



CENTRAL COAST BEEKEEPERS NEWSLETTER

February 2018

ISSUE NUMBER 23

NEXT MEETING FEBRUARY 28TH, 2018

President's Message By Patti Johnson

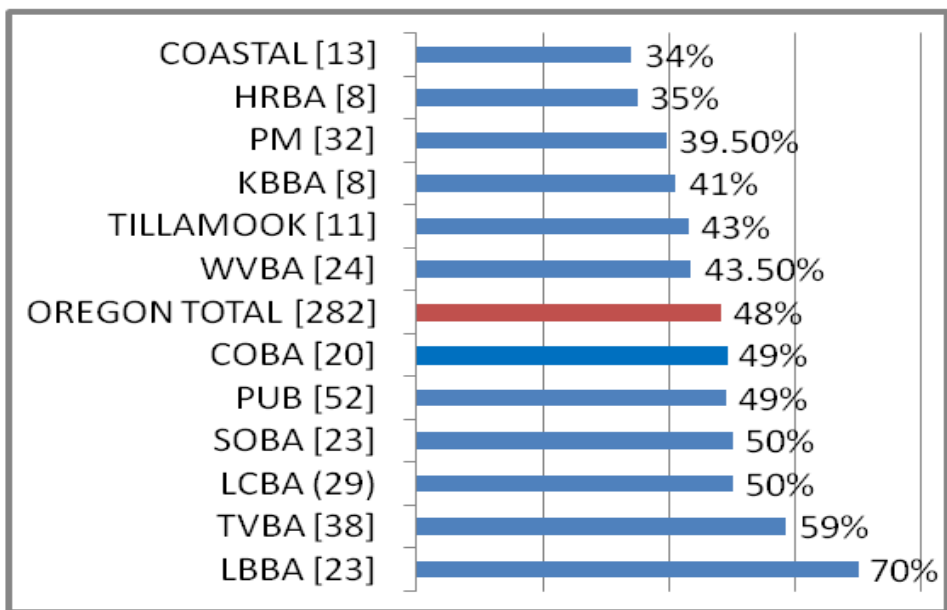
Well, the weather outside is definitely frightful, feels more like Christmas than the arrival of spring. Luckily the girls had a bit of a break with lovely weather before the re arrival of winter weather and were able to get out and have cleansing flights and forage a bit. Spoke to a Eugene area beekeeper at the Honey Lover's Festival who indicated that he already had honey supers on his hive. I wish!

Anyway, out here on the coast we continue to work our bees and hope for a successful spring. Toward that goal, club members have taken advantage of our group purchasing power and ordered 36 nucs, 49 packages and 2 queens for delivery in April.

Of course, we have had losses already on the coast and more may be coming. In order to assist club members in diagnosing the root cause of their losses, the topic for our February meeting will be, "**Why did my bees die?**" Max Kuhn and Rick Olson will be leading this timely discussion. In preparing for the meeting, I thought it might be useful to share a few facts that pertain to the Coastal Bee groups. This information is taken from Dewey Caron's annual Bee Informed Survey, of which many of you participated.

Hive losses for the 2016-2017 survey were 48% up from last year's average of 43.8 %.

The majority of the OR respondents (199= 70.5%) keep bees in the Willamette Valley of Oregon. Additional surveys were received from 13 Coastal beekeepers, 11 from Tillamook beekeepers and various other sites. Overwintering losses of small scale Oregon backyarder beekeepers were elevated in 2016-2017 compared with the previous season.



Also interesting was the winter loss by hive type. The result is graphically presented below. As expected, overwintered colonies had the best survival, and packages did the poorest with about a 1/3rd difference.

Nucs (44%) did nearly as well as overwintered colonies. Split/divides, swarm captures and feral hive transfer losses were over 50% losses.

