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## September 2018 LCBA Newsletter

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*Secretary Susanne Weil: [secretary@lcba.community](mailto:secretary@lcba.community) or call 360 880 8130.*

## UPCOMING EVENTS



### Thursday, September 13: LCBA Monthly Meeting

#### Dan Maughan: Fall Management for Winter Bee Survival

**When:** Social Time 6–6:30 p.m.; Talk, Q&A, 6:30-7:30; Break & Business Meeting, 7:30-8:45

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

**What:** Dan Maughan will review the things we need to do for our bees at this time of year to help them survive the winter. We'll cover what to look for during fall inspections, hive manipulations, moisture control methods, Varroa monitoring and management, & more. Please bring your stories and questions! **Also:** Honey Contest Winners will be announced; Nominating Committee and 2019 Election information.

### Saturday, September 15: Fall Management Workshop



*Scenes from last year's fall management workshop: left, mentor Cody Warren demonstrates his oxalic acid fogger for Varroa mite control; right, LCBA members make moisture control boxes for apiary.*

**When:** 11 a.m. to 1 p.m.; **Where:** Please RSVP to [secretary@lcba.community](mailto:secretary@lcba.community) for address & directions. It helps us plan to know how many are coming. **What:** Are your bees well prepared for winter - how would you tell? LCBA Mentors will go through hives to assess their condition

& demonstrate Varroa treatments (oxalic acid vaporizing, Api Life Var, & more), as well as winter moisture control methods, including how to build a moisture control box. After the workshop, those interested are welcome to help build moisture boxes for our club apiary colonies. Please bring your protective gear!

## Saturday, Sept 22: LCBA at Seedpod Farm's Fall Harvest Festival



**When:** 10 a.m. to 4 pm; **Where:** Seedpod Farm, 2330 Howard Ave, Centralia WA 98531 – off old 99.

**What:** LCBA will have display tables with our Observation Hive, hive & tool displays, informational materials, and a tent for our People's Choice Honey Tasting. Seedpod Farm will feature many local crafts vendors, produce for sale, pressing cider, & fun events for kids. LCBA members are welcome to sell their honey and other bee products at this event. If you'd like to volunteer, please contact Susanne ([secretary@lcba.community](mailto:secretary@lcba.community)).



## Saturday, October 6: Candy Board Workshop

**When:** 10 a.m. to noon

**Where:** Email [secretary@lcba.community](mailto:secretary@lcba.community) for directions

**What:** Ever wanted to make hard sugar candy boards or no-bake boards, but not sure how? Mentorship Coordinator Cody Warren will demonstrate both methods. We may even get a little crazy and make pollen patties.

**Thursday, October 11 – LCBA Monthly Meeting**  
**Dr. Dewey Caron: Southwest WA Bee Losses & Management Practices**



**When:** Social Time 6–6:30 p.m.; Talk, Q&A, 6:30-7:30; Break & Business Meeting, 7:30-8:45

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

**What:** Color us excited, because LCBA was THE top responder to this year’s Pacific Northwest Bee Loss Survey! This means that Dewey’s data and insights will be even more relevant to us than usual, highlighting management practices that work. Bring your questions. Thank you to all our beekeepers who responded to the PNW & BIP Surveys! Short business meeting will follow.

**Thursday, November 9: LCBA Monthly Meeting**

**WSU’s APIS Program – more details soon. LCBA’s elections for 2019-10 Board positions (& possible bylaws revisions) will take place at this meeting.**



*Above, Dr. Brandon Hopkins artificially inseminates queen bees in WSU’s breeding program.*

**Saturday, December 8: LCBA’s Holiday Potluck, Borst Kitchen #1:**  
*2 pm, Mead-Making Demonstration by Cody Warren; 3 pm, Social Time; 4 pm, Dinner; 5 pm, Youth Scholarship Drawing. More details closer to the time!*

