AGRIVOLTAICS: A POWERFUL SWEET SYNERGY: Part II

John Jacob with contributions from Rob Davis

Making Productive Use of the Land

A big area of contention that we run into is the accusation that a solar/pollinator agrivoltaic project is not a productive use of farmland and positive steward of the soil. This fallacy can be dispelled with several facts, not the least of which is the fact that pollinators add so much to the agricultural economy and are legally defined as livestock in most states. That said, even here in Oregon—a nationally leading state for pears and blackberries—people take bees and their beekeepers for granted. Read up on your state’s Census of Agriculture report—Oregon’s shows that we grow more than 300,000 acres of turfgrass seed that gets used for pasture, but also to permanently convert farmland into suburbs and soccer fields. Like turfgrass, there are many nonedible crops that can be compared to the perennial flowering vegetation on an agrivoltaic solar project.

The low-growing meadows of native plants on a solar/pollinator agrivoltaic project hold the topsoil on site and improve it over the life of the project. Deep root systems can bring minerals and nutrients to the topsoil and over time vastly improve tilth. Pollinator-centric agrivoltaic sites can be thought of as the ultimate long-term CRP that will both improve fertility and protect topsoil due to lack of chemical inputs and annual tilling.

Agrivoltaics offers many additional benefits to current and future farm uses, such as reduced water use, which can immediately relieve pressure on tight water supplies, as well as provide enhanced pollination services to nearby farm and garden operations.

Another area that I’ve seen push back on from the farm community is the misconception that the racking systems the panels are mounted on will result in a lot of concrete and gravel in the ground. The industry standard is actually removable ground screws or pile-driven posts. These systems are designed from the start to be removable in order to allow the adoption of new technologies or the conversion of the site for another purpose.

Dealing with fearful neighbors and citizens is nothing new to beekeepers, and, as we all know, dealing with NIMBYs is a task best dealt with through education, exposure to the truth, and a little taste of the sweet rewards of beekeeping. Keep some samples of solar farm honey with you—it’s amazing how people warm to the concept once they’ve tried the harvest.

Sometimes the basic economic argument for supporting pollinators just doesn’t work for people. But when you bring it back to food—that’s when you can reach people. If you eat food, you are a participant in agriculture and therefore dependent on pollinators. My co-author does this particularly well in his TEDx talk (find it via Google) titled, “This Unlikely 1960s Space Tech Can Help Save the Bees.” Our need for pollinators is a matter of survival and prosperity; however, many cannot get beyond the notion that food just comes from the grocery store or drive-thru window.

Solar farms are popular and are being developed in areas that may have been corn and beans for the last 70 years. As a result, people want to know if solar installations will have any influence their property values. Despite the appeal of a quiet neighbor or
OREGON STATE BEEKEEPERS ASSOCIATION EXECUTIVE COMMITTEE

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AFFILIATED REGIONAL ASSOCIATIONS

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, virtually
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

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: Brian McGinley—56magoo@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, virtually
President: Doug Sieckmann—503.804.5417
Website: portlandmetrobeekeepers.org

Portland Urban Beekeepers
Meets 6:00 PM, last Tuesday, virtually
President: Debby Garman—debbygarman@gmail.com
Website: tvbabees.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, fourth Monday, Salem
President: Richard Farrier—rfarrierfarms@gmail.com
Website: www.wvbahive.org

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

One hundred years ago, the world was a very different place. World War I was coming to an end, women were only just recently beginning to exercise the right to vote, and prohibition was in full swing. Albert Einstein gave his first talk on the Theory of Relativity, and Amelia Erhardt got her first flying lesson. This is also when the Oregon State Beekeepers Association began. This decade was a period with a lot of firsts and would go on to be known as the roaring 20s—a period of prosperity for some, but not all Americans.

Although 1921 was a very different time, there are striking parallels to our current day. By 1921 we had just lived through the deadly Spanish Flu pandemic and a devastating world war. These were very trying times with a lot of violent civil unrest over race and labor issues. This was also a time of very high unemployment as our troops returned home from the war to no jobs and orphanages filled by the pandemic. Much of this sounds eerily familiar, and I really hope we can learn lessons from our history to make a brighter future in 2021.

1921 was a very interesting time in beekeeping. During the previous decade and a half, many beekeepers were losing up to 90 percent of their colonies to a mysterious disease. Entire honey bee populations were nearly wiped out in many countries around the world. This mysterious disease was known at the time as the Isle of Wight Disease. The symptoms included lots of crawling bees that could not fly and bees crawling off en masse to die resulting in the hive dwindling into oblivion. Anybody who ever as experienced colony collapse can probably relate to how these beekeepers must have felt 100 years ago. There is a good reminder here for us. This history lesson shows us the value of honey bee research. For example, in November 1920, Dr. Rennie and his colleagues were able to give the first details of their discovery of Tarsonemus woodi (subsequently renamed Acarapis woodi) as the cause of the disease. We now know this eight-legged vermin as the tracheal mite. 1921 just happens to be the year that extensive research and breeding programs began to pay big dividends. From Brother Adam on resistance breeding efforts: “...1921 was exceptionally favourable, and the second-generation hybrids surpassed our highest expectations. Two of the best queens, sisters, were selected as breeders for use in 1922.” For a deep dive into this historical account, check this link out to read a great writeup by none other than Brother Adam: www.pedigreeapis.org/biblio/artcl/BAacarine68en.pdf.

One hundred years later, we still find apiculture facing serious challenges. The good news is that we have the same tools as our predecessors used to successfully address our current problems. These tools are fundamentally science and research. The biggest difference now and then is that our tools are much sharper and we have a much deeper understanding of biology. One of the reasons that I am proud to be a part of this group is our history of supporting honey bee research. By now you are all probably growing weary of my endless refrain, but this is one of the things I am most excited about for 2021.

