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April 2018 LCBA Newsletter

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Questions? Suggestions? Resources you'd like to share, stories you'd like to tell? Please contact LCBA Secretary Susanne Weil: secretary@lcba.community or call 360 880 8130.

UPCOMING EVENTS

Thursday, April 12: LCBA Monthly Meeting Kevin Mills, Hive 5 Bees: Raising Northwest Queens



Above, Kevin and Amanda Mills, Hive 5 Bees

Where: Centralia College, Washington Hall 103; 701 W. Walnut, Centralia, WA 98531

When: Social Time, 6-6:30 pm; Speaker, 6:30 – 7:30 pm; Business Meeting, 7:30-8:45

What: Kevin Mills, owner of Hive 5 Bees and the Mills Diner, will share his adventures in raising queens adapted for our Pacific Northwest conditions. Followed by business meeting.



Thursday, April 19: Tentative Bee Pickup Date

For LCBA members who ordered through Beeline;

JC Bees orders will probably arrive 1st week of May;

FOR ALL ORDERS, PLEASE CHECK FOR EMAIL UPDATES!

DID YOU KNOW? IF YOU REGISTER YOUR HIVES WITH WSDA, YOU CAN GET SALES TAX WAIVED ON BEES & WOODENWARE: to get this benefit, you must produce your proof of apiary registration. A portion of apiary registration fees supports the WSU APIS lab. Here is the link: https://agr.wa.gov/FP/Forms/PP/docs/6116-APIaryRegistration_2018.pdf



Above right, honey tasting challenge at last year's Spring Youth Fair.

**Saturday, May 6 & Sunday, May 7:
Spring Youth Fair, SW WA Fairgrounds
LCBA Exhibit - Exposition Hall**

When: Sat May 5, 10 a.m. -10 p.m.; Sun May 6, 10 a.m. - 5 p.m.

For the 5th straight year, LCBA will have an exhibit in the Exposition Hall to help introduce children to honey bees and beekeeping. We'll have our Observation Hive, plenty of show & tell items, & a honey tasting challenge: "can you tell which is the Carrot Blossom honey?" Our Youth Scholarship students will be volunteers at the booth - & if LCBA members would like to participate, please contact Community Outreach Coordinator Dan Maughan about times, tickets and parking passes: ultramafic@netzero.net . For more info about the Spring Youth Fair, visit their website at www.springyouthfair.org

Thursday, May 10: LCBA Monthly Meeting

Debra Langley-Boyer, West Sound Beekeepers: Slovenian A-Z Hive



Above, Slovenian AZ Hive (<https://www.mybeeline.co/en/p/whats-the-buzz-about-slovenian-az-beehive>)

Where: Centralia College, Washington Hall 103; 701 W. Walnut, Centralia, WA 98531

When: Social Time, 6-6:30 pm; Speaker, 6:30 – 7:30 pm; Business Meeting, 7:30-8:45

What: Debra Langley-Boyer will share information about the AZ Hive: in this design, bee colonies are placed in a covered house or shed; hives open from the back, enabling beekeepers to remove frames one at a time without lifting heavy boxes. Your back may be interested in this presentation! Followed by business meeting.

Saturday, May 26: Late Spring Management Workshop



Above, Cody Warren leading a hive inspection at last year's spring management workshop.

Time: TBA, but probably we'll start around noon

Place: Please email secretary@lcba.community for address & directions.

Topics: Working with this year's installed packages and nucs to assess & aid colony development, prevent swarms, & more. Please bring your questions, and of course your protective gear; LCBA will provide refreshments

**Saturday May 19 –
Sunday May 20:
TRIFECTA BEE
EDUCATION EVENT
IN HOOD RIVER, OR.**



What: Tom Seeley (*Honeybee Democracy*) & other entomologists will lead hive inspections & speak on their honey bee research. Topics will include: Honey Production; Bees & Agriculture; Honey Bee Hygenics; & more. Sponsored by Brushy Mountain/Ruhl Bee Supply. The guest speakers' hive inspections will be at a special "pre-event" that you must reserve specially as part of your reservation: limited seating available, \$49.37 per person. For details on times, visit the registration URL below.

Where: Best Western PLUS Hood River Inn in Hood River, OR

Price: \$95.88 To register, visit: <https://www.brushymountainbeefarm.com/trifecta-beekeeping-event>. For lodgings, the Best Western PLUS Hood River Inn is offering a discount rate for this event. When making your reservations, please specify the code "BGBees".

Friday, June 15, & Saturday, June 16
WSU Queen Rearing and Bee Breeding Workshop



Above, Sue Cobey leading queen rearing class.

Where: Washington State University, Pullman campus

What: “Ready to take beekeeping to the next level? For those of you who already have a working foundation in beekeeping, WSU’s bee team is offering an event to introduce you to fundamental tools for stock improvement. This workshop is designed to improve your understanding of queen rearing, bee breeding systems & selection methods through a combination of presentations and hands-on demonstrations. We will also introduce you to the more advanced techniques of instrumental insemination and cryopreservation. Plan on two all day meetings. The time of day and schedule of activities will be sent with your registration confirmation.”

Instructors: Susan Cobey, Jennifer Han, Brandon Hopkins, Melanie Kirby, Tim Lawrence, Nick Naeger and Steve Sheppard. **Registration** is \$275/person. To register, visit: <https://app.smartsheet.com/b/form/02420575d11d476d88252d9e90cec89f>

Questions? Please call WSU’s Department of Entomology at 509-335-5422.