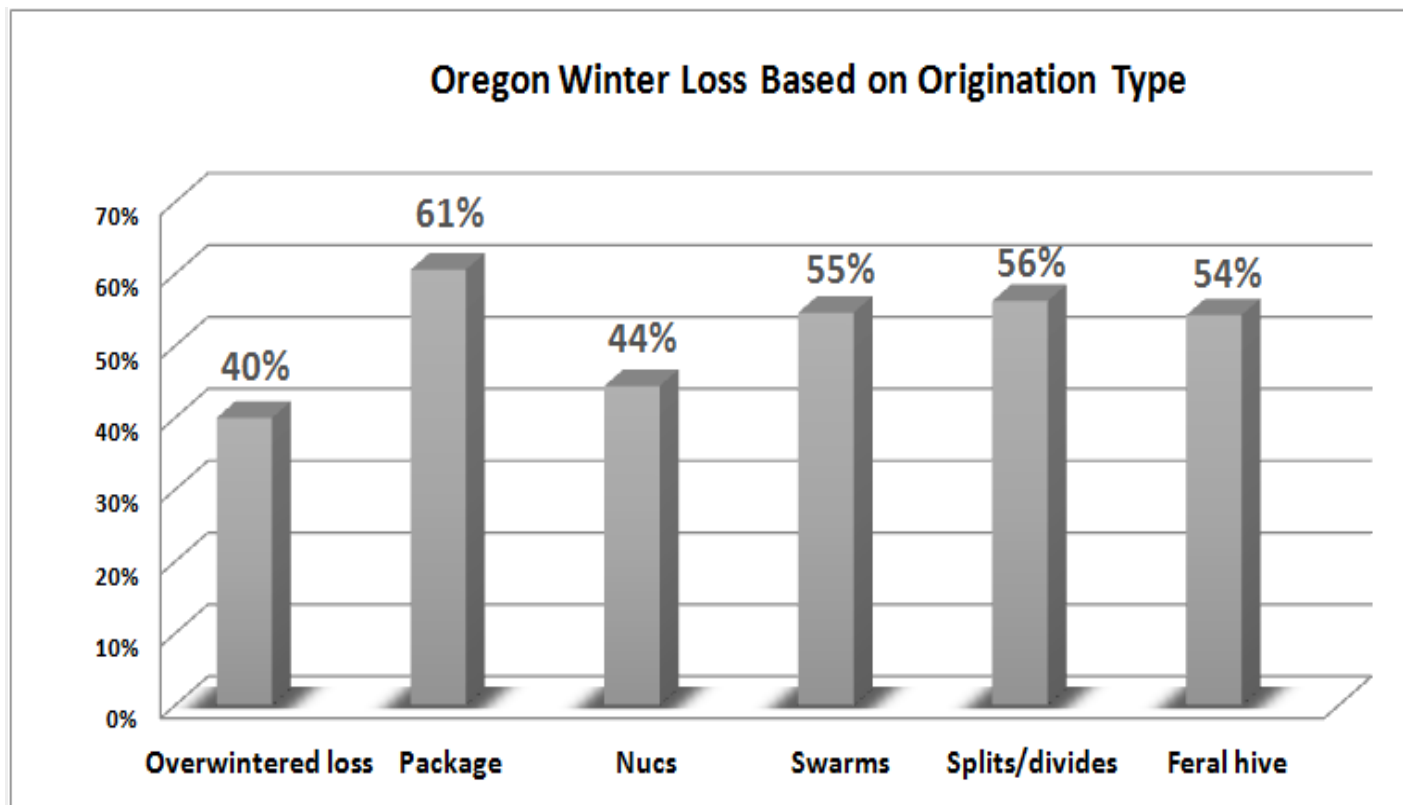


Figure 7

So Why do colonies die? Dr. Caron states, “there is nobody to come check why a dead colony died. Close examination may eliminate some possible factors but we are still often left with more than one “likely” cause of death.”

We are dealing with living animals which are constantly exposed to many different challenges, both in the natural environment and the beekeeper’s apiary.

