

The Bee Line

Newsletter of the Oregon State Beekeepers Association

Volume 39 Number 6 July 2014

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OREGON MASTER BEEKEEPER PROGRAM

A Joint Venture of OSBA and the Oregon State University Extension Service info@oregonmasterbeekeeper.org

2013–2014 OVERWINTERING COLONY LOSS SURVEY OF OREGON BEEKEEPERS

Dewey M. Caron and Ramesh Sagili

The Bee Informed Partnership (BIP) has been documenting national honey bee colony losses over the past four years, and prior to that USDA/AIA documented colony losses for three years. The BIP survey pertaining to the 2013–2014 overwintering period reported a colony loss rate of 23.2 percent. This was a 7.3 point decrease from the 2012–2013 overwintering period survey, and a rate notably below the eight-year loss average of 29.6 percent. The national survey included over 7,100 beekeeper responses (95+ percent respondents were small-scale beekeepers), and these beekeepers collectively managed 21.7 percent of the total estimated U.S. colonies.

Parallel with the national surveys, initially Mike Burgett, then Dewey Caron, and now Ramesh Sagili and Dewey have sought to document bee losses incurred by Pacific Northwest commercial beekeepers using a paper survey sent out in late March. Small-scale beekeepers were surveyed by Dewey at regional bee meetings in April. This is a report of colony losses incurred by Oregon beekeepers based on the survey results. Results for the Pacific Northwest survey will be published later.

During the past six years, an average of twenty-five commercial/semi-commercial Oregon beekeepers have returned our mail survey. Twenty-three Oregon beekeepers responded to our 2013–2014 overwintering colony loss survey. During the past seven years, the number of bee colonies managed by respondents has averaged 47,926 colonies. For the 2013–2014 year, our colony representation was slightly above the average at 51,718 colonies. According to NASS, this number represents 83 percent of the total estimated honey bee colonies (62,000) in the state.

The twenty-three commercial beekeepers who returned our surveys had a weighted overwinter colony loss of 21.1 percent. This is slightly higher than the previous winter loss rate of 19.1 percent. Over the past six survey years, the commercial and semi-commercial beekeepers have on average experienced 22.2 percent colony loss. The loss range was from 5.5 percent of fall colony number to 50 percent. Figure 1 compares this season's loss with past loss surveys.

Prior to the appearance of the two honey bee mite parasites, *Acarapis woodi* and *Varroa destructor*, in the mid- to late-1980s, beekeepers typically had winter losses of about 10–15 percent. The introduction of bee mites increased loss rates substantially—a ten-year study (1989–1998) of Pacific Northwest beekeepers by Mike Burgett reported an average annual ten-year loss rate of 22.6 percent among commercial/semi-commercial beekeepers, with rates trending upward over the ten-year period. It seems clear that overwinter losses in the 20+ percent range have been occurring for the past twenty-five years.

Colony losses of 307 small-scale (backyarder) individuals surveyed during this past spring were 48 percent, the highest level in six years of surveying (average for Continued on page 11

MESSAGE FROM THE PRESIDENT



We consume a lot of fruit at our house, and I think this is true for many residents of Oregon. Right now we are in the midst of strawberries, which means my wife Mary is making freezer jam and freezing whole berries while I eat one of my favorites desserts, strawberry shortcake. Later this summer we will be processing other fruits, such as peaches and blueberries, for use later in the year. It is easy to take all this fresh abundance for granted when it is so readily available at the local farmers market or roadside farm stand. We also eat a lot of those almonds imported from California.

Many of these fruits, nuts, and berries are dependent on the honey bees that we supply to the agriculture industry and to the local environment. Our bees have a significant impact on the yields of these crops, which makes them more readily available throughout the country and at a very reasonable cost. Just within the last few weeks, I have seen several news articles warning that we are on the verge of risking the abundance of these items in our food supply, all because of the losses we in our industry have been suffering. In one of the recent articles I read, Dr. Jeff S. Pettis, USDA Agricultural Research Service, Beltsville, Maryland, said, "We truly are at a turning point with just barely enough bees and beekeepers to provide pollination services and I am not exaggerating when I say that we are just one poor weather event or high winter bee loss away from a serious disruption to our food supply."

This places a burden on all of us in the beekeeping industry to make use of every method at our disposal to maintain the health and viability of our bees in order to be able to meet the needs of the agricultural industry we serve. I would say we need to double our efforts, but I know many of us already have.

Take care and stay healthy; meanwhile, I am going to have my strawberry shortcake!

Paul

ODA SUSPENDS LICENSE OF EUGENE COMPANY INVOLVED IN BEE DEATH INCIDENT

June 20, 2014

The Oregon Department of Agriculture has suspended the license of a commercial pesticide operator based in Eugene following an incident that has left an estimated 1,000 bees dead at a north Eugene apartment complex this week. The action taken against Glass Tree Care and Spray Service comes as ODA continues to investigate violation of the Oregon Pesticide Control Law. The company must comply with specific conditions before the license will be reinstated.

ODA's investigation has found that an employee of the company applied a pesticide product containing the active ingredient imidacloprid on the grounds of the apartment complex earlier this week, including seventeen linden trees— the same tree species involved in bee death incidents last year in Oregon. The trees in the Eugene incident were in full bloom and attracting pollinators. Most of the pollinators impacted by the pesticide application were bumblebees. However, some honeybees were also found dead and dying following the application.

Last year, based on the high profile incidents of bee deaths,

ODA adopted a required label statement on pesticide products containing imidacloprid and dinontefuran prohibiting the application of these products on linden trees and other *Tilia* species.