Saturday, July 14: LCBA 10th Annual Summer Potluck

Come enjoy good food, good fellowship, & talk bees. Honey recipes always welcome!

When & Where: 4-8 p.m. [FYI, it may start earlier – see May Newsletter for updates], Lintott Alexander Park, Shelter #2; 1101 Riverside Dr, Chehalis.

Facilities: We’ll have 10 large picnic tables & benches (altogether, facility can accommodate 100), wood-burning stove, electrical outlets, outdoor faucet, garbage cans/liners.

Please bring: A dish to share, plate, cutlery – and family! LCBA will provide water, pop, napkins. Park management requests no alcohol at this event.

Drawing for 2019 Youth Scholarship Program: Bee gear, gift certificates, & fun items will be available for those who buy \$1 drawing tickets. If you’d like to help, please consider bringing an item to donate!

2018 Lewis County Extension Workshops

WSU Lewis County Extension has a wide array of workshops planned for 2018. Class costs will vary and be announced as class details are finalized. Save the dates to join on any or all of the dates below. The folks at Extension hope to see you there!

For details, visit: <http://preservesummer.cahnrs.wsu.edu>. For more information or to register contact Kim Weiland 740-1212 or email kimberly.weiland@lewiscountywa.gov.

Workshop Schedule: April 20 Heritage Cooking, location TBD

First Tuesdays with WSU Lewis County Extension Services

WASHINGTON STATE
UNIVERSITY
EXTENSION

**First
Tuesdays**

with WSU Lewis
County Extension
Service

Tuesday, April 3
10:00 am – 2:00 pm
Adults

Representatives from the WSU Lewis County Extension Service Master Recyclers, Composters, and Gardeners will be at the Salkum Timberland Library the First Tuesday of each month from 10 a.m. until 2 p.m.

Bring your questions about Soils, Plant Identification, Composting, and Extension Service Workshops and Trainings, and chat with people knowledgeable about our local homestead challenges!

Salkum Timberland Library
2480 U.S. Highway 12, Salkum, WA 98582
360-985-2148 | www.TRL.org

When: Tuesday, April 3, 10 a.m. to 2 p.m.

Where: Salkum Timberland Library, 2480 Highway 12, Salkum WA, 98582

What: Representatives from the WSU Lewis County Extension Service Master Recyclers, Composters, & Gardeners will be at Salkum Timberland Library on first Tuesdays of each month to answer questions about soils, plant identification, composting, & Extension service trainings & workshops. Come chat with people knowledgeable about our local homestead challenges!



BeeInformed 2017-2018 Colony Loss & Management Survey

Take the survey now! Visit:

<https://26.selectsurvey.net/beeinformed/TakeSurvey.aspx?SurveyID=LMS2018#>

Calling Lewis County Beekeepers – Please Participate in This Important Honey Bee Research Survey! Dr. Dewey Caron will give us our own local results at our October 2018 meeting – the more of us who participate, the better we will see how we fit into the picture of PNW Bee Losses.

BeeInformed Writes: “You’re busy! We know that. You’re out catching swarms, picking up packages, and checking your colonies! So grab a coffee or tea, sit down, relax, AND.....take the Survey Today!

“The information that you provide will be invaluable to our understanding of honey bee health around the country. As background, the BIP’s National Loss Survey was launched for the first time in 2006, and thanks to the many thousands of beekeepers who have participated since then, we have been able to document and better understand long-term honey bee colony loss trends. Check out the interactive state loss map as evidence!

“In 2010, BIP’s National Management Survey was added to help us understand how management practices are potentially linked to colony survivorship. Thanks to your answers, we have been able to develop a dynamic management data tool. Feel free to play around with the interface. Want to know how colony losses compared between beekeepers that DID or DID NOT use a varroa treatment? Or what about the average age of comb in colonies? It’s all there!

“Please help us to develop more helpful tools for you by clicking the link [above] to take this year’s National Colony Loss and Management Survey. If you would like to prepare yourself for our questions, or want to take some notes while you’re looking at your colonies, download this PDF to have a look at the 2017 – 2018 National Colony Loss and Management Survey Preview. Note that this preview should serve as an aid to the questions that are asked on the survey. Please, do not mail this preview version back to us. Please take the online survey! Many thanks to all previous participants, and to all you new-Bees for taking some time out of your busy schedule to fill out this year’s survey.”



Above, Gottfried Fritz assesses a frame with Kenzie Anderson at a 2017 LCBA Workshop.

Notes from LCBA's March 8: LCBA Monthly Meeting

Speaker, Gottfried Fritz: Assessing Colony Survival in Early Spring

LCBA President Kevin Reichert introduced Gottfried Fritz, who has been keeping bees for over 50 years. Despite his experience, Gottfried does not consider himself an expert on overwintering bees in Washington – he has been keeping them here for five years, so he is still learning. Those who've kept bees for many years here have had more time to compare outcomes, so Gottfried invited participants to comment.

Microclimates Matter: Of all the places he's worked with bees, Gottfried finds southwest Washington the most complex. He moved here from the Sonoma wine country in California, where he was used to hearing vintners talk about microclimates for growing wine grapes; here in Lewis County, microclimates matter for bees. Gottfried worked in South Dakota from 1962-68, but they didn't really overwinter bees there since they stayed from spring through honey harvest, after which they moved their bees to Texas for winter. Then in 1972-83, he lived in Phoenix, where some of his students asked for a beekeeping class: in that climate, there were some blooms year round, and honey production is at its height in March and April. In 1972-83, he helped friends with colonies in San Diego, where few winter stores were needed, winters were sunny and mild, and weather allowed lots of cleansing flights.