*The **four major factors in colony loss*** are thought to be: **mites, pesticides, declining nutrition adequacy of the environment and diseases**, especially viruses and Nosema.

Management failure to do something or doing things incorrectly remains a factor in our losses as well as alteration to the bee’s natural environment.”

*Information from: “**Why Did My Bees Die?**” **Bee Informed Partnership 2016***

By Meghan Milbrath, Ph.D.

“Characteristics of the common early winter death in northern states:

1. The colony was big and looked healthy in the fall
2. A lot of honey is left in the top supers
3. The cluster is now small, maybe the size of a softball
4. There are hardly any bees on the bottom board
5. Near or just below the cluster is a patch of spotty brood – some fully capped, and some with bees dying on emergence (heads facing out, tongues sticking out).
6. If you look closely in the cells around the brood, you will see white crystals stuck to the cell walls, looking like someone sprinkled coarse salt in the brood nest.

AND

7. You don’t have records showing that varroa was under control.

Sound familiar?

We see this classic set of symptoms over and over. A big colony that seems to just shrink down and disappear. Many people want to use the term colony collapse for this type of death, and while collapse is a good descriptor of what happens, this is not true colony collapse disorder. This is death by varroa associated viruses.

How does it happen?

The big colonies –While beekeepers are often surprised that their big colonies are the ones that are gone first, it makes perfect sense in terms of varroa growth. Since varroa mites reproduce in capped brood, the colonies that

made the most brood (i.e. got the biggest) are the ones most at risk of having a high population of varroa. Colonies that swarmed, or didn't take off, or even fought a disease like chalk brood are *less* at risk from high varroa populations, because they didn't consistently have large amounts. You should have good notes indicating cluster size going into winter, but even if you don't, you can see the large circle of food eaten by a large cluster.

If the winter bees have already been infected with viruses, the damage is done. No amount of treatment or varroa drop would bring the colony back.

2. Lots of Honey – Lots of honey means that the colony died fairly early. Colonies with high levels of varroa, they tend to die fairly early in the season (before February), leaving lots of honey behind. Once the bees are stressed and in cluster, the viruses take their toll very quickly. In some cases the colony will even abscond in fall, or be dead before winter really hits.

3. Small cluster – Varroa levels peak right when the winter bees are getting formed. The bees that emerge from varroa infested cells are weakened, and more importantly, are riddled with viruses. Varroa mites are notorious for carrying deformed wing viruses (DWV), but are known to transmit many more. When bees are close tight in a winter cluster, the viruses can spread very quickly.

4. No bees on the bottom board – When a colony starves, the bees just drop to the bottom board, and you end up with a pile of dead bees in the hive. When bees get sick with viruses and other pathogens, however, they often will fly away. Sick bees by nature leave the colony to die in the field, an act designed to prevent pathogen transmission in the colony. When most bees are sick, they either fly away, or are too weak to return after cleansing flights. An early fall illness means that a lot of the bodies probably got removed by workers too.

5. Patch of spotty brood/ Bees dying on emergence – When a colony succumbs to varroa associated viruses or parasitic mite syndrome (PMS), we see a lot of effects in the brood. Unlike American Foulbrood (AFB), which attacks the larvae at one particular stage, PMS will affect developing bees at many stages of development. It is one of the only diseases where you see bees dying right as they emerge.

6. White crystals in the brood – Around the cells where the brood died (the last place of the brood nest), you will often see white crystals stuck to the walls of the cells. These are dry (not suspended in liquid like crystalized honey), and are the crystalized pee of varroa. Varroa mites defecate in the cells, and the resulting guanine crystals are left behind, and visible to the naked eye.

7. No records that varroa was under control. Notice that this says 'varroa was under control', and not that 'the colony was treated'. You may have applied a treatment, but it may have been too little, or (more likely) too late.