For 2014, labels on these products distributed into Oregon must state the restriction. Products with the old label are still in channels of trade and may be used, but not when plants are in bloom. Applicators using products with the older label are urged to follow the restrictions on the newly revised products. The product used in this case had an older label, which alerts the user that the product is "highly toxic to bees exposed to direct treatment or residues."

Because of ODA's extensive outreach and education regarding pollinator protection over the past year, the department believes that the pesticide applicator should have been aware of pollinator activity and should not have used the product in this case based on the label statement.

Glass Tree Care and Spray Service has been cooperative throughout ODA's investigation.

Additional information about the incident is available at: www.oregon.gov/ODA/PEST/Pages/Pollinator.aspx.

In addition to reporting incidents on that page, ODA provides resources for pollinator protection.

BEE NEWS FROM COFFEE CREEK!

In April, our organization installed three bee colonies at the Coffee Creek Correctional Facility in Wilsonville. Since then, beekeepers and correctional facility personnel, including Bruce Roller, Bunny Cramer, Ann Murray, and Chad Naugle, have helped a group of very enthusiastic participants care for the hives. The new beekeepers were selected from a large pool of applicants based on their excellent performance at the prison and interest in the project. They have enjoyed classroom time and frequent visits to the hives, where each of them performs inspections and records updates in hive-management journals.

Each participant is currently pursuing Apprentice certification in the Washington State Master Beekeeper program. Afterward, many plan to apply to earn the Journey certification in Oregon. Karessa Torgerson is helping to coordinate the certification efforts.

Several news organizations published stories about the program, which led to a number of equipment and literature donations from beekeepers, including Kim Flottum.

We are excited to be a part of the rehabilitation of these inspiring women. If you are interested in helping to expand the program to a prison facility in your part of Oregon, please contact Chad Naugle at: chad.e.naugle@doc.state.or.us.

NATIONAL PESTICIDE CENTER INCREASES MOBILITY

People with questions about using pesticides correctly now can get answers on their smartphones and tablets, thanks to expanded online services offered by the National Pesticide Information Center (NPIC) at Oregon State University.

The center, which operates a national hotline, is growing its fleet of mobile apps, interactive content, video tutorials, and webinars for the medical community and state and federal regulators.

The efforts are funded by a five-year, \$5 million grant from the Environmental Protection Agency. The NPIC has also launched four mobile-friendly apps. The most popular, the Pesticide Education and Search Tool (PEST), offers quick, bulleted information on more than a dozen common pests. The four apps aim to be immediately accessible to users and suggest alternatives to pesticides for common urban pests, like fleas, rodents and bed bugs.

The service also continues to add hundreds of pages and new services to its website, including a ZIP code-driven locator for emergency services. It is also beefing up its presence on Facebook, Twitter, Pinterest, and YouTube. The NPIC's website and mobile apps can be found at: http://npic.orst.edu.

EMERGENCY EXEMPTION FOR USE OF HOPGUARD® II

The Environmental Protection Agency has approved our request to amend the FIFRA Section 18 emergency exemption for use of hop beta acids to control Varroa mites in honey bee colonies during 2014 in Oregon, effective May 29–December 31, 2014. This amendment authorizes use of the new HopGuard formulation, HopGuard II, manufactured by BetaTec Hop Products. Use of the new HopGuard II product reduces the maximum number of applications from six to three. All application directions, restrictions, and precautions on the revised container label as well as all Section 18 use directions submitted with the request must be followed. The EPA approval letter and the Oregon Section 18 use directions label for HopGuard II are posted at: www.orsba.org. The label must be in possession of the user at the time of application.

OSBA WEBSITE

Erin Olmon

The 2014 OSBA website survey has closed and the results are in. In general, people like website. They like the information available and the organization. The responses tell us that people are looking for an authoritative place to go to get information about bees in Oregon. As far as improving the site, the respondents indicated that they would like more information about beekeeping, especially in the form of photos and videos. We received some great ideas for articles and information to add to the site. Thank you everyone who participated in the survey!

WELCOME, NEW AND RENEWING MEMBERS!

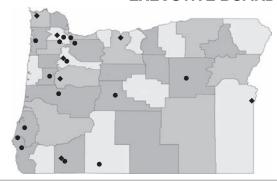
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Chad Naugle
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Oregon State Beekeepers Association

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OSBA REGIONAL ASSOCIATIONS

Cascadia Queen Breeders

Meets quarterly. Contact the secretary for information.

Chair: Paul Maresh

503.283.2060; pmaresh@spiretech.com

Vice Chair: James Hensel Secretary: Alvalea Fong

503.742.0910; mamagoose@mac.com

Treasurer: Rex McIntire

503.720.7958; remcintire 5@msn.com

Central Oregon Beekeepers

Meets 6:30 PM, second Thursday

Partners in Care, 2075 NE Wyatt Ct, Bend

Visit www.orsba.org, Message Board, Central Oregon Branch. For information and meeting details, email:

contact@cobeekeeping.org

Ring Leader: Bindy Beck-Meyer

Bookkeeper: Allen Engle

Website: www.cobeekeeping.org

Coos County Beekeepers

Meets 6:30 PM, third Saturday (except December) Ohlsen Baxter Bldg, 631 Alder St, Myrtle Point **President**: John Gardner—541.572.3847 **Vice President**: Shigeo Oku—541.396.4016 **Secretary**: Bobbie Gardner—541.572.3847

Treasurer: Jane Oku

541.396.4016; janeoku1958@gmail.com

Klamath Basin Beekeepers

Meets 9:00 AM, last Saturday (except Nov/Dec)
OSU Extension, 3328 Vandenberg Rd, Klamath Falls