From 1983-87, Gottfried lived in Colorado's Rocky Mountain front range, where there are few months with very cold nights; there, bees need ample stores, but enjoy many clear days for cleansing flights in winter. They were able to leave hives completely undisturbed for 3 months! Then, in 1988, Gottfried moved to Sonoma, California – the "Eden of the Earth," according to Luther Burbank. With a young family, he had no time for hives of his own, but he had friends whose bees worked the almonds and oranges each year, and he worked some hives with them. This was the first time he encountered Varroa mites.

Then, in 2013, Gottfried “moved to the land of drizzle and humidity.” He came here with a few nucs, and his true learning about complexity and challenges of overwintering bees started. His observation is that the main problems include winters mild enough for colony to use stores, but weather uncertain enough to limit flights, and lack of cleansing flight opportunities compounds disease. During his first November here, he made his first mistake – he was feeding liquid syrup, which bees can’t fan down into honey when it’s too cold for them. He checked his bees, and then, when he checked again in early January, they were gone. He learned “not to fool around with bees much in the fall.” In the cold, too, bees won’t move around in the hive, out of the cluster, so they actually can starve with honey nearby.

Steps to help bees make it to spring: #1, choose the right place! First, Gottfried emphasized, in helping bees surviving winter, the key is location, location, location. For example, in that first year in southwest Washington, he visited a former student who asked for help with his bees: his friend had situated them in a hollow surrounded by trees. With winter sun low on horizon, those hives down in that dip did not get light. So...don’t put your bees in a dip!

Step 2: Try to provide some shelter from direct rain. Putting bees under a shed can really help. Also, ***#3, use moisture boards or ventilation spaces. 4th, do not disturb brood frames when temps are below 50 degrees. 5th, feed solid patties or blocks: get in and out fast,*** lifting only moisture boards, etc. (All of these issues received ample discussion below. . .)

Conclusions: Western WA is one of the most difficult overwintering locations that Gottfried has experienced or heard about because the conditions and timing of weather are very unpredictable. He now wants to combine weak hives in fall, noting that the moisture will take down weak colonies in almost all cases, no matter how much you baby them. It may seem cruel, but in September, assess, and combine – it’s better to have one strong colony than two weak – and ultimately, dead – colonies.

Suggested Timetable - To Bee Debated!

1. No liquid feed after October 1.
2. Start checking and feeding solid supplies between Thanksgiving and Christmas.
3. Three to four week intervals between checks.
4. Do not move any frames looking for queen until temperatures are consistently in the mid-50s, possibly late February.
5. Look for queen and brood pattern around late March.

An Interactive Exercise With Photo Evidence: Gottfried designed an interactive sequence of “puzzle photos” for us. To understand the photos, it’s necessary to know the context: Gottfried had been helping a young couple who had bees next door to a day care center. The day care

center's proprietor was nervous about bees; on their other perimeter was a woman who was deathly afraid of bees. What to do? Along the fence, they planted juniper trees to deter bees from flying into adjacent yards (see photo below). Then, they put the bees up near the couple's house on the north side of the property, with a juniper hedge on one side. Gottfried took these photos on the Monday prior to our meeting. He fed their bees Dan's winter pollen patties, but with only half the pollen so as not to overstimulate the queen to lay before there was enough forage to sustain a larger colony. He noted that sometimes the bees will cluster in odd spots, as seen below, or will just lump themselves on one side of the box:



Above left, the bees were over-wintered under a roof in an open breezeway; right, bees in odd cluster on the bottom of the moisture control box. Below, bees were looking good going into the last part of winter, lots of bees eating winter patties (left) and plenty of ventilation (right):



Suggestion time: Gottfried posed us a problem to solve, but first, he described the situation of the bees in the hive near the raised beds in the photo, above. The queen in the hive was a nice little blonde Italian from a split he had made and gave to the couple. Within a month, they had expanded into two brood chambers, but then, in July, the bees swarmed 50 feet up into a fir tree. It was a big swarm, but Gottfried realized that the queen had left a good daughter behind because the colony rebuilt their numbers fast, and even produced a super of honey. By September, there were probably 70 pounds of honey in those bottom brood chambers. The bees had been all ready for the rest of the winter after Gottfried checked them midwinter and fed them patties. But then,

when they checked the bees before this meeting, they discovered, to their dismay, that this colony had died – see the photos below:



Above left, on opening the box, they saw telltale poop streaks; closer up, right. Below, dead bees with their heads down in the cells; below right, an adjacent frame with untouched honey stores:



What Went Wrong? Gottfried asked us what factors could have led to this sad outcome? Youth Scholarship student Austin Nelson noted that in the yard, the trees were blocking the sunlight, even on a sunny day (see photos on the next page). Gottfried noted that this was indeed a factor, since the lack of sun meant that once moisture entered the hive in winter, the bees never could get dried out.

Terrie Phillips commented that when the weather changes suddenly, the bees may not be able to re-cluster: Gottfried agreed, noting that when cold nights and rainy days don't allow bees to fly, they are very restricted.

Another possibility was brought up by Steve Howard and Mel Gregorich: did the Vivaldi box on top have enough shavings to help insulate the bees? Gottfried noted that more shavings would absorb more moisture, but the vent holes musn't be blocked (see photo above).

