The Bee Line

Newsletter of the Oregon State Beekeepers Association

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October 2020

IN THIS ISSUE . . .

orsba.org
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Oregon Master Beekeeper Program
A Joint Venture of OSBA and the Oregon State University Extension Service
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Image above: A lovely planting for pollinators, for which guidance and resources for a variety of plantings appear on pages 5 and 7. Additional pollinator habitat can be viewed on page 4. This landscape, too, nourishes pollinators, though it comprises wildflowers that came up following a burn.

2020 Fall Conference, pages 10–11.

HOW WILL THE 2020 FIRES IMPACT OREGON'S BEES?

Andony Melathopoulos

As I write this article, the state is ablaze. We are facing the worst series of fires in the state's history. And it seemed to come out of nowhere. It was nice on Labor Day, and then the smoke appeared. The skies are now the most foreboding shade of red. Thousands of people have been evacuated from their homes or are nervously waiting for a call to evacuate. On Instagram I just saw Tom Cinquini, wearing a huge mask, driving some kind of tractor to build a fireline to protect a beekeeper's home and hives. If 2020 couldn't get any worse, it has.

In the midst of this all, Dr. Sagili and I are getting a whole host of calls wondering what effects these fires have on bees. People are noticing, for example, that bees just aren't flying, and they wonder why. They worry that colonies will be choked by the smoke. They want to know that, in spite of all the mayhem and loss, will, at least, the bees be okay.

In this article I will cover what is known about the effect of forest fires on bees, how bees respond to the forests ravaged by fire, and what to tell homeowners who want to help bees while also protecting their property from future fires.

1. **Honey Bee Colonies**. I am not sure people realize how disruptive this fire will be for the state's honey bee colonies. I shudder to think how many apiaries are going to be consumed by the advancing flames. If you recall, 10,000 colonies were lost to the massive brush fires in New South Wales, Australia, in 2019–2020. Fire can quickly turn a colony into an ash pile. But even if colonies survive, people are going to struggle to get to their apiaries ready for winter. I am anticipating there are going to be some light colonies going into winter. So, once it's safe to venture outside again, make sure to get your syrup flowing. Focus on getting colony weight up for winter.

2. **Wild Bee Nests**. By now, most of the state's native bees have completed their reproduction and are hunkering down in nests for winter. As some of you might know, about 70 percent of our bee species nest in underground chambers. While soil temperatures can be very hot directly at the surface of a fire, they can fall to normal temperatures just 4 inches down. Although we don't exactly know the average depth our bees nest at in Oregon, a global survey estimated that over 75 percent put their young in chambers deeper than 4 inches. So, most of these bees won't even notice the fire. But around 30 percent of our bee fauna nest above ground in twigs and stems, including small carpenter bees, mason bees, and leafcutting bees. Nests of these bees that are not directly burned will likely overheat and die. Research by the OSU Forest Animal Ecology Lab, for example, noticed conspicuous absence of typically common stem-nesting small carpenter bees 4 years after the big Douglas Complex Fires in southern Oregon.

3. Smoke on Bee Behavior and Physiology. Two Home Horticulture faculty emailed me yesterday, and both were getting questions from the public about why bees seemed to stop visiting their flowers after the smoke rolled in. A group studying the qualities

Continued on page 4

Oregon State Beekeepers Association

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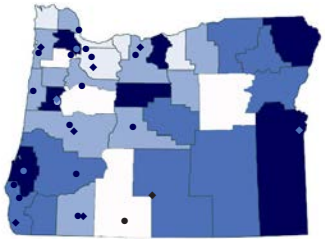

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Central Coast Beekeepers
Meets 6:00 PM, fourth Wednesday, Newport
President: Becca Fain—rfain18@gmail.com
Website: www.ccbaor.org

Central Oregon Beekeepers
Meets 6:00–7:30 PM, fourth Tuesday, Bend
President: Allen Engle—aengle@bendbroadband.com
Website: www.cobeekeeping.org

Columbia County Oregon Beekeepers
Meets 6:00 PM, first Thursday, Deer Island
President: Linda Zahl—503.799.7073
Facebook Page: ColumbiaCountyOregonBeekeepers

Columbia Gorge Beekeepers
Meets 6:15–8:15 PM, third Wednesday, Hood River
President: Jerry Frazier—jerry1.frazier@gmail.com
Website: gorgebeekeepers.org

Coos County Beekeepers
Meets 6:30 PM, third Saturday, Myrtle Point
President: Randy Sturgill—541.430.4095; randys@rfpco.com

Douglas County Bees
Meets 7:00–8:30 PM, first Wednesday, Roseburg
President: Jack Reilly—douglascountybees@gmail.com
Website: www.douglascountybees.org

Klamath Basin Beekeepers
Meets 9:00 AM, third/fourth Saturday, Klamath Falls
President: Paul Davitt—president@klamathbeekeepers.org
Website: www.klamathbeekeepers.org

Lane County Beekeepers
Meets 7:30 PM, third Tuesday, Eugene
President: Mike France—michaelj62@gmail.com
Website: www.lcbaor.org

Linn Benton Beekeepers
Meets 6:30 PM, third Wednesday, Corvallis
President: Everett Kaser—everett@lbba.us
Website: www.lbba.us

Oregon Prison Beekeepers
Program Manager: Chad.E.Naugle@doc.state.or.us

Oregon South Coast Beekeepers
Meets 6:00 PM, third Tuesday, Gold Beach
President: Jesse Fletcher—jesse.l.fletcher@gmail.com

Portland Metro Beekeepers
Meets 7:00 PM, second Thursday, Gladstone
President: Doug Sieckmann— 503.804.5417
Website: portlandmetrobeekeepers.org

Portland Urban Beekeepers
Meets 7:00–9:00 PM, first Wednesday, Portland
President: Cheryl Wright—cwright80@hotmail.com
Website: portlandurbanbeekeepers.org

Southern Oregon Beekeepers
Meets 6:30–9:00 PM, first Monday, Central Point
President: Risa Halpin—rhalpin906@gmail.com
Website: southernoregonbeekeepers.org

Tillamook Beekeepers
Meets 6:30–8:00 PM, second Tuesday, Tillamook
President: Brad York—dbradleyyork@gmail.com
Website: www.tillamookbeekeepers.org.