Many beekeepers took the extra time to put on a varroa treatment, thinking that they were lucky to get one in. While that treatment could help the bees for next season, it was too late for this winter. September and October treatments would have been applied *after* varroa had gotten to their winter bees. Winter bees are born in the fall, and with their special fat deposits that allow them to live through the winter months, they are the one who carry the colony to the next season. If the winter bees have already been infected with viruses, the damage is done. No amount of treatment or varroa drop would bring the colony back.

varroa in their hives The only way to know that you have varroa under control is to monitor using a sugar roll or an alcohol wash. Just looking at the bees does not work; varroa mites are so sneaky, that you rarely ever see them, unless the infestation is out of control, and it is too late. Many beekeepers say that they never see, so

they don't think that they have a problem. In fact, a varroa infested hive can actually look like it is thriving. Underneath the lovely brood cappings, and away from our view, the mites are reproducing and biting the developing bees. The colony can look fairly healthy until the mites reach a threshold, and the colony succumbs to disease. By the time you see parasitic mite syndrome, or see varroa crawling on bees, it is often too late for that colony (especially if winter is just around the corner). Getting on a schedule of monitoring and managing mites will give you peace of mind that your healthy- looking colony is indeed healthy.

Lots for us to learn that will help us increase our overwintering success so join us:

Our next meeting is Wednesday February 28th at 6 pm in the Newport Library. We will begin the meeting with a half hour of time to socialize followed by a presentation by Max Kuhn and Rick Olson on "Why did my bees die?"

If you have some frames from dead outs that you would like to bring for discussion, please wrap them well in saran or other clear wrap and bring them along

And finally, it is that time again to renew or establish a club membership. The cost of a membership is \$15 for an individual or \$25 for a family. Taking a membership allows us to pay for the expenses of meeting presentations, membership in the Oregon State Beekeepers Association - which provides us with liability insurance, bee research and an annual conference with nationally known researchers and beekeepers – as well as scholarships to participate in the Master Beekeeper program and attend conferences.

First Annual Yachats Honey Lover's Festival

The old adage "Be there or be square" was never truer than it was this past Saturday at the Yachats commons. With club members assisting in the planning, implementation (securing of speakers, booths, etc.), setup, and cleanup – we can give ourselves a hardy pat on the back for a job well done. Special kudos go to our President, Patti Johnson, who carried the majority of the weight for the event which in its first year attracted more than 500 attendees who heard fantastic presentations, tasted a variety of honeys and meads, learned about pollinators and their struggles, found out about beekeeping from our club members, saw a fantastic puppet show about bees and walked away with lots of purchases from the folks there to sell a variety of honeys and bee products, plants and mushrooms.

We had the opportunity, at the club's table, to sell some products to help raise funds that can be donated to OSU's beekeeping research projects at this falls annual Oregon State Beekeepers Conference. Besides the Fire starter cones that club members assisted in dipping in beeswax last month, Becca Fain provided honey, soap and cosmetic honey scrubs which raised a surprising **\$300**. Who would have guessed? Club member, Mark Aiassa also sold his honey, creams and candles and was very pleased with his sales as were all the other folks there with products to sell. One of the tables selling their honey indicated that they sold more than twice what they had anticipated – best case scenario. Sounds like this will be an excellent annual event to assist in promoting beekeeping, our club as well as assist us in raising money for bee research!



Attendees had the “opportunity” to see club members Gaelyn Mathews (above) and Becca Fain dressed up as Bees and other club members, like Pat Wackford (above) in their “cleaned up” beekeeping gear. Our booth attracted loads of folks from the coast interested in bees as well as active beekeepers from as far away as Salt Lake City and southern California. It was a lot of fun to help attendees understand how blackberry honey from different locations along the coast could have different colors, flavors and viscosity. Thank you to: Rick Olson, Becca Fain, Max Kuhn, Mark Aiassa, Gaelyn Mathews, Pat Wackford, Jim Parsons, Anna and Jim Russo, Anne Schatz, Jon Sumpter and Neil Crawford for helping us to make our booth and the event so successful.