Dan Maughan wondered if the patties might have required them to poop, but the weather prevented them from doing enough cleansing flights: Dan had about 40 hives that did this exact same thing. Gottfried pointed out the poop streaks all over the top of the box, evidence that supported Dan’s observation – these bees clearly suffered from dysentery, brought on either by inability to fly outside and perhaps compounded by Nosema. Another issue Gottfried himself pointed out: he had removed the mite boards, so that might have contributed to the cold.



Above, the “situation” photos Gottfried discussed: in the photo on the left, we’re looking south; in the photo on the right, we’re looking north. Shade was a challenge for these bees.

Kevin pointed out that when you see bee butts sticking out, the bees were trying to climb into the cells to stay warm. This can happen when the cluster gets too small to maintain warmth naturally. Dan commented that in previous years, if he had fed colonies through winter, they gained slowly in numbers, but not this year, and he did not know how to stop it: some colonies went from substantial to dead. Dan wondered if he might have a queen issue. Terrie noted she has never re-queened and has colonies that have been with her since she started beekeeping six years ago, which Gottfried noted is remarkable success.

Linda Bartlett asked Gottfried how they had treated for mites: Gottfried said that they had treated with Mite-Away Quick Strips (MAQS) in mid-September. However, since MAQS’ effectiveness is limited by temperature, the colony may not have derived enough benefit from the treatment.

Some General Early Spring Management Issues: Gottfried pointed out how important it is to sweep the bottom boards to remove dead bees every month or so in winter, so that dead bees don’t block the entrance and prevent the survivors from taking cleansing flights. This may be startling to new beekeepers: “You may think a holocaust happened if you sweep in November, because you’ll see the last fall bees dead,” Gottfried said, but that is normal – it’s the bees that emerge in late September/early October who over-winter with the queen, and they too will die off gradually.

Reversing Hive Boxes – When? Gottfried advises not switching the boxes too early. The benefit of switching boxes is that bees tend to move up: by the end of spring, the bottom boxes’ stores

are likely exhausted, leaving plenty of room for the queen to lay, so we “swap boxes,” moving the bottom one up. However, Gottfried noted, it is important NOT to do this until the brood chamber is well established. No matter what you do, don’t break up the brood chamber – if there is a cluster of brood between the hive boxes, and you move the bottom box up, you’ll have part of the brood on the bottom of what’s now the lower box and part of the brood on the top of what’s now the upper box. With the brood chamber spread out like that, the nurse bees won’t be able to keep the developing baby bees warm.

Early Spring Mite Control: In response to a question about Varroa management, Kevin suggested treating bees before the brood cycle really takes off: that way, you are hitting the phoretic (hitchhiker) mites on the adult bees and don’t have to worry about finding a treatment to penetrate the brood. Kevin asked “Dan the chemical guy” what he puts in: Dan replied, “Whatever makes them feel good.” But seriously, Dan treats fall and spring with Apivar. He wondered if the death losses his apiary suffered this winter resulted from not having treated until August – before that, he had supers on for buckwheat honey.

Treating Package Bees With Powdered Sugar: Cody Warren noted that when he gets a package, before he even puts it into the hive, he puts it on blocks with cardboard below, then dusts the package with powdered sugar. He finds that gets the cardboard covered with dead mites: it’s a good way to knock them down. Cody pointed out that we could also use oxalic acid vaporizing to knock down mites once the bees are hived and before the queen can start to lay, taking advantage of that “broodless window.” Larry Kerschner asked how many times to treat for mites; Kevin said to treat once with oxalic acid vapor.

Question: Would It Help To Put Hives Inside a Greenhouse? Kevin answered that many beekeepers do put bees under roofing for winter to help cut the moisture and give better cleansing flight opportunities, but he cautioned not to put them indoors - if you give bees a warm place, they will think it is spring, and the queen will lay, but there will be no forage. Dan noted that the bees get confused in a greenhouse because there is so much light above: they will fly up and get stuck. That happened when he had his bees under a clear plastic roof.

Is Shelter Necessary? Terrie commented that she has not lost any of her bees, yet they are out in the open with regular telescoping lids. She has checked her moisture boxes regularly and has given hard candy. She has tar paper on the ground to keep grass from growing up under the hives, and it’s black, reflecting sunlight, so that may help with heat a little.

How Soon To Feed Pollen Patties: Gillian Davis asked when to place pollen patties on the bees. Kevin said he put on hard candy last weekend. In a regular year, probably it’s best to wait on giving pollen patties until the end of March, but it varies from year to year based on weather and what nectar is flowing. Gottfried commented that we are also in a pollen dearth just now (as of the March meeting), so supplementing with patties is helpful once there is enough forage to sustain the new bees.

How Can Bees Be Moved? Gottfried and Kevin noted that the best time to move colonies is right now because they have not been flying, so they will not be confused about their location when they come out. To move hive boxes, you can use the two-person lift device, or use straps or, as Dan said, “Just tell your boy to do it.” 2017 Youth Scholar Adam Claridge said that he had to move his colony because of a construction project: he did it at night, and the next day, the bees tried to fly back to their old spot, but eventually they figured it out. Cody noted that when you move bees in late spring through early fall, it is important to help bees realize they are in a new location by partially blocking the entrance with twigs: otherwise, the bees will zip out, then try to return to the old location and miss the colony completely.

March Business Meeting Notes



Above, the club’s new observation hive (see below). Yes, those are Google Chrome and Word icons; no, the bees will not have internet access – the hive was placed in the line of the projector beam, so this was what should have been on the bottom of the screen!