Tualatin Valley Beekeepers
Meets 6:00 PM, last Tuesday, North Plains
President: Debby Garman—debbygarman@gmail.com
Website: tvbabees.org

Willamette Valley Beekeepers
Meets 7:00 PM, fourth Monday, Salem
President: Richard Farrier—rfarrierfarms@gmail.com
Website: wvbahive.org

MESSAGE FROM THE PRESIDENT

2020, What Next?

To say that 2020 has been a challenge would be the understatement of the century. As I sit down to write this message on September 10, the sun is completely blocked out by a thick pall of eye-watering smoke and temperatures have been hovering in the triple-digit range for weeks. By all appearances, the world is on fire, at least most of the West Coast, and it feels like hell on earth. Here in the Rogue Valley, there has been mass destruction and evacuations with wildfires raging up the I-5 corridor from Ashland through the middle of Talent, Phoenix, Medford, and Central Point. It is absolutely surreal. The term *wildfire* normally conjures images of forests burning, not a conflagration skipping at will from town to town leaving a wake of carnage and destruction. Just to keep it interesting, we are also completely surrounded by actual forest fires in every direction, all with little to no containment. My heart goes out to all who have lost loved ones and everything they own.

Many people are displaced already, and all of Jackson County is on Level One or higher evacuation notice. All of this is happening in the context of a global pandemic, economic uncertainty, and deeply divided society full of vitriol and hate. Lies and rumors are the only things spreading faster than the wildfire and the virus. Conspiracy theories abound, and science deniers eagerly spread them with reckless abandon. In the previous century, well before the Internet age, it was often said that a lie could travel halfway around the world before the truth even gets its pants on. Social media has only exacerbated this. Now misinformation and propaganda can travel the globe in seconds. Humans could take a lesson from the bees in the department of utilizing and acting on only good information.

Humans have been around for about 200,000 years; bees have been around for about 130,000,000 years. To put that into perspective, humans have been around roughly 0.15 percent as long as bees. Bees are amazingly successful organisms that all human life depends upon. Like honey bees, humans are social creatures, and we would be well served to learn from them if we would like to persist as long as they have. Honey bees have been so successful because they work together and share good information, such as the locations of the best food sources, which flowers have the sweetest nectar, time for a new queen, and time for more space. Clearly, a successful flow of unbiased good verifiable information is crucial for colony survival. The same is true for humans. We have a great tool for this. It's called *science*. A big problem we humans have is that science often tells us things that are inconvenient to our short-term goals and many of us choose not to act or continue to make poor selfish choices because of greed or personal agendas. People do not like to be told they are wrong and often ignore good information that is imperative to the survival of our species, totally unlike honey bees.

Another aspect of honey bee biology that we humans would be well served to emulate is working together. An individual honey bee makes at most 1/12th of a teaspoon of honey or .00125 pounds, a rather paltry, insignificant achievement. However, by working together, a decent colony with great management in a good location can often make 100 pounds or more. This is a great example of how a collective effort can result in great achievements. Humans are no different. Mankind's greatest achievements occur when large numbers of us work together and share good information and effort. Modern agriculture, our transportation systems, modern medicine, a man on the moon, cell phones, the Internet, all of these things would not happen without a significant amount of cooperation. The sword of cooperation cuts both ways. We can be an incredibly destructive organism when we operate with bad information and ignore science.

Perhaps the most inspirational aspect of honey bee biology is altruistic behavior. Altruism, simply put, is behavior that benefits others at one's own expense. Humans could learn a lot from bees here. Individual bees are perfectly willing to give their lives for the greater good of the colony. The honey bee that just stung me in the forehead needed absolutely no goading or reward from her colleagues to give her life in defense of the colony. How best can humans emulate this type of behavior? There are some simple answers and some complex answers to this question. We need to act on and deploy the simple answers en masse and immediately. This includes things like volunteering, donating, mentoring, and getting involved locally. There are so many people in need right now. We really need to pull together, or things will get much worse before they get better. The virus will persist as long as mass sectors of our society do not have proper medical care. Disasters like fires and floods will become more frequent and bigger if we do not acknowledge the climate is changing faster than we are. Misinformation will spread like wildfire and bad choices will be made unless we deploy tools like science and open our minds enough to let go of, or question, some of our beliefs. I think doubling down on education will go a long way to putting us on a better path as long as we are not leaving anyone behind and are teaching the skills that enable the amazing human capacity for discovery.