## Notes from August 9th - LCBA Monthly Meeting

**Speaker: LCBA Treasurer & Journeyman Beekeeper Rick Battin**  
**What's New at WSU: Queen Rearing, Mushrooms, & More**



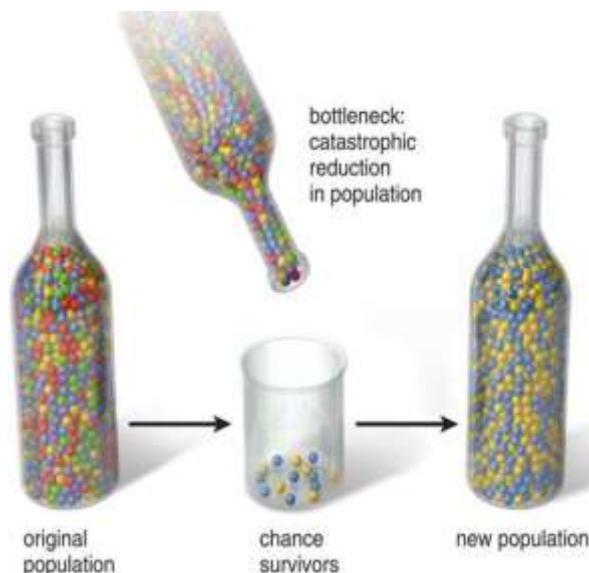
*Above left, Rick Battin & few thousand friends; right, a hapless drone has his semen harvested for WSU's breeding program.*

**Special Announcements:** Acting President Bob Harris called the meeting to order and asked Secretary Susanne Weil to report to the membership about LCBA's plans to hold a 2018 Honey Judging Contest, as we are not going to be at the Southwest Washington Fair (see our August Newsletter for information about that decision, made during our Summer Potluck meeting). Susanne asked for a show of hands of those planning to enter their honey in the contest, and about a dozen raised their hands, in addition to those who had signed up at the Potluck. Please see the specific details on our Honey Contests, below (pages 11-12 of this Newsletter).

**Rick Battin: WSU's Bee Program – Bee Breeding and Teaching Beekeepers:** Rick noted that he has gone to WSU's course many times, but never had the same experience twice. He explained how WSU's class program has evolved toward more advanced learning and away from offering beginning workshops since so many beginner options are available for beekeepers. Rick outlined the topics he would cover: bee genetics; the WSU breeding program; current research, including controlled atmosphere storage and work with mushroom extracts; Bee Days experiences and bee beards; research facility funding needed; and then Q&A.

**Bee genetics:** European subspecies are specialized to their environments – mainly Europe, Eurasia/Middle East, and North Africa. WSU works mainly with Carniolan bees from northern Italy, Slovenia, and nearby areas because these bees are adapted to cold rainy conditions (WSU's breeding program produces a hybrid strain called New World Carniolans – more on that below). WSU is also working with bees from Kazakhstan for an interesting reason: Washington State apple growers sponsored this initiative because fossil records show that Kazakhstan is where the most ancient apple-pollinating bees are. This fits WSU's mission to make a Washington-state-adapted bee, so we are not continually forced to rely on California queen producers.

***The Honey Bee Importation Act of 1922 and Subsequent Genetic Bottleneck:*** Rick pointed out that the Honey Bee Importation Act in the U.S. Code, Section 281, passed in 1922, prohibited import of bees; the law even excluded honey bee semen. The Act was an attempt to prevent tracheal mites from entering U.S. apiaries (this actually worked until about 1980). However, a less fortunate result was development of a “genetic bottleneck” or “founder effect”: in essence, U.S. honey bee genetics lack diversity and the hybrid vigor that results.



***Queen Bee Biology:*** Rick showed WSU Bees’ brief “raising a queen” video that explains the biology of a queen bee and how she is raised (to watch this video online, visit: <https://www.youtube.com/watch?v=A1N4YsFkc1w> ). In the video, WSU researcher Dr. Brandon Hopkins explains why we need stronger queens to help address colony losses that U.S. beekeepers are experiencing. He hopes for large scale queen genetics changes. In the video, he demonstrates how they “can turn a hive into a queen making factory.” They shake bees to supercharge a nuc with about six pounds of nurse bees. The breeders can control what genetic traits will be inherited: they select for Varroa-hygienic behavior, disposition, and other desirable traits. They also have an isolated breeding yard and can control what drones are allowed to fly there so that they can control the genetics more closely.

***Harvesting Bee Semen:*** Rick showed a rather amazing photo of a drone with its endophallus extended for harvesting of semen (see above). The drones are actually “milked” for their semen, as in the photo (above under November’s LCBA meeting in Upcoming Events), of Brandon in a Slovenian woodshed with drones that he caught.

The drones’ semen is stored in straws which are then frozen in liquid nitrogen. 20 to 30 drones’ product can go into one straw. The researchers then transport the product in temperature-regulated cold storage units; once they arrive at WSU, they are kept in special storage between -106 F to -110 F – yes, that’s BELOW zero. The drone’s contribution is critical to WSU’s breeding program: if you use an egg laid by a queen to derive genetic material, only one-half of the genes in that egg will be her genetics because that queen came from a fertilized egg. However, drone semen is 100% the genetics of the queen who laid that drone, since drones come from unfertilized eggs. It’s odd to consider, but drones do not have fathers.