New Observation Hive: LCBA President Kevin Reichert announced that the board has decided to replace our club’s observation hive. After years of wear and tear at the Southwest Washington and Spring Youth Fairs, despite several repairs, it is no longer in good shape. Also, it was hard on bees during transport (some got squished between comb and glass), and we have concerns about the possibility that given its height, it could be knocked over. Dan shopped around and got our new observation hive from John Edwards at Ruhl Bee Supply (Brushy Mountain) for \$138: it is the nuc box design with one raised frame that John demonstrated at our February 2017 meeting (see photo, below). It is much more stable and provides better ventilation for the bees. Bob is going to stain it.

Treasurer’s Report: Kevin gave the report for Rick, who was cataloging bee sales figures during the meeting. LCBA’s checking account balance is \$5,658.01; the Youth Scholarship fund balance is \$2,922.86; and the savings account balance is \$5,000.77. The checking account balance has risen thanks to dues, nametag payments, etc. We wrote a \$10 check to WSDA to register the hives in the club apiary – registering the hives meant that sales tax was waived for

the three packages and one nuc that the club is buying for the apiary. The cost for the new colonies is about \$470. Kevin Mills is planning to donate three nucs to the apiary, and Alan Woods will donate one as well. Our goal is 10 colonies to facilitate our workshops. Finally, we will need to write a check for club liability insurance: \$612, due at the end of March. The insurance company has not raised our rates.

Bee Sales: Rick was still verifying the precise figure, but it looked like this meeting's bee sales total is \$28,588.19. Bee pickup is projected to be April 19 at Beeline and sometime during the first week of May for JC Bees, but members are asked PLEASE to be prepared to be flexible: weather in California could push the date back in the case of Beeline orders; JC Bees might be as early as late April. As soon as the board receives confirmation of the shipping date, an email will be sent to all who ordered. We will update as possible at the April 12 meeting.

Mentorship Report: Mentorship Coordinator Cody Warren again passed around a list for new members to request mentors: so far 24 have requested mentors. He will match new members with a seasoned beekeeper in their area. Cody asks seasoned beekeepers who would like to mentor to check with him.

Education Report: Education Coordinator Peter Glover reported that one of our four Youth Scholarship students, Cassidy Armstrong, has had to leave the program: her family is moving to Ellensburg in early June. She has completed the course, and we are connecting her with the beekeeping association in Yakima. Our beginning beekeeping class has finished: those who had completed the course receive certificates, which were distributed at this meeting. Peter noted that more tests have been coming in by email, and there will be more certificates to give out at our April 12 meeting. The college has paid the club \$1420 (70% of course tuition). Gail Bayne thanked the volunteers for teaching. There was a question concerning club outreach for the course: many wanted the course, but did not hear in time. Susanne explained that we ask the *Chronicle* and *East County Journal* to include the class in their calendar section; we distribute fliers at the Spring Youth and Southwest Washington Fairs; Lewis County WSU Extension posts our notices to their mailing list; and we advertise the class on our website and Facebook page (the latter has over 770 followers). We are not sure what more we could do to publicize the class: with over 50 students taking the course both this year and last, we may not need to do more.

Community Outreach Report: Community Outreach Coordinator Dan Maughan announced that LCBA will again have an exhibit at the the Spring Youth Fair, May 5-6. Our Youth Scholars will be volunteers, and a signup sheet for club members will be passed around at our April meeting. Dan noted that the Youth Fair is a great opportunity to get kids excited about bees. There was a question about whether we will pursue a gear exchange event; Dan is weighing pros and cons, as the question of whether it's responsible for the club to promote used gear, which may have spores or other contamination. We may mount a page on the club website for people to offer items for sale with a cautionary note about flaming or bleaching used woodenware.

Did You Win a Linden Tree at the Holiday Potluck? Gottfried announced that the linden trees donated by Burnt Ridge Nursery will be available at the April meeting.

Back to Bees: Several members asked questions about how this seemingly endless winter with its cold temperatures may affect our over-wintering bees' development. Dan and Harold Weaver both noted that it isn't clear how far behind we are yet.

Apiary Report: Cody delivered the sad news that we have lost all but the top bar hive. That colony started as a grapefruit-sized swarm; now, it has drawn out 12 bars. He gave them sugar and a pollen patty last week. See above, Treasurer's Report, re: plans for adding colonies.

"Pros and Cons of Feeding Dry Pollen Substitute," from BeeInformed Partnership Blog, Ben Sallmann, March 12, 2018

"Most beekeepers have come to realize that due to lack of natural forage in our urban and agricultural landscapes, feeding pollen substitute has become necessary to keep bees healthy in most parts of the country. Last summer was an especially challenging season in the West due to extremely hot and dry conditions. Despite a wet spring in California and Oregon last year, the spigot was shut off abruptly early in the summer and what little forage was available quickly shriveled. Beekeepers who had not been providing supplemental feed saw their colonies dwindle as the summer went on. Although it's still early, this year is looking like it could be similar.



Above, "Foragers collect dry pollen sub from a commercially available feeder"

"One strategy I have been seeing more of in recent years is bulk dry feeding of pollen sub. However, as with any beekeeping technique, there seems to be as many detractors as proponents. Most beekeepers still rely heavily on protein patties to speed build-up early in the spring and ensure well-fed fat winter bees as the weather cools. Dry pollen feeding is gaining adherents because of the following advantages.