Max Kuhn brought his observation hive, which is always a big hit at these events and assisted attendees in understanding the life cycle of honey bees utilizing a video. Kids and adults were grouping around the hive in such numbers that it was decided to move it to a more prominent and spacious location to accommodate the crush.

Mark your calendar now for next year’s event which we hope to expand to 2 days with more honey and mead tastings (standing room only this year), more presenters and displays and more participants!





The Yellow Jackets are coming!

By Ken Ograin



It's not too early to be watching for those yellow jacket queens coming out of hibernation.

If you see those big queens flying around the eaves of your buildings they are looking for food and most likely have already started a nest. I use a butterfly net and a spray bottle of soapy water to take care of them. This is also a good indicator that it is time to put out your traps with the queen attractant. Look for the “Rescue 10 Week” attractant; it comes in a yellow package. Place traps up off the ground. Mine are hung under the eaves. Queens have to do all the work for the first four to five weeks; build comb, feed larva until there is enough for her offspring to take on those duties. Once there are enough workers she will stay in the nest and just lay eggs.

Now is the time to take care of this bee predator, before her children produce in numbers to the extent that they become a problem for your bee’s survival!



Bees in Trees

By Dr. Dewey M. Caron

Are you familiar with the saying ‘Keep the bees out of the trees’? Today we say this referring to keeping bees in boxes in the spring and not having them swarm and cluster in a nearby tree. For centuries however, bees have been kept in trees. Humans were initially hunters/ gathers, which included hunting of wild bee nests, in caves or trees, for honey and beeswax. Some human cultures continue keeping bees in trees today. Forest beekeeping and keeping bee trees in Poland and Belarus has been nominated for listing as a UNESCO Intangible Cultural Heritage of Humanity. It already has the status of a historical and cultural value in Belarus, where the ancient tradition of keeping bees in tree hollows placed high in the trees goes back to 5th-6th centuries and still survives today. There are several interesting bee museums in Eastern Europe that show a wide variety of tree hollows to house bees. This photo shows two bee trees in a museum in Lithuania.



For centuries, bees were often “kept” where they were found and maintained in their selected cavities. When exactly humans sought to locate their bees closer to their residences in man-

made hives at more convenient locations is not known. With Reverend Langstroth's development of the movable comb hive and comb foundation by German beekeeper [Johannes Mehring](#), it became easier to keep honey bees at the convenience to the beekeeper. Langstroth wrote about tree hives in his book **The Hive and the Honey Bee**: "*The Russian and Polish beekeepers have, with great practical sagacity, imitated as closely as possible the conditions under which bees are found to flourish so admirably in a state of nature*". i.e. in tree hollows in trees.

Tree hollows selected by bees for their home are typically smaller and have much thicker walls than a standard beehive, and as such, thought better able to handle the extremes of heat and cold; their small size promotes swarming. Bees in tree hollows do not normally construct their parallel combs to the bottom of the cavity, so there is a debris area at the base of the hollow. It remains moist and comprised of organic nutrients, decaying wood and living organisms. Within this micro-ecosystem, there are beneficial predators and microorganisms such as viruses, bacteria, fungi, even wax moths, that may help the bees remain healthy. Langstroth's original hive design had a debris pit.

Currently Tom Seeley, from his studies of tree bees in Cornell's Arnot Forest, has suggested an Environment of Evolutionary Adaptiveness (EEA – meaning the environment to which a species has become adapted) beekeeping management approach (also termed Darwinian Beekeeping, Apic-centric beekeeping or "natural" beekeeping). Some key managements of "natural" Langstroth hive beekeeping, based on what he has found common to bees living in trees, are;

1. Average is 2.5 colonies per square mile; so we should space colonies as widely as possible.
2. Use small nests; one deep and one shallow; make less honey but have healthier colonies.
3. Use rough cut lumber on inside of hive to increase propolis coating by the bees.
4. Maintain 10% to 20% drone comb, as found in feral tree nests.
5. Keep nest structure and orientation and especially frame position in hive intact; do not reverse boxes in spring. Do not disturb colonies in winter; limit feeding of syrup/pollen.
6. Don't use top entrances; limit bottom opening to 2 inch opening.