Long story short, we can successfully address the crisis we face only by being more like the honey bee. We need to work together, strive to acquire and share only good information, and get involved by giving our time and resources. Speaking of giving, GloryBee has agreed once again to match up to the first $10,000 we raise for research during our virtual

conference that starts at the end of the month. I hope this amazing act of generosity inspires many to donate and bid in our online auction. If you have auction items to donate, please contact Charlie Vanden Huevel at charlie.bgbees@gmail.com to make the arrangements. There is no problem we cannot solve if we work together, donate our time and resources, and have good information to act on. It is more important than ever that we continue to support research so that we can generate good actionable information on which to base decisions. Looking forward to seeing you all there. And remember, be like the honey bee. *John Jacob*

2020 Fires—*Continued from page 1*

of light in forest fire haze think they have the answer. All insects, including bees, use the pattern of polarized light in the sky as a kind of compass to know where they are going. This pattern is maintained even when it's cloudy. But apparently this pattern gets very distorted once that red haze sets in. The red color is how we perceive the effect of light striking the tiny smoke particles suspended in the air. For bees and other insects, the effect is much more disruptive to their ability to orient. Essentially, the strength of the polarization "compass" that bees use not only gets weaker but also points the bees in a different direction than normal. Getting to a flower gets to be a very hard task.

In addition, the ash itself may interfere with the ability of bees to breathe, smell, and taste, as well as have other effects on their physiology. Although there is very little research on these effects, one group of researchers observed that, when they exposed butterflies to simulated smoke conditions, the ash particles didn't work their way into the butterfly respiratory system, but they nonetheless reduced the survival and growth rate of caterpillars. They interpret these results to mean that the ash isn't interfering with breathing as much as it is poisoning the larvae as they consume the toxic material contained in the ash.

4. **Post Wildfire Effects**. Okay. But there is a bright spot in all this gloom. Very few bees live in closed canopy forests. For this reason, bee diversity and abundance typically increase in the years following a fire. Think of it: There is a huge flush of flowering forbs and shrubs that puts thousands of acres of new bee food in the landscape in the span of a few years. This was certainly the case following the massive 2013 Douglas Complex Fires in southern Oregon. As I alluded to earlier, the OSU Forest Animal Ecology Lab surveyed these burned areas after 4 and 5 years following the fire. Remarkably, they found that, in areas where the fire was most severe, bee abundance and species richness were the highest. One reason for this boost was undoubtedly caused by the fact that the diversity of the flowering plant community that supported these bees was also enhanced by high-intensity fires. Their work suggests that periodic forest fires are part of a regular pattern of success of bee communities across the state.

5. "**How Can I Help?**" As I mentioned in the July 2020 article, beekeepers are in a great position to advise people who are interested in bees. After the clean-up. After things return to some semblance of normality, it's time to remind people that when landscaping for bees to do so in a way that is "fire safe." That means if people live in fire-prone areas they should practice fire-resistant landscaping—using plants that feed bees but that do not add to the fuel load and putting the plants in locations that help maintain a defensible space around their home. Direct them to OSU Extension's great publication on selecting fire-resistant plants that also help pollinators:

> Detweiler, A.J. and Fitzgerald, S.A., 2006. *Fire-resistant plants for home landscapes: Selecting plants that may reduce your risk from wildfire.* OSU Extension Catalogue PNW 590.

Stay safe everyone. Together, we will all get through this.

Attention Commercial Beekeepers!

You're invited to the
2020 Commercial Beekeeper Workshop

Understanding Transportation Compliance

with Dave Gaffney of Papé Group

An inside look at overall DOT requirements, new regulations, and liability considerations.

Friday, **October 23, 2020, 10 AM**, online

Interested? For more information, email:
carolyn.breece@oregonstate.edu.

NRCS Programs to Support Pollinator Habitat Enhancement

Annie Young-Mathews

I was honored to be invited to speak at the OSBA fall meeting in Florence, and really enjoyed the presentations by other panelists and the great questions from the audience following the presentations. For those who may have missed the session, I'll do my best here to recap some of the information covered.

As beekeepers, I'm sure you all understand the importance of pollinators and the many threats currently facing honey bee populations in the US, and hopefully you are also aware that many native bee populations are similarly imperiled. For native bees and other native pollinators, loss of quality habitat for foraging and nesting (in the ground or in hollow twigs and cavities) is one of the major causes of their decline. The Natural Resources Conservation Service (NRCS) and other groups see an opportunity to help mitigate this problem on a large scale by installing and/or enhancing pollinator habitat on private working lands (farms, orchards, ranches, and woodlands) throughout the US. USDA has several different Farm Bill-funded programs that offer financial cost share assistance to private landowners/managers who wish to implement pollinator enhancement practices on their land. The programs include the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Conservation Reserve Enhancement Program (CREP), and Agricultural Conservation Easement Program (ACEP), each described below.

In Oregon, NRCS administers EQIP funding through a strategic approach to conservation, with locally directed funding pools generally in place for 3–5 years for a specific geographical area to address a particular resource concern. While pollinator habitat is not often the primary focus of these strategies, it can be included as a secondary resource concern. However, there are currently two strategies, one in Hood River/Wasco Counties and another in Polk County, with a specific focus on pollinator habitat enhancement. Practices can include hedgerows, cover crops, beetle banks, pollinator pasture/meadow plantings, and more. There is an interactive map on the NRCS Oregon website that shows what funding pools are available in each county: nrcs.maps.arcgis.com/apps/MapSeries/index.html?appid=a7e88f3183584df985133dfaf1a30368.

Additionally, there are EQIP funds available throughout the state for the Organic Initiative to assist with many pollinator enhancement practices on land that is certified organic or transitioning to organic: www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/financial/eqip/?cid=nrcseprd398833.

CSP offers participants a 5-year contract to earn modest annual payments ($1,500 minimum) to maintain existing conservation systems and adopt additional enhancements to address priority resource concerns, such as installing pollinator habitat like hedgerows or meadows and extending buffer areas. More info on CSP is available here: www.nrcs.usda.gov/wps/portal/nrcs/main/or/programs/financial/csp.