President: Jim Smith

541.892.5888; tulebee@gmail.com Vice President: Doug Youngberg

dyoungberg@e-isco.com
Secretary: Cathy Vick

541.884.6274; elliott772@aol.com

Treasurer: Steve Vick

541.884.6274; stevevick@aol.com **Website**: www.klamathbeekeepers.org

Lane County Beekeepers

Meets 7:30 PM, third Tuesday, Trinity United Methodist Church, 440 Maxwell Rd, Eugene

President: Katharine Hunt

541.607.0106; keehhunt@gmail.com

Vice President: Pam Leavitt—541.344.4228

Secretary: Jodi Wiktorowski Treasurer: Polly Habliston Website: www.lcbaor.org

Linn-Benton Beekeepers

Meets 6:30 PM, fourth Wednesday, South First

Alternative Co-op Meeting Room, 1007 SE 3rd, Corvallis

President: Linda Zielinski 541.929.4856; Ilz50@peak.org Vice President: Steve Oda

541.745.7227; odafamily1@comcast.net

Secretary: Robert Williams rober2w@gmail.com Treasurer: Suzi Maresh

541.967.9607; sjomaresh@msn.com

Website: www.lbba.us

Oregon South Coast Beekeepers

Meets 6:00 PM, third Wednesday, OSU Extension Office

located at the Fairgrounds in Gold Beach

President: Carla Fletcher Vice President: Jim Sorber Secretary: Wayne Berry berrydogs@gmail.com Treasurer: Barbara Fitts

Portland Metro Beekeepers

Meets 7:00 PM, second Thursday, Clackamas Community

College, Clairmont Hall, Room 118, Oregon City

President: Joe Maresh

503.703.5060; joemaresh@bctonline.com

Vice President: Rex McIntire

503.720.7958; remcintire 5@msn.com

Secretary: Patty Anderson

503.887.7057; wiseacrefarms@me.com

Treasurer: Barb Derkacht

503.631.3063; bderkacht@yahoo.com

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Portland Urban Beekeepers

Meets 6:30 PM, first Wednesday, Calaroga Terrace Rtmt Comm, Terrace Auditorium, 1400 NE Second Ave, Portland. For information, email: officers@

portlandurbanbeekeepers.org

President: Tim Wessels—503.380.9381 president@portlandurbanbeekeepers.org
Vice President: Bill Catherall—503.572.6467 vice-president@portlandurbanbeekeepers.org
Secretary: Mike Card—971.207.9726

secretary@portlandurbanbeekeepers.org **Treasurer**: Keith Gilman—503.830.3178
treasurer@portlandurbanbeekeepers.org **Website**: portlandurbanbeekeepers.org

Southern Oregon Beekeepers

Meets 7:30 PM, first Monday, Southern Oregon

(6:30 PM hands-on demo at SOBA hives thru bee season)

Res & Ext Ctr, 569 Hanley Rd, Central Point

President: John Jacob

541.582.BEES; john@oldsolenterprises.com

Vice President: Ron Padgett

541.592.4678; padgett25@frontiernet.net **Secretary**: Dana Rose—puckamok@yahoo.com

Treasurer: Cheryl Housden—541.955.5146

chousden@earthlink.net

Website: southernoregonbeekeepers.org

facebook.com/SouthernOregonBeekeepersAssociation

Tillamook County Beekeepers

Meets 7:00 PM, second Tuesday (except December),

Fresh Cafe, 9120 5th Street, Bay City **President**: Bob Allen—503.322.3819

Vice President: Jim Fanjoy 503.637.5522; jim@fanjoy.com

Secretary: Jeffrey Hall

503.739.0893; jlh434@mac.com

Treasurer: Stan Scotton

503.232.4945; 4scotton@gmail.com

Tualatin Valley Beekeepers

Meets 7:30 PM, last Tuesday

Cameron Public Svcs Bldg, 155 N First Ave, Hillsboro

President: Mike Van Dyke

503.642.5338; mvand581@gmail.com Vice President: Andrew Schwab 503.538.7545; beesbuzzin@gmail.com

Secretary: Paul Andersen

503.332.5410; paulande@easystreet.net

Treasurer: Jerry Maasdam

503.648.7906; jmaasdam@mac.com

Willamette Valley Beekeepers

Meets 7:00 PM, fourth Monday, Chemeketa Community College, Building 34, Room A, Salem **President**: Richard Farrier—541.327.2673 **Vice President**: Bunny Cramer-Carter

503.703.8546; dbcramer@hotmail.com

Secretary: Mike Rodia

503.364.3275; 46donnakay@gmail.com

Treasurer: Patricia Swenson—pkswenson@gmail.com

REGIONAL NEWS

Regional Representatives

South Coast

Membership forms for OSBA were distributed by the OSBA regional rep, yours truly, to everyone in attendance for renewing and joining. Members were glad to get the forms so conveniently, and others expressed interest in supporting the state organization that can put forth the joined forces in voice and funding in support of beekeepers.

President Carla Fletcher asked for a report on the honey bee colony losses of the past year, eager for an official summary since reports from various areas range all the way from the best in many years to the worst, but the losses reporting deadline was extended a month to get more data. Vice President Jim Sorber reported on catching a swarm that had taken up residence in an outside utility cabinet attached to the house of a couple who were very allergic to bees and had called the exterminator, Bug-e-Boyz, who called me.