Our centennial crowdfunding campaign is an opportunity for us all to make a real difference, and by all I mean everyone. Anybody who eats food is a stakeholder in pollinator health, and a crowdfunding campaign is a great way to leverage our combined social media to reach a lot of people, both inside and outside our immediate beekeeping community. Our fundraising committee has set out a goal of raising $500,000. To achieve this, we will all have to work together to reach as many social media users as possible. There are about 4 billion social media users out there, so reaching even a small percentage of these potential donors could have a huge impact. We are working to put together a campaign to save the bees that we all can be proud to share with everyone we know. More details on this soon, and we will be discussing it at our next board meeting on January 16.

As difficult as 2020 was, we definitely learned a lot that we can build on in 2021. By all measures, the virtual fall conference was a raging success. Despite a steep learning curve, we were on target near our usual fundraising amounts. Together with our legion of volunteers, we managed to raise over $17,000 to support research. Thank you so much for your donations and special thank you to the team for diving in and working so tirelessly to put the conference together. Another great thing we learned is that we can make the commute to board meetings zero miles and that we can work successfully with membership via Zoom to hold a vote. Moving forward, this should help with boosting participation and make us a more nimble organization. To that end, I think as a group we should consider updating our Bylaws and Constitution, specifically:

Bylaws, ARTICLE IV Amendments
These bylaws may be altered or amended only at an annual conference by a two-thirds vote of the total membership present at the meeting, provided notice of the proposed changes have been sent to all members at least one month (30 days) prior to said meeting.

Constitution, ARTICLE IV
Membership Section 1: Membership Categories—Membership in Oregon State Beekeepers Association shall include two categories: paid members and honorary life members. Each member shall have voting privileges in the association and thus be entitled to one vote at the annual meeting and at special meetings of the membership. Proxy voting shall not be permitted. In addition, each member shall receive a subscription for the year of membership to the Oregon State Beekeepers Association publication, The Bee Line.
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I would love to get some input from membership on this. I think it would be helpful to our group if it were possible for us to have more than one opportunity for membership to vote each year. One thing that 2020 has taught us is to expect the unexpected, whether it is a threat or an opportunity. A virtual meeting and membership vote as situations arise will make us more nimble and adaptable to an ever-changing landscape. Typically, we wait until the fall conference every year to get approval by membership. This could be a serious encumbrance to our ability to get things done in a timely fashion. Perhaps we just need a little more clarity around the “and at special meetings of the membership” piece. Our strength is in our collective action and the ability to take action on an as needed basis could be a factor for our group for the next 100 years.

Please don’t forget the deadline for art submissions for our centennial logo design contest is January 13. This is open to all and there is a $300 prize. See details below. Lastly please remind your regional association members to join the OSBA to receive formal affiliation status and receive insurance for events. We need at least 5 members from each regional association. Wishing you all a prosperous and happy New Year.

John Jacob

Centennial Logo Contest!

Next year is the 100th year of the OSBA. We are planning a big Centennial Celebration, and we are excited to announce a logo design contest for hats, t-shirts, and posters for the occasion. We love our current logo; however, a centennial is such a rare event so we would like to come up with something really special for the occasion. These hats and tees will be available to membership and possibly as thank you gifts for our crowdfunding campaign, so your artwork could have an opportunity for a national stage.

Please submit your art donation to the OSBA as a photo, PDF, or original art to Karen at osba.secretary@gmail.com by January 13. The winning designer will receive a $300 award and have the opportunity to showcase their work while helping the OSBA continue to raise funds to support pollinator research at the OSU Honey Bee Lab. This is a great opportunity, and a win for the bees, beekeepers, research, and design.

Please note that this contest is open to any and all, so please let your artist designer friends know. We hope the winning design represents the OSBA, the great work we support at OSU, Oregon, beekeepers, and our 100 years strong centennial celebration. A great design should be appealing to people all over the county and Oregonians alike.

OSBA Executive Committee Meeting
October 16, 2020  via Zoom

The Executive Committee’s quarterly meeting was held several days prior to OSBA’s annual fall conference. Present were Cheryl Wright, Rosanna Mattingly, Jan Lohman, Debby Garman, Becca Fain, Paul Stromberg, Harry Vanderpool, Mike Rodia, Karen Finley, Kathy Cope, John Jacob, Joe Maresh, Mike France, Barb Derkacht, and Joe Hansen.

Minutes of our June executive committee meeting were approved as published in The Bee Line. Joe Hansen gave the treasurer’s report, and Jan Lohman shared the balances of OSU Foundation funds. Jan said 2020 officers had agreed to serve again as 2021 officers. Most regional representatives are also willing to continue. The only change is that Christy VanRooyen will serve as the South Central Oregon Regional Representative. The mechanics of voting for the officers and regional representatives via Zoom were discussed, and the slate of officers and regional representatives was referred for election (pending nominations from the floor) by the general membership at the October 24, 2020, meeting.

Affiliated association/regional representative reports were given by those in attendance.

2020 conference preparations, projected attendance, financials, and mechanics of Zoom were discussed briefly by Joe Maresh.

The group tabled discussion of 2021 fundraising, business memberships, future conference speakers, and centennial activities to a date after the current conference.

The executive committee voted to make the following allocations from the OSBA Research Fund: A total of $20,000 will be distributed as follows—$15,000 will be given to Oregon State University’s Honey Bee Lab, $2,000 will be distributed to the Oregon Bee Project, $1,500 to Project Apis m., and $1,500 to Washington State University’s Honey Bee Program (Steve Sheppard). The executive committee also voted to match up to $500.00 of any annual donations to the Oregon State University Honey Bee Lab by OSBA-affiliated beekeeper groups.

OSBA General Membership Meeting
October 24, 2020  via Zoom

In Attendance: Cheryl Wright, Rosanna Mattingly, Jan Lohman, Marjie Ehry, Debby Garman, Becca Fain, Paul Stromberg, Harry Vanderpool, Mike Rodia, Karen Finley, John Jacob, Joe Maresh, Mike France, and Joe Hansen (& other members of OSBA ).