*Above left, a sedated queen being inseminated; right, selecting eggs for the mating nuc.*

***Inseminating Queens:*** When queens are artificially inseminated, they are given a gas to relax them. After insemination, fertilized eggs are grafted and put into the top box of a mating nuc: the bottom box contains a queen-right colony. A queen excluder plus a thin metal slide blocks the queen below from interfering with the developing queens above; the queen below also cannot lay any eggs above, so the breeders know that the queens coming out of the top box are the ones with the genetics they want.



*Above, a frame of new queen cells from the mating nuc being tended by nurse bees; right, Tim Lawrence shows how to use a “shaker box” to return nurse bees to the mating nuc after new queens are taken.*

***Spermatheca evaluation:*** Failing queens are taken into the lab and killed; their spermatheca are evaluated to see what may have gone wrong. Rick noted that even during artificial insemination, a queen can reject / eject some of the sperm if she does not like it, as queens reject drones in midair. We are not sure how queens manage to do this! See the photo below, which shows a full spermathecal juxtaposed with a virgin queen’s spermathecal, on a person’s finger for scale:



A queen in the process of failing has a spermatheca about midway in development between the two pictured above.

While showing photos of the layout at WSU, Rick noted that the “problem grizzly bears” are housed in a big caged enclosure next to the apiary; the bears are smelling honey and brood all the time. What could go wrong?

***Indoor Over-wintering for Varroa Management:*** Many beekeepers have heard of the innovative indoor wintering project led by Eric Olsen and Steve Sheppard. The indoor, climate-controlled facility is maintained at an optimal temperature of around 40 degrees, which keeps the bees in their cluster: there is no brood, so no eggs for mites to lay in, and the result is that the bees are “fatter,” meaning more fat body, more lipid content, and overall, stronger condition going into spring. Carbon dioxide builds up fast in these warehouses which were meant for pears and apples, but the CO2 seems to be how bees put themselves into a low metabolic rate so that they do not burn through supplies or body fat as fast. Eric Olsen, in a video embedded in Rick’s PowerPoint, notes that before Steve Sheppard came to WSU, there was no focus on the applied science that bees and agriculture needed concerning why are bees dying, how to control mites, etc. When Steve came, Eric donated 100 hives to WSU right away to help support the research.



*Above, Eric Olsen displays over-wintering bees in WSU’s climate-controlled warehouse.*

Eric used to overwinter bees in California and had losses regularly, but losses got worse and worse, until one year he lost 60%. He started thinking: why not try a climate controlled warehouse in Yakima? He relocated his bees to a pear warehouse where he could control the temperature, and immediately achieved better colony survival with losses under 5% for three years in a row. Dan Maughan noted that he had heard of a beekeeper who put bees in a closed potato shed, then raised the temperature by four degrees to get them laying: it was very controlled and it worked.

***Mushroom research:*** Fungi Perfecti, based in Olympia, has partnered with WSU to research how mushrooms may help bees. The mushroom research is ongoing: different types of mushrooms have been tested, and they have found that bears help move fungi around and contribute to the spread of tree mushrooms. But how does all of this relate to bees? The WSU team has fed extracted fluid from mushrooms to the bees, infused into bee water, and it seems that there is less virus damage in the bees. One question is finding the right strain of mushrooms. The spores are grown on agar plates. They grow the mushrooms on birch wood, so they had to test that it was the mushrooms and not the birch wood making the difference.





*Above left, Paul Stamets of Fungi Perfecti; right, assorted mushroom extracts in the lab.*

Rick showed a video that covered the mushroom project: in it, you can see bees clustering on the feeding tubes, so they seem to like those mushroom extract mixtures! To view the video, visit: [https://www.youtube.com/watch?v=Y\\_lqIUION1s](https://www.youtube.com/watch?v=Y_lqIUION1s).

The idea for the research came from Stametz, who knew of a mushroom that helped kill termites and wondered if this might work with Varroa mites. Bees have immune systems, like people do, and possibly chemicals in mushrooms can help bolster bee immunity. They are partnering with commercial beekeepers, and Eric Olsen was the first to get involved. Rick was asked when these extracts would be available: Rick answered that while some are available, he does not have a name to buy them by. WSU hopes to have a commercial treatment for beekeepers soon. Bryan Castro wondered if the mushrooms might help with chalkbrood since there have been attempts to use fungal treatments for that.