From Coos County, Pattie Boice Strain reports that husband Hal's log hive has "thrown" two swarms this spring. He caught both of them, keeping one and giving the other to Pat Reed, who also has a log hive. His has bees coming out the mouth of the carved face, with photos on his website: SolarBeez.com. A swarm arose from the CCBA Apiary and clustered in the middle of the parking lot. John Gardner came to the rescue with his bee vacuum.

Adding term limits to the bylaws for keeping the club dynamic was discussed. There was some favor for one-year term limits for president and vice president, allowing for re-election to the same position after a year "off." The task of changing treasurers, with the legal paperwork involved, made a term limit of one year for that position burdensome. As to the job of secretary, it seemed unreasonable to even consider trying to replace. Elections are held annually.

Website organizer, Tamara Mitchell, has relocated and turned over the task to Mureen Walker and Barbara Fitts, OSCBA treasurer. Barb has uploaded the first document.

Carla Fletcher continues to treat the entire attendance at club meetings with a taste of a particular flavor of honey gathered from select blossoms. I dropped by the Stuck on Honey store in Reedsport and was intrigued by the brassica honey. Little Honey Bee cookies scattered over a plate of daisy cookies, decorated so that the four petals of the flowers matched the two wings of the bees, were the hit of the potluck sharing and networking portion of our meeting. The cookies were made by wife of Wayne Berry, secretary.

—Mween Walker

North Willamette Valley

I will add this one comment and it will probably be in duplicity as others will make the same remark: For me, this has been an almost unprecedented spring/early summer in regards to favorable honey bee weather. Knock on wood, but I predict a very good honey crop for Oregon beekeepers this year. I've noticed a fair amount of swarming this year; I can't say from whose hives they are coming. Last week I packed off four that came within one week at my house, which makes for a total of seven swarms that flew right to my house.

I recently spoke to my cane berry farming relatives and they told me that the winter was severe enough to drastically reduce spotted wing *Drosophila* (vinegar fly) populations. For now, only monitoring is being done, and at least as far as they knew no one has sprayed for the fly and they certainly have not done it themselves. That's really good news for honey bees near cane berries.

-Todd Balsiger

Klamath Basin Beekeepers

Klamath Basin Beekeepers had an educational booth at the Migratory Field Day, held in Klamath Falls, May 10. Katharina Davitt reported that the booth was well received, despite the cold weather. Honey tasting, children's activities, and information about beekeeping in the Klamath Basin were featured.

The May meeting of the Klamath Basin Beekeepers featured two segments. Robert Clements, one of our backyard beekeepers, is presenting a regular segment in each of the meetings. His information is presented from the viewpoint of the amateur, backyard beekeeper, solving beekeeping problems using the tools he has available. This month Robert shared his personal tips and tricks in using a smoker. He uses a pine cone instead of burlap, cotton, or numerous other materials suggested.

The second segment of the meeting was a screening of "More Than Honey." The film documents the seasons of a honey bee and discusses many of the current issues in beekeeping. It is beautifully filmed, has received good reviews, and comes highly recommended. Club members enjoyed the film and took away many thought-provoking ideas and issues in beekeeping.

We will have an educational booth at the June, July, and August Third Thursday celebrations in Klamath Falls. Katharina Davitt will organize the booth. She has organized many resources for use in the booth, including posters, honey sticks, buttons, and coloring books for children. Weather permitting, she will also have an observation hive for viewing.

June heralds summer in the Klamath Basin. This year brings a very dry summer, with limited irrigation, which can affect the "farmed" sources of nectar for the bees. Very little rain in all areas will also affect any natural resources for nectar. Members are keeping a close eye on these resources and planning for summer management with this information. Summer meetings of KBBA will include a field day at the OSU Klamath Basin Research and Learning Center and a BBQ for all members and families.

-Cathy Víck

Lane County Beekeepers

As mentioned last month, Morris Ostrofsky spoke about "Reading Frames" at our club during May. You are able to see his presentation slides and video recording at our website: www.lcbaor.org/Reference.htm. In June, Vice President Pam Leavitt took us on another journey inside the hive looking at "Honey Bee Pests, Pathogens and Diseases." We are so fortunate to have club members who are willing to share their passion for bees.

We started to celebrate Pollinator Week, June 16–22, a little early as we hosted our annual Field Day on June 14. This took place at Jason Rowan's place near Creswell. This was followed by our monthly meeting on Tuesday, June 17.

We will be entering a club display in the Grange section of the Lane County Fair June 23–27. Also we will be helping at the OSBA display during the Oregon State Fair on August 23. Club members have been encouraged to enter products of their hives in both fairs.

Club members have been busy this spring in our community. Jenny Buckley organized an interesting booth at the Wildflower Festival at Mt. Pisgah held May 18. She along with Becca Hale, Maggie Matoba, Max Kuhn, Judy Scher, and Larry Larson shared their interest in beekeeping and promoted our association with those who attended.

Recently, another member was featured in our local newspaper, *The Register-Guard*. On June 1, Jen Hornaday's photo appeared in an article titled "A Bee-Haven Town." She along with Doug Hornaday hosted a booth at Bee-Fest, which was organized by Beyond Toxics on Saturday, May 31. Jen gave out many samples of honey produced by bees in their Healthy Bees-Healthy Gardens program. This was another example of club members sharing their knowledge of bees in the wider community.

-Katharine Hunt

Portland Metro Beekeepers

Our June meeting held a panel discussion on natural/ chemical-free beekeeping. The four panelists each shared their experiences and how they manage their hives. One does not treat or feed his bees. He raises "small cell bees" with the hope that the cell size might impede the growth of Varroa mites. Smaller bees also have a shorter gestation period and may stay one step ahead of the gestation period of the mite. Another panelist treats with the powdered sugar method using the bees' natural grooming behavior to control mites. Still another uses a green drone comb that is replaced four or five times each spring. It is placed in the hive and when full of capped drone it is removed and placed in the freezer killing any mites in the cells. Whatever method is chosen, it is important to consistently test for mites, ensure good nutrition, and keep excellent records!