The meeting was called to order by president John Jacob. The minutes of the October 2019 general membership meeting were approved as published in The Bee Line.
Treasurer’s Report

Joe Hansen presented the treasurer’s report. Balance sheet: The balance of total accounts as of October 23, 2020, was $63,938. Compared to the same date in 2019, our bank account was down by $21,000. This is mostly an artifact of the timing of income and payment of expenses. The physical conference generates a lot of money with registrations, but the considerable expenses (catering, etc.) of the physical conference at Florence were paid later in 2019. We will not have them this year.

P/L for the year to date: Joe said that the 2020 conference costs were not yet finalized, but seems clear that OSBA won’t lose money. At the time we had income of $7,940 from online registration and $1,650 from program ads. We will likely gross $13,000 on the digital conference, so actually the net income from 2020 is likely to be pretty decent, given the times. Thanks to all the talent within OSBA and considerable involvement from Carolyn Breece of the Oregon State University Honey Bee Lab, putting on the virtual conference was a financial success.

Otherwise, most increased costs in 2020 are due to our increase in the stipend for Rosanna and printing costs. At this point in time, the financial effects of the adjustment to timing of membership dues are being seen. Joe expects that income in the form of membership dues will come in later in December or early January. Currently, the dues will cover our expenses.

Charlie motioned to accept the treasurer’s report, Jan seconded, and it was approved by a vote from the membership.

In the 2020 Research Fund bank account, there are $29,169 expendable above a retained emergency reserve. John announced to the membership that the executive committee had decided that a total of $20,000 will be distributed as follows: $15,000 will be given to Oregon State University’s Honey Bee Lab, $2,000 will be distributed to the Oregon Bee Project, $1,500 to Project Apis m., and $1,500 to Washington State University’s Honey Bee Program (Steve Sheppard). The executive committee also voted to match up to $500 of any annual donations to the Oregon State University Honey Bee Lab by OSBA-affiliated beekeeping groups.

Regional Representative Reports

Tom Cinquini of the Portland Metro region reported a huge increase in phone calls from the public this year, maybe 10 times normal. A lot of swarms reported, hive removal requests, and fire concerns. In his area, some beekeepers lost hives in fires and the honey crop throughout was down about 50 percent of last year. Many attribute this to summer rain.

Maureen Walker, South Coast Regional Representative, reported that their area had a fantastic blackberry flow, lots of swarming, and lots of sun. The associations there are “not techy” and so haven’t had much going on all year, not using Zoom, but intrigued by reports from others.
Jan introduced Christy VanRooyen, who has agreed to serve as South Central Oregon’s representative. She is new to the Klamath Basin bee association. Christy teaches in natural science at Oregon Tech, has done some native bee research, and has also interned with Sarah Laird. Christy lives in Klamath Falls.

**Affiliated Association Reports**

Affiliated association presidents in attendance then gave their reports.

Cheryl Wright, of Portland Urban Beekeepers, said they had the 2020 bee school in person and 3 more sessions/demonstrations over the season. They are participating in the AFB/EFB task force established by Dewey Caron, which has been giving some support to beekeepers conducting deadout autopsies. They are trying to determine if there is an AFB/EFB problem in Portland. They have arranged a lot of speakers from all over the country and at least ½ of members are attending Zoom meetings live or catching the recordings after the fact. Cheryl invites OSBA members to (Zoom) drop in and listen to any of the speakers. Next up is someone from Fungi Perfecti in Olympia to further explore some of the science around fungi and bees that Dr. Naeger talked about at the annual meeting. In December they will have a virtual honey tasting led by Dr. Caron. They are selecting honeys and sending little samples to association members.

Becca Fain of Oregon Central Coast Beekeepers reported that the group had a good honey year due to the warm weather late spring and early summer; good honey crops are not usual for them. The group has tried, but burned out on, virtual meetings, so no more meetings will be held until after the first of the year. They are involved with the Florence Farmers Market’s virtual “Fill Your Pantry” event and are selling honey there.

Mike France, of Lane County Beekeepers, said they had no bee school but some members stepped up and sold honey at home locations, then dedicated the proceeds as a very substantial donation to OSU. Also their member Janine Peircy painted a really nice painting that they auctioned off and raised $700 for the Oregon Bee Project.

Tualatin Valley Beekeepers Association (TVBA) president Debby Garman reported that TVBA squeaked in a bee school in early March with COVID-19 preventative procedures. They have maintained 40–60 members attending Zoom meetings, and the membership is going up. They are using Wild Apricot’s online package, and it has been a great step for them to take in managing membership and communications. It has lots of useful bells and whistles. Steve Gomes has helped a lot with evaluating and managing for mites. Thank you, Steve!! The group is using their community honey house, and it has been well used as safed up for COVID. The AFB/EFB task force has been a great opportunity for them; they so far have found no foulbrood while evaluating deadouts, just mites and queenlessness.

Risa Halpin of Southern Oregon Beekeepers said they met in October and filled 50 seats (the COVID maximum) with a good discussion on winter preparations. They planned to meet again in November. They are rolling over late-season 2020 membership dues to 2021. They have had no changes in their board. They haven’t done Zoom meetings, as “they are not a techy group,” but did arrange something on Facebook live and the younger folks did attend and enjoy this; older folks didn’t attend. Risa has heard positive things about the honey year in her area.

Paul Stromberg, vice president of Portland Metro Beekeepers, reported a challenging year, with a canceled bee day, but the association did cooperate to sell over 400 nucs to members, and the association cooperated to buy sugar (18,000 pounds) and made a big group order of Formic Pro! They are involved with the AFB/EFB task force led by Dr. Caron. It was a swarmy season, followed by rainy weather: They had a low blackberry honey yield. They have Zoom meetings with 50–80 people attending every month and have had speakers from all over the country. Their meetings are on the 2nd Tuesday of the month and anyone is welcome to join.