So should we seek to keep bees in trees? Lynn Royce, retired OSU Entomologist and bee specialist, has an interesting Tree Hive project (<http://treehivebees.org/>). She is seeking to reproduce the natural ecosystem by modifying modern beekeeping equipment and techniques to mimic the natural tree hive. Her tree hives, located 13 miles SW of Corvallis, are movable frame Langstroth bee hives mounted to a tree on a metal stand, 8-10 feet above the ground. The lower portion includes a "bio chamber" with decaying wood chips for organisms that would also live in hollows with the honey bees. The bees use top and bottom entrances in summer, but the top entrance is closed in winter.



With this project Lynn is showing that the combination of hive placement, box design, and bio chamber provides a system that is good for the bees. In a March 2015 *BEE CULTURE* article, Lynn wrote that bee bread (stored pollen) from tree colonies had approximately twice the amount of fungi, *Aspergillus/Penicillium*, and *A. niger*, as ground colonies (due to unknown factors). A total fungus inoculum of all culturable fungi slowed or inhibited growth of chalkbrood fungus *Ascosphaera apis* in laboratory cultures, thus confirming the beneficial role of these fungi. This suggests that bee bread fungi from tree colonies are more efficient at handling chalkbrood. See full article <http://www.beeculture.com/tree-hive-colonies/>.

One other advantage this hive placement affords the bees and beekeeper is it removes the threat to the colony that bees near to the ground face such as predators like yellow jackets, opossums, raccoons, and skunks. As Lynn explained in an August 2017 OSU Pollinator Health website Podcast <http://blogs.oregonstate.edu/pollinationpodcast/2017/08/14/lynnroyce/> “*Maybe we need to go back to the bee tree and see what we’ve changed that we might be able to get back to the bees that might help them.*”

If you would like to support Lynn Royce’s “Tree Hive Bees” project visit her website at <http://treehivebees.org/>.

C r e a t e an Insect Colony Hotel by Dr. Dewey M. Caron



Interested in a challenge and want to do something to assist pollinators in your yard/ community? Consider building an Insect (bug) Hotel and enter your design in a National “Best of” challenge sponsored by Wildlife Habitat Council (WHC)

<http://www.wildlifehc.org/>. For inspiration and ideas join a free webinar February 28, 2018 1:00 pm – 2:00 pm EST (9 to 10 PST). Webinar will give you the basic knowledge you need to create an easy, inexpensive Insect Hotel. Register:

<https://register.gotowebinar.com/register/1191490561745448194> NOTE: it will still be available for viewing by going to ON DEMAND webinar section of WHC a few days later.

What is an Insect Hotel?

Part art, part habitat, insect (or bug/bee) hotels are an inexpensive, easy and fun way to provide food, shelter, and nesting and hibernation space to all manner of bugs: native bees, lacewings, beetles, ladybugs, wasps and other beneficial insects.

By building an accommodation for bugs you can:

- create interesting, beautiful structures that complement their natural settings
- provide valuable habitat for pollinators and beneficials
- express your artistic talents, resourcing materials already present
- use your creation to register your landscape as conservation property
- develop an inexpensive, low maintenance educational enhancement to your garden

Enter your creation <http://www.wildlifehc.org/insect-hotel-challenge-entry-form/> (you will need to include photos.)