Our next meeting will be held on July 10 at 7:00 PM. We will feature a discussion on comb honey production and also discuss allergies.

—Patty Anderson

Portland Urban Beekeepers

It has been said that "the happiness of the bee is to exist. For man, it is to know and wonder at it." This quote was made by Jacques Cousteau and set the stage for our monthly meeting focused on "bee science." Experienced beekeepers don't often subscribe to unsubstantiated observations and wild conjecture, but focus on "experience" and "science" when making decisions for their apiaries. With all the sources of bee information out there, it can be tough for new beekeepers to learn how to sort out the truth from fiction or the right way from wrong.

At June's PUB meeting, our featured speaker was Ramesh Sagili, PhD, Department of Horticulture at Oregon State University. Dr. Sagili runs the Honey Bee Lab at OSU. He made a substantial presentation about research currently underway in the Horticulture Department and in particular, what exciting science is going on in the Honey Bee Lab. This overview covered the long-term projects and some of the shorter-term studies, and reminded PUB members why the continued success of the Honey Bee Lab is good for all beekeepers. The current science is certainly fascinating to new and experienced beekeepers. Where else do you get to see a researcher milk a bee of nectar without harming it or watch a bee be taught to associate the scent of coffee with feeding? Yes, the Pavlov technique works on bees, too.

June begins PUBs new fiscal year, and this means it's open-season time. Anyone wanting to join Portland Urban Beekeepers may do so on our website at: www. portlandurbanbeekeepers.org. Our dues are \$18 per year or \$30 for a household. Where else can one get access to speakers like Dewey Caron, Ramesh Sigili, or Jacqueline Freemen for only \$1.50 per month? At the time of this writing, Portland is nearing its peak nectar flow. It's hard to believe that ripe fresh blackberries and juicy tomatoes are only weeks away.

—Michael Carlson

Tillamook County Beekeepers

More and more beekeepers. Tonight we hosted three prospective beekeepers with one of them having been around bees all her life but never actually working them. We discussed our club's participation at the Oregon State Fair OSBA booth with several members wishing to participate. We're hoping to have a few speakers on preparing honey for the honey tasting competition at our July meeting. Stan Scotton and Jim Fanjoy both received notice of a bee tree on Forest Service property on the south slope of Cascade Head that is broken and for safety needs to be partially removed. We discussed removing the bees, and it sounds like it might be more work than it is worth and also dangerous. A few of the club members are looking into it.

Swarming was on everyone's minds as David Downs mentioned collecting half a five-gallon bucket of bees of a swarm from one of his own hives, and six of Scott Eckstein's hives have swarmed with one swarming three times. Terry Fullan donated an unassembled super and five pounds of beeswax for a raffle. Emily Vollmer walked away with the hive, and Bob Allen was the winner of the beeswax.

A general discussion of beekeeping continued with topics such as best time of day and weather to do inspections and how often, the best ways to look for queen cells and identifying the different types, spraying sugar water along with or instead of using smoke, and a general discussion of becoming a beekeeper for our new attendees.

–Jeffrey Hall





KEEPING BEES IN JULY

Karessa Torgerson

What you do in July will have a measurable impact on your colony's chance of winter survival. Bees raised after this month must endure the long, wet winter and still be strong enough raise a new generation early next spring. July is your opportunity to create ideal conditions for development of healthy winter bees!

- ❖ Plan your mite treatment. Monitor mite levels throughout the month so you know whether or not you need to treat. If numbers exceed threshold, don't wait until August to deal with the problem. Many colonies have been lost to Varroa by mid-August in the past. Even if your numbers are low enough to wait, finish treatments no later than August 15 so your that winter bees are raised with minimal exposure to mites and mite-borne disease. If you are trapping for drones, you can continue trapping all the way through July, but be careful not to leave the frames in too long.
- *Watch for Nosema. The "new" Nosema (*Nosema ceranae*) can be a silent killer. It doesn't cause "streaking" like *Nosema apis* did, so your bees can be infected without your knowledge. If you have bees that appear healthy (without distorted wings or black, hairless bodies), yet are crawling on the ground in front of your hive or a hive that is failing to thrive for no immediately apparent reason, send a sample to OSU for testing in mid-July to find out if you need to medicate. Sometimes it can take a while to receive the lab results. Don't procrastinate.
- ❖ Minimize heat stress. Provide plenty of ventilation for warm, moist air to leave the hive. Make sure the bees have a water source. If possible, give your colony afternoon shade during hot days.
- ❖ Watch for robbing. The blackberry bloom ends in mid-July for most of Oregon. This marks the beginning of robbing season. Reduce entrances on weaker colonies, especially if you suspect they are diseased. Marauders from healthy colonies can bring diseases back with the booty.



Avoid spilling syrup or honey near the hives, and keep hives open only as long as necessary. Keep a "robbing screen" on hand in case you need to stop a looting frenzy.

- * Resolve queen problems. Queens are generally not available after the first week of August. It's best to make colonies queenright now so they have time to collect themselves for winter. Recombine hives if necessary, but only if the colonies are not diseased.
- ❖ Assist swarmed colonies if necessary. In terms of summer population, colonies are weakest five-to-six weeks after they have swarmed. Reduce entrances, confirm the new queen is laying well, and combine swarmed colonies with other colonies if necessary. Be ready to feed swarmed colonies in August if they are light on stores.