Linda Zahl, Columbia County Oregon Beekeepers, reported a good year. They had a bee school before the April shut down, and the group has lots of new members. They have had several socially distanced field days, and one of their members is recording field events. Steve Gomes has been instrumental in getting the association off the ground, and also now they have set up and tend an association apiary at the Vedanta Buddhist Retreat Center. It has been a very rewarding opportunity for all involved. They are using OSU Extension’s Zoom and getting lots of help from the Extension office secretary who puts it all together, packaged to watch again. Extension has really helped with tech aspects, much appreciated. They have many people showing up and interested, but not a lot of members paying dues. They are struggling with holding elections due to the Zoom format. The area had good honey production in the Coast Range. They have never had a fall with so much pollen flowing—lots of member beekeepers have noticed this. Also they have formed relationships with an Ohio bee association and the Cowlitz, Washington, beekeepers, so now there are 3 meetings a month! It has been a fun year beekeeping because of the Zoom-built relationships.

**Agriculture Liaison/Residential Beekeeping**

Dr. Mike Rodia said he has served as the OSBA ag liaison for the past 4–5 years, but now he has turned that job back over to Harry Vanderpool and has narrowed his scope down to being a legal/governmental consultant and will focus on government
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affairs related to residential beekeeping. He reported that after 2.5 years, Springfield has adopted a residential beekeeping code on lots less than 10,000 square feet. The code currently just applies to single family residences; they will modify the code down the line to allow beekeeping in multiple residence lots and apartment dwellings. Saint Helens/Columbia County still lacks a code allowing beekeeping at all, despite the thriving association up there!

He still has 2,000–3,000 pamphlets in his garage on residential beekeeping and wants associations/others to send email to him at rrodia@msn.com and he will send them so they can be distributed. The cancelation of bee schools meant fewer were distributed in the spring.

Dr. Rodia also talked about successful March/April efforts to mass mail to commercial beekeepers to inform them about COVID-19 safety/worker protection guidelines for agricultural businesses. There had been no usable mailing list at ODA; they had to create it. Harry Vanderpool reported that all those rules have been added to the website by Rosanna. An Asian Giant Hornet committee has been formed for the state and Ramesh also put out a nice info sheet on the topic. Dr. Rodia said it was a quiet year legislatively, conducting testimony is awkward, often he was the only one in the room at public hearings and was speaking to giant heads on a monitor.

Foundations/Grants
Jan Lohman reported on the OSU Foundation balances. The Northwest Apiculture Fund for Honey Bee Research, Extension, and Education: expendable: $12,746.73/ endowment: $89,454.75. OSU Apiculture Endowment Fund: expendable: $4,131.40/endowment: $66,914.67. Herman A Scullen Memorial Entomology Fund: expendable: $8,042.94/ endowment: $65,405.72. When donating directly to one of these funds, it is possible to specify that it be dedicated to be expendable instead of to be part of the endowment. The OSU Apiculture Endowment Fund was established by Central Oregon Seed (COSI), and beekeepers also donate a $1 per hive rented to COSI. That fund is tapped most often by OSU. The Scullen Fund helps students; there are 2 students who have received assistance out of this fund in 2020. OSBA members are on the Northwest Apiculture Fund and the Scullen Fund committees and are involved in deciding how funds are spent.

Bee Line/Website Update
Rosanna Mattingly clarified that the Asian Giant Hornet link is on the website front page and also under “Resources.” She thanks everyone from affiliated groups and others for sending reports and says that respect for the newsletter deadlines was much better this year, which makes it easier for her to get the newsletter out on time. She will be sending reminders for membership and association affiliation, and get a new directory out as soon as possible in the new year. According to OSBA bylaws, there need to be 5 OSBA members in the local association for maintaining affiliation with OSBA; local association members who are members of the OSBA are encouraged to let their association president know to help the association meet the criteria for affiliation.

Rosanna reported she has scanned old Bee Lines back to 1977; she still solicits any older records of the OSBA in Oregon. If anyone has anything to share, she will return all original photos or written documents. This collection provides a record of the evolution of beekeeping in Oregon as OSBA approaches its 100th year.

The swarm call list will be emptied at the end of the year. People need to rejoin/re-sign up every year to keep info viable. Four online classified ads are free to members every year, but almost no one has submitted ads. Rosanna encourages people to use this opportunity. She will be adding a speaker/speech section where people can sign up as speakers or find speakers for their group or school on the website. Rosanna plans to update the website shortly after the conference. She welcomes suggestions and contributions.

State Fair/Outreach
Marjie Ehry reported all state fair activities have been on hold due to the pandemic. She, Bonnie, and the rest of us look forward to having a State Fair in 2021. Marjie had only 1 beautiful entry to the honey contest associated with the state conference. This activity needs more promotion—who can help? Please contact Marjie!

Business Membership
The last several meetings there has been talk about offering different membership levels and offering a tiered business membership which will be a way to mediate advertising/links on the OSBA website/conference. President John solicited the group’s ideas on the issue. Joe Maresh agreed that it was a good idea to structure a business membership. At the next executive meeting there will be a more detailed and specific proposal made. The language will require a vote by the general membership at OSBA’s 2021 conference.

Bee Lab Update
Dr. Ramesh Sagili reported about COVID-19 pandemic-related lab changes and budget cuts at OSU. This year, thanks to his dedicated lab gang, most projects they had planned were able to be completed. The lab is looking at 15–20 percent cuts in budget next year, but it looks like it is not going to get worse than 15–20 percent so they are feeling stabilized by that. Dr. Sagili and post-doc Priya just got a grant funded by USDA on nutrition. They really appreciate OSBA's support. OSU and the Honey Bee Lab completed a short promotional video showcasing the
lab’s research projects. The OSBA executive committee will use the video for a crowd-source fundraising project and other centennial activities.