**Bee Beards:** Rick shared videos that showed the bee bearding process. It begins with a wax medallion infused with lemongrass; the queen cage is then put inside it. They have used different approaches: in past years, they hooked queen ages to the collar of those who wanted to try the beard experience. They use the nurse bee box noted above so that the bees in the beards are relatively non-aggressive. They put a Deet product like OFF on the person's face to keep the bees off eyes, noses, ears. When the person feels complete with the bee beard experience, the next volunteer stands next to the first, who jumps and the facilitators take off the queen cages (or wax medallion) – this dislodges the bees, and then as the queen cages are moved to the next person, the bees follow. Rick has done this a few times: Dan asked what the best kind of shirt to wear is. Rick said a snug one would be good: he noted that he could feel the bees' little tarsals digging into him: it feels like your hair is involuntarily standing up! See the photo of Rick with bees on his lower face: he did NOT get stung! Dan asked if Rick had any bee stragglers: Rick said not many because the facilitators brush you well, and you move off toward the trees and bees are used to being where they congregate. To see a video of Tim Lawrence explaining the process, visit: <https://www.facebook.com/whatdidijust/videos/1066409506841754/>.



*Above left, the wax medallion infused with pheromones attracts the bees; right, a Bee Bearder jumps to dislodge the bees.*

***Insect Behavior and Testing Lab:*** WSU's fund drive to build the new facility kicked off at the Bee Days a couple of years ago. WSU is seeking \$15 million and, so far, has raised \$3.5 million. Paul Stametz, owner of Fungi Perfecti, gave \$50,000 and donated all spore material used for the project. Costco is helping with a pollinator initiative. In conclusion, Rick noted that the Bee Day course itself costs \$175 and includes lunch. Most of the money goes to the bee lab to support their research. He recommends the experience! We all thanked Rick for his entertaining and informative talk.

### ***August Business Meeting Notes***

***Treasurer's Report:*** Rick put on his Treasurer's hat and reported that that LCBA's checking balance is \$5,744.16; savings balance, \$5001.27; Youth Scholarship fund, \$2216.35.

***Community Outreach:*** In lieu of participating in the Southwest Washington Fair, LCBA will have an exhibit at the Seedpod Farm Fall Harvest Festival and Crafts Fair on Saturday, September 22, with our Observation Hive and other display items; we'll also hold the People's Choice Tasting Contest at Seedpod's event. Several members have already volunteered to help out. We also will host the Chehalis Farmers' Market Kids' Table on Tuesday, August 28.

***Education / Youth Scholarship Update:*** Mentor Mel Gregorich reported on Caleb Smith's bees – they are doing well, better than his dad's. Caleb took one frame of honey to spin – he was determined to get some! Dan Maughan reported that Austin Nelson's hive successfully re-queened. He too is getting a couple frames of honey, just to see. Susanne Weil reported that Carmen Cleveland-Barrera's bees have filled three medium boxes but seem to have stalled at box #4; however, she too can take at least a frame of honey to spin.

***Mentor Program Update:*** The July supers removal/varroa control workshop was well attended and fun. Susanne noted honey spinning options for members – as the August newsletter detailed, we now have a loaner extractor program for experienced beekeepers, and newbees are welcome to contact Susanne or Bob Harris to arrange using the club extractors at the apiary to spin honey.

We will have a fall management workshop on Saturday, September 15<sup>th</sup> – see Upcoming Events, earlier in this newsletter, for details.

**Apiary Update:** Cody Warren and Gottfried Fritz told an amazing story of how they saved the “bee log” – and bees - from Safe Family Ministries in Chehalis. When a large tree had to be cut down, the property owners discovered that a swarm had moved into the log, but not enough room for the bees to fit properly. Cody and Gottfried rigged a way to put the log on a hive stand, and Cody hollowed it out some and turned it on its side so the bees won’t get rained on. He is going to adapt a 5 frame nuc and will get them into the box. He hopes to transfer them after winter into a ten frame box. Gottfried quipped that these bees chose a “small studio apartment”! Cody also told the story of the “Centralia killer colony”: visit LCBA’s YouTube Channel, and you can see/hear the details! In short, this was a VERY hot hive - people could not get within 25 feet of the hive without bees going on the attack. Bob and Cody sallied forth to get these bees – Cody said that they clustered on his veil so thickly that he couldn’t even see! Lots of stings were incurred. They killed the queen, split this colony five ways, and Cody re-queened all of them with Russian queens: now, all but one are well behaved. Cody traded mead for the queens - nice! As for the ‘queen of fire’: well, she, or rather her corpse, was sent to WSU in a urine sample container for analysis; Bob noted, “Appropriate for a pissy queen.” WSU got back to Cody, saying that they are in their busy season now, but will get back with him in October.