It's also time to plan for the honey extraction. In most parts of Oregon, colonies don't put much honey away after July. You can remove honey supers at the end of this month without compromising your harvest. This allows you more time and flexibility for preparing the bees for winter.

- ❖ Reserve equipment now. It can be difficult to find available extractors at harvest time.
- Schedule a honey harvest party. Ply your guests with food and drink, and send them home with a jar of honey. They'll never suspect they were your laborers for a day, and the process is much easier with many helping hands.
- ❖ Consolidate your honey supers as July progresses. Rearrange frames if necessary. Your goal is to minimize unprocessed nectar on the frames at harvest time. When you are ready to extract, give frames with uncapped cells a shake while holding them parallel to the ground. If nectar comes out, the frames are too wet to include in the harvest.

From: The Bee Line, July 2013.

Without Chemicals

Lynn Royce

Varroa mites are a serious problem for honey bees. The mites spend time on adult bees and reproduce inside



capped brood cells. There is time during development of the bee pupa for mites to lay eggs that will hatch, grow up, mate and be ready to leave the cell with the young adult bee. In the time it takes a worker bee to emerge (post capping period), the average number of females mites that can develop from a single female is 1.3. The mother mite will also leave the cell. However, if the cell houses a drone there is more time for mite development so an average of 2.6 female mites can emerge. Because of both the mite development and attractiveness of drone brood, the beekeeper can place drone comb into a colony and remove it shortly after capping. These frames of drone brood can then be frozen to kill the mites and the drones, then thawed and replaced in the colony. The bees will clean out the dead drones and mites and the cycle can start over. Care must be taken to remove the drone brood before any drones emerge; otherwise, the mite population will be increased.

OF ALMONDS AND THE BEES

The following exchange, sent by Carlen Jupe, California State Beekeepers Association, began with a request to Eric Mussen for comments on an article pertaining to the almond pollination problems with subsequent bee die-off. The article is at: www. motherjones.com/tom-philpott/2014/04/california-almond-farms-blamed-honeybee-die.

Eric Mussen: The article is based quite heavily on information that I shared with the author. While we are not certain how the bees are getting into trouble, when we ask a bunch of questions, the answers point to what was written in the article.

This year was a very nice year for pollinating almonds. Most every beekeepers' colonies built up in the orchards and some made a bit of honey.

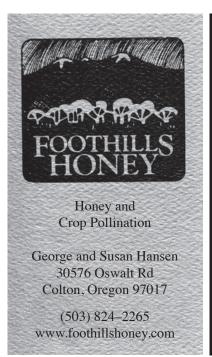
However, when some beekeepers came to the orchards to take their colonies out (at the tail end of almond bloom when no pollination really is taking place), they were shocked. Ten-frame colonies now contained only four-five frames of bees. Dead bees were all over the ground and hive bottom boards. I suspect that was the use of bee-toxic, delayed dormant sprays in some blooming, non-almond orchards.

Secondly, the beekeepers noted that the brood was severely damaged. No young brood was present and the brood that was trying to emerge was not colored as intensively as it should be. Many bees trying to emerge from their cells could not do so. Only their heads were sticking out, tongues extended. That is a typical consequence of exposure to a chitinase inhibitor-type of insect growth regulator. It appears that the combination of Tilt fungicide and Tourismo (two-part insecticide), probably mixed with

an adjuvant, caused serious damage to the brood in some cases.

Seventy-five beekeepers whose colonies suffered these losses met in Los Banos with EPA representatives to discuss the problem. An estimated 80,000 colonies were involved in these losses. Not only were the adult bees lost, but there would be no replacement bees for weeks. Beekeepers cannot tolerate those types of losses early in the year and a number said that they were not coming back to almonds As far as "adjuvants" go, it appears that there is next year. They cannot afford the losses.

Additional Questions: Was the pesticide/fungicide exposure normal or was it higher than normal? Given the drought conditions, is it possible that beekeepers left the colonies in the orchards longer than normal because of lack of good forage elsewhere? The reason I asked these questions is that a local beekeeper had mentioned that he had left hives in the orchard because he had a hard time finding



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a location with good forage to relocate the bees. The beekeeper stated that normally he would have moved his hives to the coastal region but there is almost no forage on his normal sites; he waited to move the bees until he found a suitable location in the Sierra Nevadas.

one that seems to be much more problematic, the name ends with 'silcon, I can't remember the full name. I could not find the item in question on the OMRI-approved material list for organic. I want to make sure we are not using any materials that may potentially harm the bees.

I am wondering if warmer than normal temperatures and drought caused bees to find water from nontraditional sources and perhaps were unable to maintain hive temperature due to lack of water. Is it possible that bees may have been sourcing water from drip irrigation whereas nitrogen or other materials are being applied with irrigation water? Is it possible that bees in the high die-off areas sourced water that may have been contaminated, such as spray rigs or hoses used for mixing or applying pesticide/fungicide?

Eric Mussen: The exposure to the adult-killing insecticide could have happened any year. Delayed dormant sprays can be very problematic. I believe they found Furadan in the dead bee samples (after almond pollination this year).

Beekeepers might hang around the orchards for two reasons: nowhere to go or because the grower wishes to see the bees, for which he has paid substantial money, stay in the orchard until the last



petal falls from the last blossom – there might be one last nut to set! This thinking is more prevalent than you might think and leads to a lot of bee problems.

The "organosilicone" adjuvants are the most effective in doing their job, but they may be too good for the sake of the bees.