Conference Update
Joe Maresh said the conference was going well, and thanked Rosanna for her tremendous effort put into the OSBA conference. And also he and the executive committee thanked the conference team Carolyn, Cheryl, and Paul—they really put in a lot to put the conference together online, including advance practice sessions. A lot of time went into making the OSBA’s first virtual conference; it was harder work than last year to do. Everyone agreed that some aspects of the virtual format are “keepers” for any future conference. Vice President Joe looks forward to a real live in-person conference at Florence next year, but may still include a hybrid-type program using Zoom.

The executive committee had budgeted $5,000 for the conference, but it has cost less and shown good revenue. Company videos sold as ad commercial breaks were helpful in generating revenue. All the executive committee thanked Joe Maresh—he has hit a home run and conference has been great. John Jacob and others noted how virtual field tripping (this year encaustic painting and candle workshops were examples) has opened up a real opportunity. Carolyn Breece filmed the encaustic painting demo on her phone, and Amanda Shaw edited it.

Marjie Ehry thanked Joe Maresh, too; she is positive that he didn’t know what he was taking on when he agreed to serve as VP and work on 2 conferences, both trail-blazing new locations and formats! We are all grateful he is up for #3. Joe Maresh said Carolyn Breece is one who said the conference organizing should be done by a committee instead of the VP.

Charlie Vanden Heuval’s work to create the 2020 online charitable auction was acknowledged by Becca and the rest of the group.

Donations for Honey Bee Research
The executive committee announced to the membership that it had voted to allocate a total of $20,000 from the OSBA Research Fund account as follows: $15,000 to the OSU Honey Bee Lab, $2,000 to the Oregon Bee Project, $1,500 to Project Apis m., and $1,500 to Washington State University’s Honey Bee Program. Up to $500 will be matched to the affiliated groups’ donations to OSU Honey Bee Lab at the end of the conference.

Officers for 2021 Executive Committee
Jan presented a slate of returning officers, all the same as before, then solicited further nominations from the floor. There were none. The slate of officers was approved unanimously.

Regional Representatives
Jan presented a slate of regional representatives for approval by the membership. This group also is mostly the same cast of characters, with Kathy Cope agreeing to stay on “for the time being.” Robert Clements of Klamath Falls area is stepping down due to health problems; he will be replaced by Christy VanRooyen. The slate of regional representatives was approved by unanimous vote.

A meeting was scheduled for the 16th of November to talk about the OSBA’s 2021 plans for centennial promotion and fundraising. Executive committee will meet again Saturday, January 16. Keep an eye out for exciting stuff in the works, including a crowdfunding effort that will roll out as part of the centennial. Meeting adjourned.

Respectfully submitted,
Karen Finley

South Central Oregon Regional Representative
Thank you for your service, Robert Clements.
Welcome, Christy VanRooyen.

Coos County Beekeepers Association
Thank you for your years of affiliation, Coos County.
We will miss you. May you all continue to find means of support and ongoing learning.

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Thoughts About Future Beekeeping

I’m optimistic about the future of beekeeping. I believe we’ve turned a corner. We still have a handful of tools available to control Varroa (maybe fungi in the future), and our knowledge of how to use these tools effectively is increasing. I believe there is growing demand and recognition that we need a genetically improved honey bee to help in the fight against Varroa. And lastly, I think there is increasing adoption of crucial mite monitoring practices. This optimism is in part owed to the ongoing research at places like OSU and WSU, and to individual contributors like Randy Oliver and others.

I want to share a few things I learned this past year . . .

In 2020 I belatedly learned that colony location matters—specifically, that colony location can have a profound consequence in regards to Varroa mite infestation levels. I discerned this through sampling and observed patterns over the years. I shared my hypothesis and supporting data with Ramesh Sagili. His response: “Yes, I agree that location definitely plays a significant role with regards to mite populations in colonies. In a study that we conducted in Madras a few years ago we found that mite levels doubled in colonies that were in high density locations (colony density) when compared to colonies that were in low density locations.” Okay . . . So I thought maybe this colony density issue partly explains why backyard and sideline beekeepers experience significantly higher annual losses than commercial beekeepers? It may. I also think that commercial beekeepers, for a variety of reasons, do a better job at Varroa management.

The takeaway: Beekeepers need to be cognizant that the mere location of their colonies can drastically affect mite infestation levels and should sample accordingly.

Another thing I learned in 2020 came from Carolyn Breece and Ramesh Sagili. Carolyn emphasized the importance of resampling colonies after treatment—preferably the exact same hives—to make sure the treatments were effective. Also, to resample later to check for reinestation, which is quite common in late summer and fall with diminished brood, more phoretic mites, and robbing behavior.

Ramesh said that if you are going to treat one colony because its Varroa numbers are too high, then treat all of the colonies at that location. This is the same logic that applies for foulbrood treatments. Also, Ramesh finished their count regarding the ratio of mites in brood versus mites that are phoretic for a group of colonies at a summer location near Corvallis, Oregon. Their count: 56 percent were in the capped brood, and 44 percent were phoretic.

Tips for January and February

In late February, an opportunity may present itself to check for Varroa populations doing the standard ½ cup of bees. If the weather is uncooperative, then try a sticky board in conjunction with a treatment like Apivar or oxalic and see what falls, and make inferences from that. At this time of year, I believe it is recommended to treat at 1 percent (3 mites per half cup of bees).

Back in the days when we used Apistan strips (fluvalinate), February was one of the two months recommended to treat for Varroa (August being the other). If you skipped the late November/early December treatment of oxalic, or even if you didn’t, consider using a product like Apivar (amitraz). Multiple people have said Apivar works best in early spring when there are fewer mites compared to the fall when there are lots of mites. I remember Harry Vanderpool saying Apivar doesn’t work well when infestations exceed 3 percent (9 mites per half cup of bees, the threshold for fall treatment). Jan Lohman and Matt Hansen said they use Apivar in almonds and don’t treat again typically until June (Jan) or July (Matt). Oxalic is an option at this time, but there is brood, so I will leave it at that. The use of oxalic is a discussion for another time, and more research needs to be done.