"First, a dry pollen feeder can be a welcome distraction for aggressive, "robby" foragers late in the summer. Rather than picking on each other, the bees can stay busy collecting the dry pollen. It's more fun to see bees diving headlong into a pile of dry pollen sub rather than killing each

other at the hive entrance while attempting to rob. The static charge on the bee's body attracts the pollen grains which are then combed off and put into their corbicula (pollen baskets).



Above, a homemade pollen feeder made from an old steel barrel

"This brings me to the next advantage of dry feeding; unlike patties that are put into the hive, dry pollen sub is stored for later use. There is some disagreement about whether the artificial pollen ferments the same way and provides the same benefits as true bee bread, but at least it remains in the hive for later use. Protein patties are eaten directly and not stored, possibly because of the added sugar and soft consistency. Also, while patties are very attractive to small hive beetles, dry sub in a feeder is generally ignored by this pest.

"For beekeepers who are short on time, feeding bulk dry pollen requires way less time and energy compared with putting on patties. It does not require the beekeeper to disturb each colony or lift any boxes. There are many dry pollen feeders on the market, but with an old barrel and a little ingenuity anyone can make one. Feeding the bees in this way just involves opening the bag of dry sub and dumping it in. For small-scale beekeepers with a few hives, a simple feeder can be made from a plastic juice jug or other container set on its side with the bottom cut out.

"I do not think dry pollen feeding can replace patties entirely, as there are some significant drawbacks to this method. First, the colonies will not collect dry pollen equally, and the beekeeper cannot control how much each hive is getting. Some colonies may go crazy for it while others may ignore it completely. With patties, the beekeeper can ensure that each colony is at least getting some protein. Another worry with dry pollen feeding is the chance of diseases spreading, also a concern with barrel feeding of sugar syrup. Wherever bees from different colonies are commingling, there is increased risk from bees defecating and dying in the feeder.

"Feeding pollen patties still has many advantages and won't be going away anytime soon. All in all, I think dry pollen sub feeding is a useful practice but not a total replacement for protein patties. During a pollen dearth or when robbing is a problem, it can be especially useful. As we learn more about bee nutrition, I expect better quality pollen supplements will be introduced into the market. This will go a long way in ensuring our bees have their nutritional needs met."

Original column: <https://beeinformed.org/2018/03/12/pros-and-cons-of-feeding-dry-pollen-sub/>

HONEY RECIPES OF THE MONTH

Curried Honey-Glazed Chicken Wings [National Honey Board]

INGREDIENTS for 4 to 6 servings:

- 1 cup honey
- 1/2 cup crushed tomatoes
- 2 tsp. curry powder
- 1/2 tsp. ground cumin
- 1/4 tsp. ground cayenne
- 1 T apple cider vinegar
- 2 1/2 lbs. chicken wings



DIRECTIONS:

Combine honey, tomatoes, curry, cumin and cayenne in the food processor and puree until smooth. Transfer to a saucepan and bring to a boil. Boil, gently, over medium low heat, stirring occasionally, 10 minutes. Remove from the heat and cool to room temperature. Stir in the vinegar.

Meanwhile cut the chicken wings in thirds, cutting at the joints. Discard the wing tips. When the glaze has cooled combine the cut up wings and the glaze in a large heavy duty self-closing bag. Refrigerate, turning the bag once or twice, several hours or overnight.

When ready to cook the wings preheat oven to 375°F. Line a large rimmed sheet pan with heavy duty foil and spray the foil with non-stick spray. Lift the wings from the marinade and arrange on the prepared baking pan. Transfer the remaining marinade to a saucepan and bring to a boil. Reduce the heat to low and boil gently 10 to 15 minutes.

Bake the wings, turning twice and brushing with the boiled marinade, every 15 minutes. After 35 to 45 minutes the wings should be nicely browned and glazed. Serve either hot or at room temperature. (Recipe courtesy of Marie Simmons, cookbook author.)

Honey Sriracha Grilled Wings [National Honey Board]

Ingredients for 8 servings:

- 2 cups honey
- 4 lbs. fresh chicken wings
- 3 cups rice wine vinegar
- 1/4 cup Sriracha
- 2 T salt [directions next page]



Directions for Honey Sriracha Grilled Wings:

Place wings in a large bowl and rinse with cool water. Add rice wine vinegar, sriracha, salt and 1/2 of the honey. Fold to incorporate all the ingredients and coat the wings evenly.

Using the slow and low method of BBQ'ing, set grill temperature to 225-240°F. If using coals, let them burn off and move over to one side of the grill.

Place the wings on the grill, cover with a lid and cook for 12-14 minutes before turning once and letting them cook for an additional 15-18 minutes. Open the lid and turn the wings one more time. Brush the remaining honey onto the wings. Let the wings cook for 5-8 more minutes, remove from heat and serve them up hot and juicy!

BEES IN THE NEWS

Thanks to Gillian Davis, Steve Norton, and Phil Wilson for sending stories!



Above, a European apiary – photo, Bee Culture’s “Catch the Buzz”

Neonicotinoids: Risks to Bees Confirmed": Bee Culture magazine reports that the European Food Safety Commission has evaluated the research and concluded that neonics harm pollinators. Here is the story:

"Most uses of neonicotinoid pesticides represent a risk to wild bees and honeybees, according to assessments published today by EFSA. The Authority has updated its risk assessments of three neonicotinoids – clothianidin, imidacloprid and thiamethoxam – that are currently subject to restrictions in the EU because of the threat they pose to bees. These new conclusions update those published in 2013, after which the European Commission imposed controls on use of the substances.