Beekeepers have told me that things are worse the further west you go. It tends to be drier. And, no, we do not know where the bees went to get water. As more and more growers use something like drip irrigation to conserve water, they also tend to "chemigate" through the systems. If the systems are not perfectly intact, water and whatever else is in it becomes available to the bees. We saw the results of that on watermelon chemigated with imidacloprid. There was immediate damage and a surprisingly long period that could be described as "suspended animation" after the colonies were placed on fresh, clean food sources.

2014 NATIONAL 4-H ESSAY CONTEST

For the 2014 essay contest, the topic was Beekeeping in Colonial Times. To the earliest European settlers in the New World, honey bees were an important part of their existence. Cargo manifests show that honey bees were among the first shipments of animals. How were they shipped? Why were they important? Why were they so important to the colonists? How does that differ from today?

In early April, three winners were chosen to be the National best from the over 20 applications submitted. In first place was Hannah Falcone from Plainfield, New Hampshire with her essay entitled "Honey Bees: Colonizing the New World." Second place went to Garret Smith from Starkville, Mississippi with his essay entitled "Beekeeping in Colonial Times." In third place was Hailey Ordal, from Medford, Oregon with her essay entitled "This Land of Milk and Honey: How the Honey Bee Shaped America."

The Foundation for the Preservation of Honey Bees, Inc. is proud to provide these talented 4-H essay winners with a monetary prize and the opportunity to have each paper published in the upcoming issues of the *American Beekeeping Federation Newsletter*.

Congratulations to all who submitted 4-H essays this year and especially to our National 4-H contest winners, Hannah, Graham and Hailey.

Overwinter Losses—Continued from page 1

the previous five years was 22 percent). Thirty-eight percent of backyard beekeepers reported 100 percent survivorship (no losses), but sadly 78 percent of backyarders lost 50 percent or more of their fall numbers. Colony loss for 86 percent of individuals was one, two, or three colonies. Compared to all the past survey years, the backyard beekeeper group has had the highest level of losses this past winter (2013–2014). Last year loss level was 42 percent.



In addition to the question regarding overwinter losses, Oregon beekeepers were asked to provide an estimate of an acceptable loss level. Among commercial and semi-commercial respondents, the median acceptable loss was 12–15 percent (range 5–25 percent), and among backyard beekeepers it was 15 percent (range 0–67 percent). In national surveys, 15 percent loss was indicated as an acceptable loss level.

Participating beekeepers were further asked to speculate on the reason(s) for their colony losses. Most of the beekeepers listed more than one reason. In the 2014 survey, ten (of twenty-three) commercial/semi-commercial respondents said queen failure (22 percent of total listings) was the major factor in colony losses. Six said Varroa mites and starvation (both 13 percent of total listings) were the next most likely factors listed for at least

some of their losses. These three choices were followed by poor overwintering (11 percent of total listing), weak colonies and CCD (both accounting for 9 percent of total listings). Nosema, don't know; pesticides and viruses were all under 7 percent. Small-scale beekeepers also listed queen failure (constitutes 21 percent of total listings), but it was second on the list after the option "colonies weak in the fall" (24 percent). Poor wintering and Varroa were listed nearly equally (15 percent) by backyard beekeepers. Pesticides and CCD were infrequently listed by backyard beekeepers (<5 percent of total listings) as reasons for their colony loss. A few of these respondents listed other factors, including virus, failure of chemical treatment, and yellowjackets as reasons for colony loss.

What does the most recent survey tell us? Oregon commercial and semi-commercial beekeepers continue to lose one in five colonies over the winter months. Oregon (and Pacific Northwest) commercial and semi-commercial beekeepers have experienced less than half the level of loss

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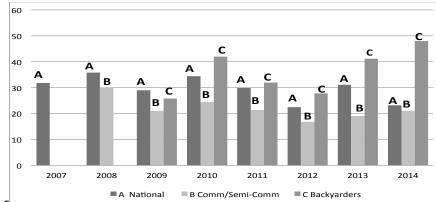


Figure 1. A. National bee losses (2007 = 31.8%, 2008 = 35.8%, 2009 = 29%, 2010 = 34.4%, 2011 = 29.9%, 2012 = 22.5%, 2013 = 31.1%, and 2014 = 23.2%. B. Seven-year summary, commercial and semi-commercial Oregon beekeepers (number of respondents; number colonies): 2008 (n = 25; 62,100 colonies) lost 30%; 2009 (n = 34; 39,252 colonies) lost 21%; 2010 (n = 29; 37,138 colonies) lost 24.5%; 2011 (n = 25; 57,022 colonies) lost 21.4%; 2012 (n = 20; 40,359 colonies) lost 16.8%; 2013 (n = 20; 52,324 colonies) lost 19.1%; 2014 (n = 23; 51,718 colonies) lost 21.1%. C. Six-year summary small-scale Oregon beekeepers, with Oregon/Washington in 2010 (number of respondents; loss): 2009 (n = 100; 25.8%), 2010 (n = 125; 42%), 2011 (n= 102; 32%), 2012 (n = 125; 27.8%), 2013 (n = 156; 41.2%), and 2014 (n = 309; 48%).

incurred by small-scale beekeepers. Oregon commercial beekeepers loss rate was were very similar to the national loss level this year. In the previous surveys, their losses were lower (approximately 8–10 points) than the national survey. Current losses are similar in magnitude to the losses reported by Burgett for Pacific Northwest beekeepers during the years from the mid-1980s to the mid-1990s when beekeepers were first dealing with newly introduced mite problems.