Brood is being raised now and food stores are being consumed. Ventilation is important at this time of year to prevent water from collecting under the lid through condensation and then dripping down on the bees. It is much more difficult to keep yourself warm if you are wet. Same applies to bees. Some beekeepers (especially commercial beekeepers using pallets) have holes in their brood boxes which addresses this concern. Others, including myself, have lids designed with vent holes in the corners. Ventilation can be accomplished by simply putting a large nail under the corner of a lid.

Watch food reserves. Heft hives for weight. It is very frustrating to see strong, healthy hives starve at this time of year. Springtime is when hives typically starve. This should be an ongoing springtime concern. Don’t feed syrup yet unless we get 60-degree weather in late February. Randy Oliver recommends Baker’s fondant, hard “candy boards,” or even granulated sugar over newspaper.

Be concerned about the prospect of strong winds at this time of year. If you break the propolis seals by opening hives and don’t secure the lids back down, then don’t be surprised to find your bees exposed to the elements following a wind storm. Don’t ask me how I know.

Departing Thoughts

I have the luxury to see exactly what I wrote last year. At this time last year we were beginning to be consumed by COVID (not literally, but maybe now). The oft heard term
to describe COVID’s infection prowess was that it was going to be like a tsunami wave. I took that tsunami wave analogy and applied it Varroa. An excerpt from last year’s tips (modified): “Varroa sneaks up on beekeepers like a tsunami wave. It grows exponentially and in the final moments reigns destruction, and oh, by the way, there can be aftershock waves too (reinfestation) that can be just as deadly as the original tsunami wave.” It has been a crazy year with COVID, fires, and national politics. My wife works at a hospital. She stayed home today because she didn’t feel well. She just went to the hospital to get her second COVID test this week. Fifty percent of us are asymptomatic to COVID, so it is like a flip of a quarter.

Lastly, I want to express my gratitude for how people are contributing to the “Regional News” section of this newsletter. Often it is like a section of the Bee Tips. I think that’s a really good thing. It reinforces and emphasizes the important things that we should be doing to keep our bees alive and well.

BEEKEEPER EVENTS

2020 Memberships expire December 31, 2020. Members can renew online at: orsba.org/product/join-renew-osba-
North Coast
Well, by the time this comes out 2020 will be behind us and we can cautiously look forward to fresh, new year. I hope it’s a good one for everyone. It’s been difficult not being with other beekeepers for so long. Zoom has been a welcome alternative, but it’s just not the same. It has been even more difficult watching people lose their bees and their homes to the fires and the difficulties businesses have been experiencing during this pandemic. On the plus side, OSBA put on a completely COVID-free conference with some really great speakers and demonstrations. Local associations have reached out to their members in creative ways. And I think most everyone is looking forward to 2021 with an attitude of determination to do whatever needs to be done to make it a better year for themselves, their families and neighbors, and their fellow beekeepers. Best wishes from the coast for a hopeful and productive 2021.    

Regional Associations

Central Oregon Beekeepers
In Central Oregon, as I imagine with many places in Oregon, we take either November or December off from monthly meetings as these are frequently times that families get together, either locally or travel. This year felt really odd because of the COVID mitigation and having Zoom meetings. Most folks were home during the entire holiday time and didn’t need to even leave to attend the meetings. That said, we are all quite ready to move on to the next steps of community life, whenever they may be available. We will, for the near future, be continuing with the Zoom meetings. Because of the lack of a beginners’ bee school last year and the obvious want and need for it, we are planning on providing an abbreviated beginners’ school during the first portion of our January, February, and March meetings, followed by a topic of interest to the entire membership.

We had several members who “attended” the OSBA conference and provided glowing feedback of the talks and topics. We’re hoping to have more attendees next year. Thanks to OSBA for organizing and putting it on.

We are also interested in seeing how all of our members succeeded over the summer, both from a honey or hive products point of view as well as from the hive survival point of view. A couple of topics we’re hoping to discuss next year will include defensive colonies, queen/bee losses due to mite treatments, and how honey bees interact with and affect local natural pollinators. Wishing you a happy, healthy, and successful 2021.  

Columbia Gorge Beekeepers
The bees have been bedded down for the winter. Thus far snow has evaded the Columbia Gorge other than a nice layer on Mount Hood. The skiers love the snow, but so do the orchardists as the winter snow melts to become water for our agriculture and people, too. The year 2020 has offered lots of interesting issues, the most significant being the interactions via Zoom; a relatively unknown application prior to 2020, it surpassed many other similar platforms to become the “go to.” Columbia Gorge Beekeepers have endeavored to offer quality speakers for our monthly meetings. Ellen Topitzhofer, Dewey Caron, Judy Scher, Ramesh Sagili, Rick Olsen, and Christopher Adams all graced our members with great presentations in 2020. What is missing is the face-to-face interaction that beekeepers find essential to their growth. Another aspect of the Gorge association in the past has been the pre-meeting opportunity to participate in hands-on experience in one of the Hood River Extension hives. Alas, we must all carry forth to grow in our beekeeping management toward sustaining the population and pollinating the environment. Typically, the Gorge beekeepers do not meet in December and January. Our first meeting, virtually, will be in February. Election of officers was conducted via email with the same slate of officers as 2020 graciously accepting another year.

Lane County Beekeepers
Like all Oregon bee associations, LCBA members are keeping an eye on their winterized bee colonies while dealing with the constraints created by the COVID-19 pandemic on their social calendars. Which is not to say it’s all doom and gloom in Lane County. Honey sales this fall were strong, and the association just voted in new leadership for the coming year. Leadership is working hard to design a new virtual format for our monthly meetings and our annual beginning beekeeper classes this spring. These are certainly challenging tasks, but our leadership group is focused and upbeat.