CREP is part of the Conservation Reserve Program run by the Farm Service Agency (FSA) and jointly funded by the Oregon Watershed Enhancement Board (OWEB). It provides restoration funds and annual rental payments to take agricultural land (generally marginal pasture/range land) out of production to restore degraded riparian zones and wetlands by planting native trees and shrubs, which can include diverse flowering species that provide forage for pollinators. More info on CREP is available here: www.oregon.gov/oweb/grants/Pages/crep.aspx | www.fsa.usda.gov/programs-and-services/conservation-programs/conservation-reserve-enhancement/index.


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The Wetland Reserve Easement (WRE) program is part of ACEP and helps protect, restore and enhance wetlands through conservation easements. Restoration plantings can include diverse native flowering forbs in wet meadows and shrubs/trees in riparian areas to support habitat for a host of wildlife, including pollinators: www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/easements/acep/?cid=nrcseprd1295224.

In addition to financial assistance, NRCS offers technical assistance for designing and installing these pollinator enhancement conservation practices. For the last decade, the NRCS Plant Materials Center in Corvallis has been conducting trials on pollinator habitat establishment, maintenance, and visitation by native pollinators. Information gathered from these trials has been compiled into technical notes and other publications for use by landowners and restoration practitioners (see links below). Here are a few important items to consider:

- For installing new pollinator habitat from seed (particularly perennials), proper site preparation is extremely important, and can mean the difference between failure and success. Existing perennial vegetation must be completely killed/removed and the weed seed bank should be addressed. This may take a year (or up to 3 years) depending on site history.

- Make sure you're selecting the right plants for the right place (sun exposure, moisture, soil type, etc.). Native plants have evolved with the local climate, soils, and fauna and will often establish more easily and require less long-term maintenance than non-natives while supporting local wildlife species.

- Aim for season-long bloom of pollen and nectar resources, ideally with at least 3 species blooming from early season through mid- and late season.

- Choose plants with a diverse array of flower colors and shapes to attract a wider diversity of pollinator species.

- Most pollinator habitat will require some on-going maintenance for successful establishment and persistence (e.g., watering shrubs/trees at least the first year to get established, mowing or other weed control, and so forth).

Plant Materials Information

How to Choose a Good Pollinator Seed Mix. A. Bartow, USDA-NRCS, Corvallis, OR. 2019. 4 pp. www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmcbr13465.pdf.

Plants for Pollinators in Oregon. Plant Materials Technical Note No. 13. USDA-NRCS, Portland, OR. 2008. 44 pp. www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_041919.pdf.

Plants for Pollinators in the Inland Northwest. Biology Technical Note No. 24. USDA-NRCS, Spokane, WA and Boise, ID. Revised 2013. 62 pp. www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/wapmctn11733.pdf.

Enhancements for Native Bees in Western Oregon and Washington Cranberry Production. Plant Materials Technical Note No. 42. USDA-NRCS, Portland, OR. 2017. 20 pp. www.nrcs.usda.gov/Internet/FSE_PLANTMATERIALS/publications/orpmstn13176.pdf.

USDA PLANTS Database. Contains distribution information and Plant Fact Sheets or Plant Guides for many pollinator plants around the country. Searchable by scientific name and common name. plants.usda.gov/java.

Xerces Society Guides for NRCS Practices

Hedgerow Planting (422) for Pollinators: Western Oregon & Washington Specification and Implementation Requirements. The Xerces Society for Invertebrate Conservation, Portland, OR. 2013. 16 pp. swcd.net/wp-content/uploads/2014/12/Hedgerow-Planting-for-Pollinators-422-Xerces-NRCS.pdf.

Conservation Cover (327) for Pollinators: Western Oregon & Washington Specification and Implementation Requirements. The Xerces Society for Invertebrate Conservation, Portland, OR. 2013. 20 pp. static1.squarespace.com/static/5a849d4c8dd041c9c07a8e4c/t/5a9f27dcf9619a03dd2baf02/1520379871166/InstallGuideJobSheet_WORandWA_CnsrvCvr.pdf.

Pollinator Habitat Assessment Form and Guide: Farms and Agricultural Landscapes. The Xerces Society for Invertebrate Conservation, Portland, OR. July 2015. 12 pp. xerces.org/publications/hags/pollinators-farms-and-agricultural-landscapes.

To learn more about what USDA programs and resources are available in your area, contact your local county conservationist: www.nrcs.usda.gov/wps/portal/nrcs/detailfull/or/programs/?cid=nrcs142p2_044022.

Note: Annie Young-Mathews is District Conservationist, USDA-Natural Resources Conservation Service. She presented "NRCS Programs for Pollinators" during the panel on Pollinator Habitat at the OSBA 2019 Fall Conference.

KEEPING BEES in OCTOBER

Harry Vanderpool

October can be tricky for Pacific Northwest beekeepers who find themselves behind on winter preparation in their hives. On one hand, I recall a year that Liz & I were able to primer and paint a newly constructed garage in November. That year afforded beekeepers many chances to catch up. On the other hand, we have had many years in which we have lit our woodstove for the first time (under 40°F) in mid-October.

A lot of good bee work can get done in October, but we do our best to have our hive weights up to par well before October if possible.

Speaking of hive weights, Michael Palmer, one of last year's Fall Conference presenters, weighs each and every hive in the late fall to ascertain, positively, that his hives have sufficient stores to make it through winter. All 650 of them! I thought he was pulling my leg when first hearing of this, but I have since seen proof of this effort. THAT is one good beekeeper!

While taking the tip from Mr. Palmer, I take a slightly lessor approach. When hefting the top box aside in order to place pollen patties, I assign a number to each hive, 0 – 5. Zero means that the hive is honey bound and should not receive additional feed. Five means that the hive is featherlight and needs serious attention to weight. As each hive is fed, the number is reduced by one for each feeding.