Deadline August 1, 2018. Judging categories include: Best Large Size Hotel, Best Small to Mid-Size Hotel, Best Use of Found Materials and Best Overall Design. Winners will be announced at WHC Conservation Conference, Nov. 13-14 in Baltimore, MD. Need more Info: contact Thelma Redick, WHC: treddick@wildlifehc.org tel: 412.264.3611

2018 Bee Schools available through other bee clubs

2018 Lane County Beekeepers Association Bee School

Bee School is filling up. If you are interested in attending please contact Pam Leavitt for a registration form. pamseaver2000@yahoo.com or by phone 541-344-4228

Date: March 10, 2018, 8:45 am - 5:00 pm

Location: Trinity United Methodist Church, Eugene, OR

Cost: Individual \$40 (includes class book), Couple (2) \$60 (includes 1 class book)

Bee School is a full day of learning. Classes and workshops will cover the first year of keeping honey bees using Langstroth equipment. This is a great class for beginning beekeepers and for those wanting to learn what is involved before becoming a beekeeper.

Note: Warre & Top Bar Hives and Treatment Free Beekeeping are not covered.

2018 Southern Oregon Beekeepers Association Bee School

Guest speakers include Morris Ostrofsky and Jim Smith. Topics to be covered include: Beginning beekeeping equipment, feeding your bees, installing package/nucs, hands-on hive inspections, "Mite Keeping 101", and "reading" your hives throughout the year..

Date: Saturday, April 7th...9:00 - 4:30 pm.

Location: Southern Oregon Research and Extension Center, 569 Hanley Road, Central Point, OR

Fee: \$45.00

After lunch we will be doing hive inspections. If you wish to participate, please bring protective gear. During the lunch hour we also plan to do a "smoker contest". If you have any questions, feel free to contact anyone on the SOBA website for more info...

Shastina Millworks will be on hand to take orders for beekeeping equipment.

<https://www.google.com/search?q=shastina+beekeeping&oq=shastina+beekeeping&aqs=chrome..69i57j69i64l2.12833j0j7&sourceid=chrome&ie=UTF-8>



BEEvent Pollinator Conference

Saturday, March 3, 2018

Linn County Fair & Expo Center, Albany

Cost: \$30

Presentations:

Meeting All the Needs of Pollinators—not just flowers.

How do we help all of them? What research is telling us?

Mason Bees- The Super Pollinators!

How to care for them, what they do for us, their life cycle, and the challenges they face.

Is Your Yard a “Green Desert” to our Native Bees?

Create a sustainable plant community in your yard for our native pollinators that emphasize native plants.

The Linn County Master Gardeners will have cocoons, nest boxes and supplies for Mason Bees and books on related subjects. There will also be door prizes and a raffle with wonderful things to win. For more information and registration:

<http://extension.oregonstate.edu/linn/beeevent>

May 20th—Trifecta Beekeeping Event, Sponsored by Brushy Mountain Bee Farm & BG Bees

Location: Hood River, Oregon

Speakers: Thomas Seeley, Andony Melathopoulos, Alison McAfee

For more information and registration:

<http://bg-bees.com/seeley-melathopoulos-mcafee>

Register by March 31st for early bird registration discount.

This event may fill up quickly so register early if you plan on attending.

This is the official publication of the Central Coast Beekeepers Association (CCBA) for the purposes of informing and educating its membership. Any use of the materials included in this newsletter for other reasons must be approved by the board of CCBA. The information and opinions expressed by the authors in this newsletter are for informational purposes only and are not necessarily endorsed by the Central Coast Beekeepers Association.

To arrange for publication or distribution of this material, please contact the organization through their e-mail account at: www.centralcoastbeekeepers@gmail.com

Rebecca Fain – Newsletter Editor

Board members of the organization, identified below, can also be reached at this address

Co-President – Pat Wackford

Co-President – Patti Johnson

Past President – Rick Olson

Treasurer – Stan Scotton

Secretary – Rebecca Fain

At Large – Kathy Cope

At Large – Gaelyn Matthews

At Large – Jon Sumpter

At Large – Neill Crawford