The 2020 OSBA annual conference deftly demonstrated success in sharing with members the latest research information in a virtual format. So, LCBA is designing its monthly programs using a similar format. LCBA also is working with GloryBee staff to create a virtual classroom for training the next generation of beekeepers in the coming months. Three half-day sessions will be offered over the next three months.

Linn Benton Beekeepers
We have our fingers crossed for a better year for 2021. We are lining up our guest speakers for the new year. Some of your board members have given some good ideas, so we are looking forward and not back.
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We are also debating if we will have a field day in summer or not. Not much news to report at this time. We do wish everyone well and a Happy New Year. Thank you for what each of you do, and keep a good heart.

Ray Juhasz

Portland Metro Beekeepers

As I write this in early December, clouds and wet weather have returned to the Portland metro area. While early December has seen sunny skies and temperatures warm enough for flying and foraging, November had frequent rainy days. As we closed the 2020 season, hives were assessed for mite loads and treated, as needed. Winter food stores were assessed and 2:1 syrup and pollen substitute patties were offered for hives needing additional resources. With cold evening temperatures, bees have started to cluster, which always fascinates me. Reflecting on the behavior of a colony and their tireless efforts to keep the queen and the colony warm throughout the winter and early spring months fills me with awe for these tiny, selfless creatures.

Many of the PMBA members attended the annual OSBA conference in November. I know I speak for many when I say the content, speakers, and topics were all “spot on” this year. Many thanks to the OSBA planning committee and presenters for a stellar event. And the silver lining for virtual presentations is the ability to revisit recorded sessions that I can refer to at my leisure.

With days cooling and bees flying less, opportunistic yellowjackets are found trying to sneak into hives. Make sure your hive entrances are reduced enough for the guards to maintain their vigil and chase off those pesky intruders. I plan to periodically tip my hives to roughly assess their honey stores. Some of us have installed winter feeders/moisture boxes to provide some moisture control and easy access to periodically peek into the hives without breaking the propolis seals.

I’ve switched from Vivaldi boards to a design with moisture control chambers and an easy access compartment for checking for bees and adding sugar candy, as needed (see photo, above). I really like this design for its functionality and ease of checking hives with minimal intrusion.

A friend recently asked me “what does a beekeeper do in winter?” Some are preparing for moving colonies to California for almond pollination. Others, like me, are already planning for the next season. I’m looking back at the past season and assessing where things went well, where I messed up, and what changes I’m planning for the 2021 season. I am looking over all my stored gear, culling old frames, sanding and repainting hardware, planning for needed equipment purchases. I am also checking in with my beekeeping buddies comparing notes and sharing ideas and plans for next season.

With the pandemic showing no signs of abating any time soon, the PMBA will continue to meet virtually. In lieu of the annual holiday potluck in December, we will hold an additional meeting. Meanwhile, we all look to 2021 with hopes of returning to face-to-face association meetings and the anticipation of standing shoulder to shoulder while peering into hives of bees as they work their magic. David Schwartz

Portland Urban Beekeepers

Wow! How did we get through that one?!
With 2020 safely behind us, we begin to plan for spring. For many of us, this is the time to plan our hives, order bees, and figure out where on our property we’re going to squeeze in just one more hive . . .

The fall in the Portland area felt comparatively mild this year—lots of sunny days that had
The Bee Line

The bees flying and still bringing in pollen. Our November meeting featured information from the research of Paul Stamets and his Fungi Perfecti team who collaborate with University of Washington researchers. The possibilities fungi hold for bee health are really exciting. They include increased capacity for bees to fight off viruses and, best of all, high toxicity to mites. Hopefully, easy access to treatments and food additives will be available soon, especially as these products may appeal to beekeepers who are hesitant to use other types of mite treatments.

In December, Dewey Caron hosted a Zoom honey tasting. December is traditionally the month we gather and do a blind tasting of 30+ samples of PUB members’ honey samples and vote on our favorites. This year, not willing to completely give that up, the association opted to share samples of 5 different local and famous types of honey, and have Dewey walk us through how to appreciate each sample. Just like wine, there’s a universal language that can be used to describe honey. PUB members had a lot of fun learning how to really smell and taste the different honey samples. Some of the tastes and aromas included “leather”, “asphalt”, “coconut”, “marshmallow”, “spicy”, “hops”, and “licorice” or “anise”—sometimes for the same honey! Which just goes to show we’re each our own best judge, and it’s no wonder we all think our own honey is the very best of all.

I know it’s too early to feel nostalgic for 2020—the bright light at the end of the tunnel is finally not an oncoming train—but I have to think we’ll look back on it at some point and think about what we came through and it will make us all the more grateful for what we have. And hopefully 2021 will have us hunched over frames, shoulder to shoulder, looking for that ever-elusive queen.

Jessica Anderson

Tualatin Valley Beekeepers

Happy 2021! Tualatin Valley Beekeepers greet our fellow beekeepers in the depths of winter and wish for the best possible overwintering rates for all your colonies. And we hope everyone is staying safe with projected peaks of winter COVID-19 spread. As this text is being compiled, the first vaccine shipments are apparently headed to Oregon and other states, fingers crossed on speedy and successful distribution so we all might be able to have our group meetings face-to-face again sometime this new 2021 year.

Given the pandemic circumstances of 2020, TVBA had a decent year of continuing to provide virtual education and mentorship in 2021, and members elected a dedicated board of directors slate in November to serve during 2021. 2020 finances were solid, and we were happy to be able to give donations to the OSU Honey Bee Lab and several other important honey bee research programs.

We are excited that Dr. Thomas Seeley of Honeybee Democracy fame has committed to giving a virtual presentation on “Darwinian Beekeeping” for our first membership meeting of 2021, beginning at 6 pm on Tuesday, January 26.

Brad York gave a wonderful summation of what was accomplished this year. We had 105 paid members. The website and the honey house paid their own way. Revenues covered expenses. There were 1,152 unique visitors to the website.