Once fall robbing subsides, we like to remove any entrance reducers still in place and make sure that all hives have full-width mouse guards. Mouse guards should also be called *Varroa guards*. If our comb is allowed to be destroyed by mice in winter, the bees will replace the damaged area with drone comb, which will result in a mite incubator. We attempt to limit drone comb to a bare minimum in our hives.

Rain returns in full force in October, and soon frost, ice, and snow will descend upon our hives. We like to provide a barrier between our hives and the elements for the few nasty weather months prior to spring. There are a number of solutions, but we have settled on 30-pound roofing felt (not tar paper) to cover our pallets. Placing these covers reduces excess moisture in wintering hives as well as extends usable life of woodenware.

Our hives are moved from their locations and placed in their winter yard in October. Pallets are set atop rows of pallets in order to have clean, weed- and mud-free pallets for movement into almonds.

As much as I love every year working with bees, I really look forward to October when I can spend days in the shop working on trucks, equipment, etc. Radio, fresh coffee, buddy dropping in; love it! A "winter to-do list" is very helpful in making the best use of the off season. In a blink of the eye, almonds will be upon us.

October is conference time, and you can't miss this year's line up! Sign up NOW! And remember: Our Fall Conference is greatly improved by your presence, including virtually this year!

Note: Adapted from the October 2019 issue of *The Bee Line*.

BEE EVENTS

~ 2020 ~

October 3–4: Washington State Beekeepers Association Conference. Online. Information: wasba.org.

October 23 (10 AM): Commercial Beekeeper Workshop, online. *Information*: page 4; carolyn.breece@oregonstate.edu.

October 24–November 14, portions of two weekends and three Wednesday evenings (see tentative agenda, page 11): Oregon State Beekeepers Association 2020 Fall Conference. *Registration:* page 10 and orsba.org.

November 17–19: California State Beekeepers Association Convention. *Information*: www.californiastate beekeepers.com/annual-convention.

December 3–4: American Honey Producers Association Video Conference. *Information*: www.ahpanet.com/ahpa-2020-december-virtual.

~ 2021 ~

ABF Conference & Tradeshow. Postponed until 2022.

OSBA Fall Conference 2020

Oregon State Beekeepers Association

October 24 thru November 14, 2020
Online via Zoom

Name:_____Date:_____

Company:_____

Address:_____

City:_____State:_____Zip:_____

Contact Phone:_____email:_____

If more than one registration per form, please include mailing and email addresses for all participants.

			Amount
Full Conference [1]	$50 per Person	Number:_____	$
Research Donation [2]			$
Annual OSBA Dues [3]	$40 per Person	Number:_____	$
Total [4]			$

1) Attendees qualify for preregistration rate if application form (with registration fee) is postmarked on or before October 1. **Late registration rates are**: **$60**. **There are no refunds this year**.

2) The Oregon State Beekeepers Association is classified as a 501(c)(3) charitable organization. Research donations made out to the OSBA may be deductible; please consult your accountant.

3) Please include completed membership form(s). New Memberships extend thru 2021.

4) Make check **payable to OSBA** and mail with this completed registration form, **postmarked no later than October 17**, to: **Oregon State Beekeepers Association, 2020 Fall Conference, PO Box 10, Aurora OR 97002**. After October 17, registration is online only.

PRESENTATIONS and DEMONSTRATIONS

A full lineup of research updates and learning over portions of two weekends and three Wednesday evenings (page 11).

SPECIAL EVENTS

ZOOM PRACTICE SESSIONS: *All registrants welcome*!
HONEY SHOW: *All entries welcome*! Honey. Wax. Three Photograph Titles.
SILENT AUCTION: *All items welcome*! *As are all bidders*! All proceeds are given to research. Again this year, GloryBee's SAVE the BEE Initiative is offering $10,000 in matching funds for the auction.
OSU HONEY BEE LAB: *All samples welcome*!

Details and online registration at: **orsba.org**

NEW THIS YEAR

In addition to the Zoom platform, the 2020 Fall Conference will remain available to registrants **for 30 days** after event.

DATES TO KEEP IN MIND

October 1—Early Registration & postmark for mail in
October 2—Postmark for mailed Honey Show entries
October 9—Honey Show entry drop off
October 14, 7 PM—Conference Practice Session
October 17—Postmark for Registration by Mail
October 17, NOON—Conference Practice Session
October 21, NOON—Silent Auction donations end
October 26–Submit questions for October 28 Q&A Session
November 2–Submit questions for November 4 Q&A Session
November 9–Submit questions for November 11 Q&A Session
November 11, 9 PM—Silent Auction bidding ends

Online Registration remains open throughout; complete within **24 hours prior** to a given session to ensure attendance

2020 FALL CONFERENCE: TENTATIVE AGENDA

Planning for the OSBA Fall Conference this coming October and into November has shifted to the virtual realm due to COVID-19. We have scheduled two Practice Sessions for those registered to ensure that everyone is comfortable with the online platform. The Tentative Agenda indicates the framework of the event, to be moderated by Carolyn Breece, Paul Stromberg, and Cheryl Wright. We look forward to seeing you *there*!