“For the new assessments, which this time cover wild bees – bumblebees and solitary bees – as well as honey bees, EFSA’s Pesticides Unit carried out an extensive data collection exercise, including a systematic literature review, to gather all the scientific evidence published since the

previous evaluations.” For details on the new findings and recommendations, visit:

http://www.beeculture.com/catch-buzz-neonicotinoids-risks-bees-confirmed/?utm_source=Catch+The+Buzz&utm_campaign=c31ddbfc6a-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-c31ddbfc6a-256261065



Image above from ManukaHoney.

"Some Neonicotinoid Pesticides Are More Toxic To Bees Than Others: Here's Why": WASBA's Items for Beekeepers, March 2018:

“You've probably heard that the safety of neonicotinoid pesticides to bees is a matter of considerable controversy. However, neonicotinoids show varying toxicity to bees. Now, researchers reporting in the journal *Current Biology* on March 22 have new evidence in honeybees and bumble bees that helps to explain why bees differ in their sensitivity to different neonicotinoids.

The study by researchers at Bayer AG (a company that manufactures neonicotinoid insecticides), the University of Exeter, and Rothamsted Research shows that differences in pesticide sensitivity result from differences in the way that metabolic enzymes involved in the bees' defense against toxins break down particular pesticide chemicals. The findings suggest that it may be possible to specifically design pesticides that are toxic to insect pests but not to bees, the researchers say. The study was supported with funds from Bayer AG.

"Honeybees are more than 1,000 times less sensitive to the neonicotinoid thiacloprid than imidacloprid, with the latter classified as 'highly toxic' but the former categorized as only 'slightly toxic' or 'practically non-toxic' according to the official categories of the US Environmental Protection Agency," says Chris Bass from the University of Exeter, United Kingdom. "By utilizing genomic information and state-of-the-art molecular and biochemical techniques, we show that in both honeybees and bumble bees, this selectivity is determined by closely related enzymes, which rapidly break down thiacloprid before it impacts the bee nervous system. Those same enzymes have little to no capacity to break down imidacloprid--thus explaining the differences in bee sensitivity to these compounds." To read more, visit: *Current Biology*, Manjon, Troczka, and Zaworra et al.: "Unravelling the Molecular Determinants of Bee

Sensitivity to Neonicotinoid Insecticides" [http://www.cell.com/current-biology/fulltext/S0960-9822\(18\)30230-6](http://www.cell.com/current-biology/fulltext/S0960-9822(18)30230-6)

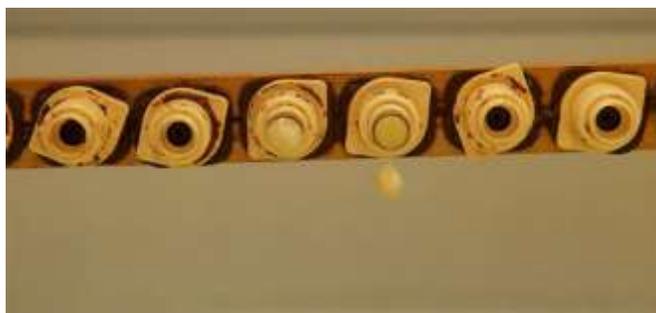
"Familiar Hover Flies May Be Transporting Honey Bee Diseases From Flower To Flower": Bee Culture Magazine, March 16 2018 –



Common Hoverfly ~ photo, Bee Culture magazine

"The brightly-colored flies may be picking up bee viruses as they forage at the same flowers. And scientists think hoverflies could then be spreading the deadly infections long distances when they migrate. . . . It's not clear if hoverflies are harmed by the viruses or are simply carriers, but, either way, they could be moving them around the countryside and over long distances, say UK researchers." For details, visit: http://www.bee-culture.com/catch-buzz-familiar-hover-flies-may-transporting-honey-bee-diseases-flower-flower/?utm_source=Catch+The+Buzz&utm_campaign=e1b5cafbc6-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-e1b5cafbc6-256261065

"How Royal Jelly Helps Honey Bee Larvae Defy Gravity and Become Queens" - fascinating story from American Bee Journal, March 15 2018:



Above, "Two cells with royal jelly. The 3rd cup from the left has royal jelly with a pH of 4.0, while the 4th cup has a pH of 5.8. When turned upside down, the larva falls out of the 4th cup. Credit: Buttstedt et al., *Current Biology*."

"Honey bee larvae develop into queen bees only when they are fed large quantities of royal jelly. But royal jelly does more than determine whether a larva becomes a queen: it also keeps her safely anchored to the roof of the queen cell in which she develops. Research published in *Current Biology* on March 15 explains the role that the pH of royal jelly plays in making the substance viscous enough to keep the queen-to-be from falling." To read the details, visit:

The study in *Current Biology*: [http://www.cell.com/current-biology/fulltext/S0960-9822\(18\)30207-0](http://www.cell.com/current-biology/fulltext/S0960-9822(18)30207-0) ; *ABJ* version: <https://mailchi.mp/americanbeejournal/march-15-2018-how-royal-jelly-helps-honeybee-larvae-defy-gravity-and-become-queens?e=e9ff21e0bb>

“Why Do Bees Sting? It Has To Do With Both Alarm Pheromone And Serotonin And Dopamine”: Bee Culture’s Catch the Buzz, March 19 2018, by R. Prasad:



Above, "[Bee-sting-abeille-dard-2](#)" by SuperManu (license: [CC BY-SA 3.0](#)).