Smaller-scale beekeepers continue to experience heavy colony losses. The reasons small-scale beekeepers have twice the losses compared to commercial beekeepers (with semi-commercial beekeepers intermediate in loss level) are not evident from survey responses. Management differences and efforts to rescue colonies and the practice of not managing weaker colonies by larger-scale beekeepers are likely factors for these differences in loss rates. Virtually all large-scale beekeepers reported that they would make up losses via splitting of successfully overwintered colonies to replace their losses. Smaller-scale beekeepers are either giving up in the face of heavy losses or starting over with package bees, by purchasing nucs, and/or capturing swarms.

It appears that evolving management practices have allowed the Oregon beekeeping industry to maintain sufficient colony numbers to service bee colony pollination requirements, including California almonds. Almond and tree fruit rentals constitute over 67 percent of commercial beekeepers income, though another dozen crop rentals contribute as well. Pollination rental income continues to be significant, representing over three-fourths of total

commercial income (50 percent for sideliners, those with 50 to 500 colonies) for the year.

A SPECIAL THANK YOU to all of you who returned our 2013–2014 winter loss survey and/or participated in the national Bee Informed Partnership survey.

BEEKEEPING IN "BEE-COPALYPSE"

Katharine Hunt

I had the chance to hear George Hansen of Foothills Honey Company speak on this topic of "Beekeeping in 'Bee-Copalypse"



George Hansen makes a point during a in the Pollinators and presentation at the University of Oregon Industrial Agriculture conference.

Accommodation at Doubletree by

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at the University of Oregon's 32nd annual Public Interest Environmental Law Conference, February 28. George, who is past president of American Beekeeping Federation, took part in the Pollinators and Industrial Agriculture panel. There were

three others on the panel discussing not only bees but also birds, butterflies, and wild and native pollinators and how there are many factors contributing to the observed decline of some of the species. They noted that causes included habitat loss, pesticides, pests, pathogens, nutrition, climate change, groundwater depletion, drought, human development, and altered fire patterns. George noted that beekeepers have to replace 30 percent loss each year and re-new queens often. He also noted that mono crops and loss of traditional beekeeping regions, changes in agriculture, and spraying practices are all contributors to the plight of the pollinators.

HONEY SHOW AT THE FAIR

Reminder to Mark the Dates!

The deadline for entering products in the Honey Show at the Oregon State Fair, which is to be done online, is August 7. Entries are accepted at the 2014

we might call this a year of never-ending swarm season?

Fairgrounds on August 9 and 10, NOON—8 PM, and at off-site locations. See details at:

http://oregonstatefair.org/wp-content/uploads/2014/05/2014-Honey-Products-of-the-Hive-515.pdf

The fair runs from August 23 through September 1 this year.

HONEY & PRODUCTS OF THE HIVE DEPARTMENT



EXHIBITOR HANDBOOK
AUGUST 22 – SEPTEMBER 1, 2014
Enter online through Thuruday, August 7, 2014

Image on page 1 was sent by Mureen Walker. Perhaps

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Grandfather's Bee Conference!

WESTERN APICULTURAL SOCIETY Sept 17-20, 2014



Sept 17 2nd International Workshop on Hive & Bee Monitoring

Sept 17-20 WAS Conference - Updates on Research, Management,

Bee Friendly Plants, Everything Honey, and More

Sept 18 Kyra Jean Williams Farm to College Fall 'Feastival' with dinner on the Oval (evening)

Sept 18-19 Main Conference Presentations & Trade Show

Sept 10-19 main conference Presentations & Trade Show

See missoulaedgewater.doubletree.com Sept 19 Banquet

Sept 20 Workshops - Candle Making to Queen Breeding (a.m.)

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or email Dr. Jerry Bromenshenk WASpresident2014@gmail.com

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UPCOMING EVENTS

July 28-August 1: Eastern Apiculture Society Conference. Visit: www.easternapiculture.com/conferences/eas-2014.html

August 2–3: Western Treatment-Free Conference. Visit: www.blisshoneybees.org/2014conference.html

August: Classes available from Bee Girl. For information or to register, visit: www.beegirl.org

August 23-September 1: Oregon State Fair. Salem.

September 17–20: Western Apiculture Society Conference. For information, visit: ucanr.edu/sites/was2/Conference_Information/Conference_Details/

November 6-8: OSBA Fall Conference, Seaside.

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Oregon State Beekeepers Association Membership Form

The **Oregon State Beekeepers Association** is a nonprofit organization representing and supporting all who have an interest in honey bees and beekeeping. Membership is open to anyone with an interest in bees and beekeeping. You do not need to own bees or reside in Oregon to join. Membership includes the ongoing work of the organization on behalf of the honey bee and beekeeping, a vote in OSBA elections, discounts on publications, placement on the swarm call list, three free ads on the website, and an annual directory and subscription to *The Bee Line*. For new memberships and renewals, please send check made payable to *OSBA* with this *completed* form to:

Lynn Royce, 30807 Decker Ridge Rd, Corvallis OR 97333

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The Bee Line is the official publication of the Oregon State Beekeepers Association. Annual subscriptions to the newsletter are included with each membership in OSBA.

Please send news about your bees and your experiences in keeping them, as well as events, corrections, comments, questions, photographs and stories (both from "old" times and "new"), interviews, recipes, and points of view to: Rosanna Mattingly, *The Bee Line*, 4207 SE Woodstock Blvd Ste 517, Portland OR 97206; email: osba.newsletter@gmail. com. It's your newsletter—we want to hear from you!

The next issue to be printed will be the August 2014 issue. The deadline for submitting copy is July 10, 2014.

Thank you!

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