~ Saturday, October 24 ~

8:45 AM Opening Announcements | Silent Auction Begins

9:00 AM A Tough Nut To Crack: Pollination Requirements of Self-Fertile Almond Varieties
Elina L. Niño, University of California, Davis

10:00 AM Sugar Water Is Not Honey: Making a Better Bee Feed
Nick Naeger, Washington State University

11:00 AM *Demonstration*: Encaustic Painting
George Hansen, Foothills Honey Company

12:10 PM Break

1:00 PM OSBA General Membership Meeting

~ Sunday, October 25 ~

9:00 AM Pollen Trapping: What You Should Be Thinking About Before You Start
Shelley Hoover, University of Lethbridge, Alberta

10:00 AM Life of a Canadian Beekeeper
Ian Steppler, Steppler Farms Ltd

11:05 AM Updates on Bee Nutrition Research from the OSU Honey Bee Lab
Priyadarshini Chakrabarti, Oregon State University

12:10 PM Break

1:00 PM *Demonstration*: Candle Making
Matt Allen & Liz Lovelock, Apricot Apiaries

~ Wednesday, October 28 ~

6:30 PM *Panel*: Questions for Beginners, Oregon Master Beekeeper Program | Jen Holt, Moderator
Anna Ashby, Max Kuhn, Naomi Price, & Judy Scher

7:05 PM Update from UC Davis E. L. Niño Bee Lab
Elina L. Niño, University of California, Davis

8:05 PM Promoting a Sweet Industry through the American Honey Queen Program and ABF
Mary Reisinger, 2020 American Honey Queen

8:35 PM *Demonstration*: Honey Show Judging
Marjie Ehry, Happy Bee Apiaries

9:05 PM The Bee Informed Partnership: Programs & Colony Health Trends
Ben Sallman, Bee Informed Partnership

~ Wednesday, November 4 ~

6:30 PM *Panel*: Questions for Beginners, Oregon Master Beekeeper Program | Jen Holt, Moderator
Anna Ashby, Max Kuhn, Naomi Price, & Judy Scher

7:05 PM Are Honey Bees Like Chickens and Bumble Bees Like Polar Bears?
Andony Melathopoulos, Oregon State University

8:05 PM Report on Current Research Funded by Project Apis m.
George Hansen, Foothills Honey Company

9:00 PM *Exploration*: Fun Facts About Bees
Morris Ostrofsky, Washington Master Beekeeper

~ Wednesday, November 11 ~

6:30 PM *Panel*: Questions for Beginners, Oregon Master Beekeeper Program | Jen Holt, Moderator
Anna Ashby, Max Kuhn, Naomi Price, & Judy Scher

7:00 PM Raising Quality Queens in Pollination
Shelley Hoover, University of Lethbridge, Alberta, Canada

8:00 PM Pesticide Exposure in Context
Emily Carlson, Oregon State University

8:32½ PM Evaluating Altruistic Behaviors in Honey Bees (*Apis mellifera* L.) Infected with Gut Microsporidian *Nosema ceranae* | Ellie Chapkin, Oregon State University

9:00 PM *Demonstration*: Under-Appreciated Products of the Hive with an Emphasis on Propolis
Judy Scher, Urban Beekeeper

~ Saturday, November 14 ~

9:00 AM Varroa and Pesticides Research Update from OSU Honey Bee Lab | Ramesh Sagili, Oregon State University

10:05 AM Using Fungal Spores To Kill Varroa
Nick Naeger, Washington State University

11:00 AM *Panel*: Current & Future Outlook on Varroa Mite Control | Ellen Topitzhofer, Oregon State University
Todd Balsiger, Hood To Coast Honey
Matt Hansen, Foothills Honey Company
Jan Lohman, Vazza Farms, Inc (retired)
Ramesh Sagili, Oregon State University

12:05 PM Donations to OSU Honey Bee Lab, Announcements, and Closing

Note: Times are approximate. Full schedule at **orsba.org**.

New beekeeper association formed in Grants Pass.

Information: Mike Miller at 503.660.7321.

REGIONAL NEWS

Regional Representatives

North Coast

Up until the last couple of days, things have been nice here on the coast. Weather pretty dry, comfortable (for us), not too much wind. Fall forage can be a problem, although asters and English ivy are pretty prolific now. Then yesterday I woke up early to the smell of smoke. My house was intact, though outside the smell was stronger and the 6 AM sky was a deep red over the entire expanse. I've been wondering how the bees reacted to these conditions. Does the smoke keep them in their hives consuming honey in case they have to make a run for it? If they do go out, are they able to navigate when the sun is red ball in an orange sky? Hopefully, their skies will be bluer and their air clearer before too long. That would be nice for all of us. So, while I'm sitting here thinking how "difficult" the last 30 hours have been without electricity and breathing pretty pungent air, I'm also thinking about what it must have been like for those on the front lines trying to stem the fires, repair downed power lines, and help folks evacuate threatened areas, and I am so grateful for these people who work so hard for all of us. *Kathy Cope*

Regional Associations

Central Oregon Beekeepers

I hope you, your families, homes, and businesses have survived through the terrible ordeal of wildfire. And you who have losses are truly in our thoughts. October in Central Oregon normally starts out as warm and clear, becoming pretty crisp and clear. Our average first freeze is in the first or second week of September, with the first hard freeze frequently waiting until the second week of October. Some of us actually look forward to that first hard freeze and the cessation of the nightly rite of covering the tomatoes and squash and uncovering them before going to work in the morning. In town, there are frequently still autumn flowers until mid- or late October, but they may not be particularly good forage plants, and, in more rural areas, there isn't much going on. The rule of thumb here is the winter bees are being created during the last of August through September. Most folks will harvest in later August, with the laggards (or those who are particularly busy) waiting until mid-September. The final mite control of the year also should have been completed in August or September. All there is left to do is feed, feed, feed as needed until the hard frost starts keeping the bees indoors.

We've had wonderful talks by OSU experts on the hows and whys of spotty brood and late-season mite controls. We're looking forward to a couple of talks on the current goings-on in beekeeping as well as learning what we can control and what we can't.