The TCCA Farm Store continues to be a distributor of beekeeping products. This means we can walk into the store and get virtually any and all our desired needs met locally. This is a wonderful service which we appreciate greatly. The meeting concluded with the annual honey tasting. About fifteen jars of honey were available. Pretzels were used for dipping. Everyone was amazed at the variety in colors and the wonderful tastes. The association keeps the honeys, and it was decided we need to bring the honeys to more meetings.

There is no meeting in December. January’s meeting will be on “Getting Equipment Ready for Spring” with videos and hands-on projects.

Claire Moody

Tillamook Beekeepers

Due to the COVID crisis, we can no longer meet at the Tillamook library. Our new meeting place is the conference room at the Port of Tillamook Bay. During the summer, we had been meeting outside with hands-on apiary visits on Saturday afternoons. After a membership poll was taken, it was decided we continue to meet on the second Tuesday with an in-person meeting following all safety protocols. Starting in January, the meetings will also be distributed with a live Zoom feed for those who choose to participate from home. Summer meetings would again be apiary visits.

As always, we talked bees. Many people are noticing significant mite drops recently in spite of having treated in early fall. Oxalic acid vaporizations are in progress. One of our members is offering vaporization services, $20 for the first hive and $5 for each additional hive, with a lot of takers! Election of officers was conducted. All current officers were re-elected with the exception that Claire Moody became the new secretary.
in spite of the change in scenery, multiple assessments and property appraisals around the nation have shown that there is no positive or negative valuation effect (A). Sure, some people don’t like the look. But I say beauty is in the eye of the bee holder—and we can all appreciate the aesthetics of clean air and clean water.

Another issue that comes up with regularity is the “why here?” question. Siting of a large-scale solar farm has many limitations. For starters, they must be located on relatively flat or even land within a mile or two from an electrical substation, and the substation has to have available capacity to get the electricity into the grid. For most projects, long-distance power transmission is prohibitively expensive and the economics work out best if the electricity is produced near where it is needed. And with commodity crop prices these days, it’s just smart farming to lease some land for a solar farm so you have dependable revenue. Farm bankruptcies are up and it doesn’t make any sense to deny a farmer their freedom to use their land for an agrivoltaic solar project. Gaining public support for pollinator-centric agrivoltaics will be crucial to helping this movement advance. Whether we like it or not, solar is the future and will be built with gravel, bare ground, ditch grass, or something meaningfully beneficial to pollinators.

Sheep: Friend or Foe?

It’s easy to find photos of solar farms with grazing sheep—it’s a common practice in Europe as well as North Carolina—but are those sheep devouring all the pollinator forage? It’s the method of grazing, not the grazing itself that’s the problem. A practice called Continuous Grazing—putting a herd of sheep out in the solar farm and letting them follow their fancy—is the problem. In addition to eating all the pollinator forage down to the root, Continuous Grazing often results in sheep finding ways to rub on and damage the panels, poop all over the inverter pads, and attract predators. In stark contrast, the practice known as Conservation Grazing, and also known as high-intensity rotational grazing, moves a herd of sheep between paddocks defined by flexible electric fences. Conservation Grazing enriches biodiversity and improves soil health. The American Solar Grazing Association (SolarGrazing.com) recommends Conservation Grazing as a best practice for solar farms.

Looking to the Future

Given the current state of affairs in our industry, including high annual colony losses and disappearing habitat, partnering with pollinator-friendly solar developers will have a huge benefit for both our managed and unmanaged pollinators. It is more important than ever that we work together to help solve these problems. Energy demands and populations are only moving in one direction: upward. The opportunity for synergy between meeting the demands of growth and creating long-term pollinator sanctuaries in every bioregion should be realized. As beekeepers, we have become used to getting the leftovers, margins, fence lines, and meager hedge rows; basically, whatever is not getting sprayed with Roundup or Dicamba. Pollinator-friendly agrivoltaic solar offers us a synergistic path to a much healthier and more prosperous model where pollinators and beekeepers can actually have reasonably prime ground affordably dedicated to long-term pollen and nectar crops.

Best Practices for Solar Farm Apiaries

1. Ensure it is a pollinator-friendly solar site. Ask the developer to provide a completed copy of your state’s pollinator-friendly solar scorecard, or a scorecard from a state with similar climates and soils. When in doubt, contact Rob Davis at the Center for Pollinators in Energy—davis@fresh-energy.org.

2. Have more than a handshake. Draw up an agreement with the landowner or solar company that includes the apiary location and your right to access, any planned movement of the hives, as well as price and pre-payment arrangements for a portion or all of the honey.

3. Offer professional packaging options. Many solar companies will love to have their name or the project name on a jar or other packaging option that they can share. Some solar companies are even providing honey to the people who get electricity from the site.

4. Location, location, location. Place and orient the hives to ensure bee droppings do not accumulate on the panels and bees do not interfere with regular operations and management. Request to closely inspect nearby panels for droppings at least once per year.

5. Know the landscaper or ecologist. Exchange phone numbers with the vegetation management contacts, and agree upon who will be managing the vegetation near the hives to be free of any invasive or noxious weeds.

6. Keep it separate. Extract and keep the honey from the pollinator-friendly solar farm separate from the honey harvested from other bee yards. Consumers strongly support solar energy and creating habitat to help save the bees. Honey from solar sites encourages the adoption of pollinator-friendly solar as a best practice.

7. Take precautions. Have liability insurance and provide a copy to the landowner and/or solar company. Install two or more swarm traps at 6 feet off the ground nearby.

8. Engage with local media and the community. Partner with clean energy nonprofits and the solar company to educate more people about the importance of solar sites that provide healthy forage. Take and share photographs and video of the site. Tell a story with each shot by including the flowering vegetation, the bees or hives, and the solar array. Tag your social media posts with #BeesLoveSolar.
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 March issue, 2021. The deadline for submitting copy is February 10, 2021. 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!

Best Wishes of the New Year!

When the flower blossoms, the bee will come.

—Srikumar Rao

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