“Researchers have unravelled the neuro-molecular mechanism of defence by honey bees when exposed to the sting alarm pheromone that they release in the face of a threat. [Researchers have found] that smelling isoamyl acetate, the main component in the alarm pheromone, increases the level of serotonin and dopamine in their brains, which, in turn, increases the stinging behaviour in bees and thus repels a threat. By itself, the alarm pheromone does not behave as a stimulus, but increases the likelihood of bees guarding the hive to repel a threat by stinging.” To read the details, visit: http://www.bee-culture.com/catch-buzz-bees-sting-alarm-pheromone-serotonin-dopamine/?utm_source=Catch+The+Buzz&utm_campaign=8528c6227f-Catch+The+Buzz+4+29+2015&utm_medium=email&utm_term=0_0272f190ab-8528c6227f-256261065

"Bites, Kicks, And Stings From Farm Animals, Bees, Wasps, Hornets, And Dogs Continue To Represent The Most Danger To Humans, According To A New Study In Wilderness & Environmental Medicine": Bee Culture's Catch the Buzz from March 26.



Above, "Fatal Sting," by Kathy Keatley Garvey, University of California (FYI – the fatality here was the bee's, not the person being stung)

A link to the article follows - if you are concerned about your level of honey bee venom allergy, you can get a blood test - for more information, visit:

http://lewiscountybeekeepers.org/bee_stings

"A new study released in the latest issue of Wilderness & Environmental Medicine shows that animal encounters remain a considerable cause of human harm and death. Researchers analyzed fatalities in the United States from venomous and nonvenomous animals from 2008-2015. They found that while many deaths from animal encounters are potentially avoidable, mortality rates did not decrease from 2008-2015. The animals most commonly responsible for human fatalities are farm animals, insects (hornets, wasps, and bees), and dogs. To read more, visit:

http://www.bee-culture.com/catch-buzz-bites-kicks-stings-farm-animals-bees-wasps-hornets-dogs-continue-represent-danger-humans-according-new-study-wilderness-environmental-medi/?utm_source=Catch+The+Buzz&utm_campaign=06e7b59ae4-Catch+The+Buzz+4+29+2015&utm_medium=email&utm_term=0_0272f190ab-06e7b59ae4-256261065

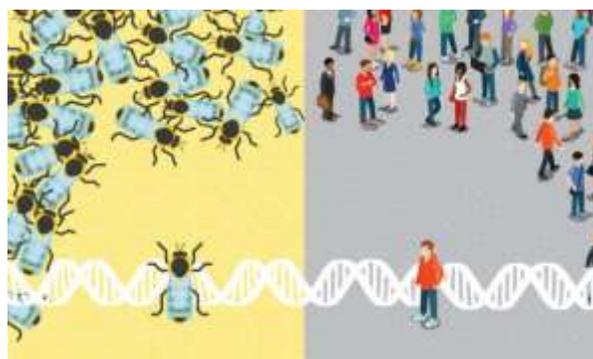
“Just So You Know, The Flow Hive Has Been Redesigned”: Bee Culture’s Catch the Buzz, March 23, 2018:



“The Flow Hive is a groundbreaking beehive that offers honey on tap. Over 50,000 Flow Hives have gone out to 130 countries around the world, and now the Australian father-son team behind the design are back. The pair redesigned their groundbreaking hive, drawing on customer feedback and adding brand new features, and they took to Indiegogo again with the Flow Hive 2 for a campaign that was 18,983% funded.” For more details, visit:

http://www.beeculture.com/catch-buzz-just-know-flow-hive-redesigned/?utm_source=Catch+The+Buzz&utm_campaign=587b45714d-Catch+The+Buzz+4+29+2015&utm_medium=email&utm_term=0_0272f190ab-587b45714d-256261065

"Study Finds Parallels Between Unresponsive Honey Bees And Human Autism": Bee Culture, March 12 2018:



Credit for image above: Julie McMahon – University of Illinois at Urbana-Champaign

"Honey bees that consistently fail to respond to obvious social cues share something fundamental with autistic humans, researchers report in a new study. Genes most closely associated with autism spectrum disorders in humans are regulated differently in unresponsive honey bees than in their more responsive nest mates, the study found." To read the details, visit:

http://www.beeculture.com/catch-buzz-study-finds-parallels-unresponsive-honey-bees-human-autism/?utm_source=Catch+The+Buzz&utm_campaign=1959f520c4-Catch+The+Buzz+4+29+2015&utm_medium=email&utm_term=0_0272f190ab-1959f520c4-256261065

A positive story about people starting a bee sanctuary in Detroit - thanks to Gillian Davis for sharing: "Bee Sanctuaries in Detroit: Conserving Honeybees on the City's Vacant Lots" March 13, 2018 By Anne Elizabeth Moore and Melissa Mendes:

To read the story (in graphic novel form – the first panel is pictured below), visit:
<http://www.truth-out.org/opinion/item/43814-bee-sanctuaries-in-detroit-conserving-honeybees-on-the-city-s-vacant-lots>



ANNOUNCEMENTS

Western Apicultural Society Newsletters: http://groups.ucanr.org/WAS/WAS_Journal. Click on the line in the paragraph on the right as directed. If you're still getting the old issue, click on "empty cache" in your browser or "refresh" or "reload" under VIEW in your menu bar.

WASBA Newsletter: Pick up your copy of this bimonthly online at www.wasba.org: click on "Newsletters." The July Newsletter's cover story is LCBA's Youth Scholarship Program!

That's all for now ~ take care, & bee happy!

~~ Susanne Weil, LCBA Secretary (Secretary@lcba.community; 360 880 8130)