With all the human suffering going on, it definitely sounds like a first-world problem, but we're sure looking forward to being able to meet in person again. Maybe someday. We're also talking about how a beginner bee school might be designed with social distancing. We'd be interested in discussing with other associations their thoughts.

As always, please feel free to join any of our meetings (normally the 4th Tuesday of the month at 19:00. You can find the Zoom invitation on www.cobeekeeping.org. *Allen Engle*

Columbia Gorge Beekeepers

Every day the interaction of nature, our environment, and its creatures becomes more apparent. Colonies in the Columbia Gorge region have come this far with few issues. The dominant hive issue has been queens. It would be easy to suggest formic acid as the culprit of the queen demise, but many instances of hives being left in a queenless state were not treated. The queens just died! Some hives had queens replaced more than once. A very strange year. It is also a year where the weather and nectar availability seem to not be in unison. The blackberries bloomed early, but the weather changed to clouds and rain frustrating the foragers in their duties. So, this was not an abundant honey-producing year. The situation will most likely result in increased winter losses for those colonies short on supplies. Rick Olson was our speaker in September providing some great insights into "why your hive died." Similar to

humans where post mortems have provided great medical knowledge, the need to perform a post-demise inspection of the colony to ascertain the cause is vital to the beekeeper's education growth. This month Christopher Adams, Assistant Professor, Hood River Extension, will grace our association. Chris is new to the area and extremely active.

Jerry Frazier

Lane County Beekeepers

Lane County has a very talented watercolor artist, Janine Piercey, who has donated an original, framed and matted 21x27 picture of honey bees collecting pollen to earn money to donate to the Oregon Bee Project. Tickets are $5.00 each or 5 tickets for $20. The drawing will be held on October 20, 2020, at our association Zoom meeting with the winning ticket being drawn by Andony Melathopoulos. The deadline to purchase tickets is October 10. The raffle is open to all, and if anyone reading this would like to take a chance to win this beautiful painting, please contact Pam S Leavitt at 541.344.4228 or pamseaver2000@yahoo.com.

Pam Leavitt

Oregon Central Coast Beekeepers

The honey flow is pretty much over on the coast, except for the Japanese knotweed bloom, which is in full flower. This invasive produces a wonderful dark and rich honey that I particularly like with buckwheat pancakes. Of course, not everyone agrees with me, so many coastal beekeepers lucky enough to be near a patch leave this for the bees to support them over the winter.

The Central Coast attempted its first in-person, masked, and socially distanced meeting in August as folks were burned out on Zoom. Eight members met in Florence at the home of our vice president for a demonstration of honey extraction and a talk on winter prep followed by a walk through of some hives and a chance to catch up with each other. We are looking forward to September's meeting, where Ellen Topitzhofer from the OSU Honey Bee Lab will talk on Zoom about queen rearing.

Becca Fain

Portland Metro Beekeepers

We are getting towards the end of this beekeeping year, but many critical tasks and activities in our yards and apiaries remain. We are in our dearth period with respect to nectar, but I'm seeing pollen being transported back to my and others' hives. Looking about the garden, I've seen workers on sunflowers. borage, asters, and the late-summer planting of pak choy flowering as it goes to seed. Elsewhere, I see bees on dandelions and even Queen Anne's lace in the pastures and along roadways. The main thrust has been and will continue to be control of Varroa mites. Most of the beekeepers I talk with are testing and treating hives. A good practice of testing half of your colonies and treating as needed will help your hives go into fall with one less stressor on them. Many of us have started feeding, both 1:1 sugar syrup and pollen substitute patties. Based upon the rate bees are consuming both, it is timely and needed. I'm reminding myself that this September and October are the months the colonies produce the "fat bees" that will endure the fall and winter months. So, it is crucial to make sure they have all the resources they need.

Our last association meeting included a presentation by Dr. Juliana Rangel-Posada on the effects of miticides on the reproductive health of queen honey bees. Among other things, we learned that there is synergy with miticides and other colony stresses that can contribute to and lead to colony declines. We also learned that miticides and other residues contaminate wax. And that contaminated wax also affects drone sperm production and quality. The good news is that formic and oxalic acids do not remain in bees wax. The upside to virtual meetings is that knowledgeable and experienced presenters are more readily available to local associations that do not have budgets for travel and other expenses normally required to have presenters at association meetings.

Another virtual event is on the calendars of many of us already, that is the annual Oregon State Beekeepers Association Fall Conference. Spread over three weeks, it will provide regional and nationwide educational expertise by presenters from across the nation. And, because of the virtual nature of the convention, costs are considerably lower than the "in person" event. Many of us are planning to donate the price difference, travel, and lodging expenses to the OSU Honey Bee Lab and/or other educational and research entities who are at risk of reduced funding because of the pandemic and economic slowdown.

David Schwartz

Portland Urban Beekeepers

The Portland area rolled into September with high heat and no rain in sight. These were likely the last weeks of dry weather before we start to see fall rains arrive. These can be busy times for beekeepers readying their hives for the deep fall and winter. Our last monthly meeting was full of practical advice! Mandy Shaw, who has served PUB since 2016, provided helpful reminders to the group on how to best prepare. This is a critical time for the developing nurse bees, who will go on to raise our winter bees, who will in turn raise our spring bees! Three important factors at this

time are mite management, providing nutritional support in the form of syrup and pollen patties, and equalizing hives for colony strength. At the same meeting, we also hosted Ben Sallman of the Bee Informed Partnership. He shared details on the life cycle of the Varroa mite, which we all know to be quite a formidable foe. He recommended spanning mite treatments across a couple of weeks so the treatment kills phoretic mites as well as the ones that hatch out in the following days and weeks with new bees. The Partnership conducts extensive research on mite testing and found alcohol wash tests resulted in 95 percent of the mites being accounted for. With a sugar roll, only 60 percent of the mites were dislodged, a discrepancy which could have a significant effect on our treatment decisions. With regard to treatment, Partnership research showed Apivar works better in spring and will not be very effective on high mite loads. For thymol, two smaller treatments are more effective than one long one. It might kill some open brood, but it's okay, the queen will fill it out. Formic acid works well for high mite loads but can kill brood/queen in hot weather. Oxalic acid is very effective on high mite loads and is particularly effective in winter. Sallman recommended a dose of 35 g oxalic crystals in 1 liter of 1:1 sugar syrup and with 5 ml dripped in between the frames as a one time treatment. His recommendation for OA vaporization was that the smoke should be billowing out and underdosing is a common problem. Vaporization is also best in late fall through spring, several days apart. Now get out there and prep those hives!

