepers try to get past this by treating many times, but that can be damaging. Any time you treat it is disruptive and damaging to bees, so it is important to time treatments so you are maximizing damage to mites while minimizing damage to bees. Otherwise you will cause unnecessary harm to your colony.

- When honey supers are on there are often a lot of open brood cells as well. Oxalic acid is known to cause damage to open brood (Terpin et al. 2019). Damaging brood during honey flow can weaken the colony later in the summer.

- We already have treatments that are labeled for use when honey supers are on and that work through the cappings—Mite Away Quick Strips and Formic Pro. If you live in a place where mite levels get high during honey production, use these products instead.

Oxalic acid is still a useful tool for beekeepers to keep Varroa levels under control. Oxalic acid is the best tool to use when colonies are broodless. For example, it can be applied to new packages, and it is often used with success to clean up mites in the fall after bees have stopped brood rearing. Some beekeepers have also used oxalic acid in conjunction with splits and queen cells when they are making increases, to reduce the mites in newly created hives. Oxalic acid is not the best tool when a colony is in honey production with a lot of brood and it still isn't labeled for use when honey supers are on.

For more information on the topic, please see these new resources from the USDA: Information on the Upcoming Amendment to the Varroacide, Oxalic Acid (API-Bioxal™) Resources for Varroacide Registration

##########