Jessica Anderson

Tillamook Beekeepers

After two days of fires in the vicinity of my hives and knowing that many of our beekeepers are suffering fires on the very property where their bees are, I am worried about these wildfires harming our honey bees. Hundreds of thousands of acres are being or have already been destroyed by wildfires here in Oregon. Not only is the future foraging for honey bees destroyed, but the billows of smoke polluting the air cannot be good for the honey bee. This honey bee keeper is affected immensely by the foul air. I have taken more puffs from my rescue inhaler these past couple of days than I have for months. What, then, is this doing to my bees? How many hives have been destroyed by the fires themselves? That is a question we need to ascertain in the coming weeks. But, I am talking about the concern of the well-being of those bees whose hives haven't been destroyed but have to live with the added stress of bad air and obviously even a greater lack of forage now and in the immediate future. I read this morning an article from Penn State about the bee's decreasing ability to forage as air pollution increases (see https://news.psu.edu/story/416642/2016/07/06/research/bees-ability-forage-decreases-air-pollution-increases). The author, Liam Jackson, states, "Air pollutants interact with and break down plant-emitted scent molecules, which insect pollinators use to locate needed food, according to a team of researchers led by Penn State. The pollution-modified plant odors can confuse bees and, as a result, bees' foraging time increases, and pollination efficiency decreases. This happens because the chemical interactions decrease both the scent molecules' life spans and the distances they travel." The study is worth the time. The article concludes, "Honeybees and other pollinators are in trouble almost everywhere, and they pay us a lot of services through their pollination. The more we can understand about what factors are affecting their decline in numbers, the more equipped we will be to intervene if needed."

Just an added complexity to our otherwise complicated challenge of keeping our honey bees alive. My personal observation of my hives today suggests that my bees are confused and, if possible, I think depressed with the heavy air and polluted skies. Here's to hoping that they get past this temporary stress and that they are strong enough to make it through the winter.

Brad York

Tualatin Valley Beekeepers

Wow, what a wild ride 2020 has been so far. As this is written, much of Oregon is blanketed in smoke. Not good for humans or bees. We are so sad for all of the wild pollinators, insects, birds, animals, and humans lost in the wildfires. Tualatin Valley Beekeepers Association continues to do our best to support amateur beekeepers, helping to educate them and providing mentoring support as our resources allow. All best to bees and beekeepers around the State of Oregon.

Debby Garman

Remains of the home of an OSBA member in southern Oregon. May everyone find all the support needed and remain safe while continuing to navigate the tragic losses of 2020.

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, swarm call listing, four free online classified ads per year, discounts on publications, and an annual directory and subscription to *The Bee Line*.

*Please send check made payable to OSBA with a **completed form for each individual** to:*

Oregon State Beekeepers Association, Membership
4207 SE Woodstock Blvd, Ste 517, Portland, Oregon 97206

Date: _____ ❑New Member ❑Membership Renewal

First Name:_____**MI:**____**Last Name:**_____

Company name: _____

Type: ❑Small scale (less than 25) ❑Sideliner (25–300) ❑Commercial (more than 300)

Mailing address:_____

City:_____ **State:**_____**Zip:**_____

Telephone number: _____ **e-mail address:** _____

Newsletter: Please select version: ❑**Digital** ❑**Print** **County:** _____

Membership Directory: The OSBA respects the privacy of members. Please indicate contact information to be included in a directory mailed to OSBA members only:

❑**Do not include contact information**

❑**Share all information *OR* Share:** ❑**mailing address** ❑**phone number** ❑**e-mail address**

Local group, if member: _____

Membership dues: $40 per person ($50 per person outside the US) $_____

Voluntary contribution(s):

General Fund $_____

Research Fund $_____

Total amount enclosed: $_____

Note: To renew or join online, please visit:
orsba.org/membership

Thank you!

New memberships entered through the end of 2020 extend throughout 2021.

Oregon State Beekeepers Association
4207 SE Woodstock Blvd Ste 517
Portland OR 97206

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Deadline for **early conference registration**: **October 1**.

Deadline for **mail in registration**: **October 17**. **Online registration deadline**: **24 hours prior** to session.

We look forward to "seeing" you *there*!

It's not too soon to join or renew membership for 2021!

The Bee Line

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

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

The next issue to be printed will be the **November-December** issue, 2020. The deadline for submitting copy is **October 10**, **2020**. Please let me know if you find difficulties with the deadline so we can work out the space and timing for the material.

May all be well!

Advertising

Per Issue

Event	**Listing**
All events, space permitting (15 words)	**Free**
For a nonprofit group event, an additional 30 words (total of 45) in the listing or an article	**Free**
Advertising	
Business card	$10.00
Quarter page	$25.00
Half page	$50.00
Full page	$100.00
Classified Ad (30 words)	
Members	$3.00
Nonmembers	$5.00