## LCBA’s 2018 HONEY CONTESTS

*This year, LCBA will not be at the Southwest Washington Fair. However, we are holding a 2018 Honey Judging contest, as well as our People’s Choice Tasting contest, and you are warmly invited to submit your honey to either or both. Details follow:*

### **Contest #1: 2018 Honey Judging – the “Formal” Contest**

Judging will take place on the evening of Wednesday, September 12; winners will be announced at LCBA’s September 13 monthly meeting. Judging will be done by Education Coordinator Peter Glover and Community Outreach Coordinator Dan Maughan.

**When & where to submit your honey:** Please bring your honey between Monday, September 10 and Wednesday, September 13 (deadline 4pm on the 13th) to LCBA Secretary Susanne Weil’s office at Centralia College, Trans-Alta Commons 316. The TAC building is next door to Washington Hall, where LCBA meets (see address above). Take the elevator to the third floor and follow signs for faculty offices; there will be a box outside Susanne’s door for you to leave your honey. (If you run into problems finding it, please call Susanne, 360 880 8130).

**What to submit:** So that the shape/size of the jars is uniform (& thus not a factor in judging), please submit your honey in a one pint Queenline Jar – if you are an LCBA member and need one of these jars, please contact Susanne at [secretary@lcba.community](mailto:secretary@lcba.community) to pick one up.

Please put your jar in a bag with your name on it – please, no identifying markings on the jar itself.

If submitting the honey at the college is a problem, please contact Susanne to see if we can work out an alternative.

**Tips on Honey Presentation:** For judging criteria and tips on making your honey look its best, please see our website for a slideshow of tips and our honey judging score card:  
[http://lewiscountybeekeepers.org/education/preparing\\_your\\_honey\\_for\\_fair\\_judging](http://lewiscountybeekeepers.org/education/preparing_your_honey_for_fair_judging)

**Still need to spin your honey?** LCBA has a loaner extractor & extracting kit for members. For details, please see our August Newsletter:  
[http://lewiscountybeekeepers.org/yahoo\\_site\\_admin/assets/docs/LCBA\\_August\\_2018\\_Newsletter.213131905.pdf](http://lewiscountybeekeepers.org/yahoo_site_admin/assets/docs/LCBA_August_2018_Newsletter.213131905.pdf) If you have never extracted honey and would like some guidance, please contact Susanne and we'll arrange to spin your honey with the help of a mentor using a club extractor at our apiary. **FYI:** Honey takes days after bottling for air bubbles to dissipate, so it's best to bottle at least a week before submitting honey.

### **Contest #2: People's Choice Honey Tasting – where the public votes for their favorite**

**Where:** This year's People's Choice contest will take place at Seedpod Farm's Fall Harvest Festival & Crafts Fair on Saturday, September 22. Seedpod Farm is at 2330 Howard Ave, Centralia WA 98531 – off old 99.

**When:** To submit your honey, bring a half pint jar (type does not matter) to the venue between 9:30 and 10 a.m. on Sept 22. Attendees at the festival will vote for the winner. This is a great opportunity for Lewis County residents to experience the widely varying tastes of raw local honey. Also, LCBA members are welcome to sell their honey at the club table. We'll have the Observation Hive, displays & giveaways, & many local farmers and crafts vendors will have their wares available. There will also be plenty of events for kids. It should be a fun day for all!



*Above left, LCBA President Kevin Reichert won his 4<sup>th</sup> People's Choice Honey contest last summer – who will win this year? Come submit your honey to help visitors to Seedpod Farm learn how diverse and delicious our raw local honeys are! Right, 2016 Youth Scholar Sam and 2017 Youth Scholar Rylie in the “bee face board” that Cody Warren made for our club. We'll have the Bee Face board at Seedpod Farm, too.*

**It's On: 2<sup>nd</sup> Annual Mite-a-Thon**  
**Help Entomologists Map Varroa Infestation, September 8 - 16**



The 2nd annual Mite-a-Thon is a Citizen Science Project of NAPPC (North American Pollinator Protection Campaign) <http://www.pollinator.org/miteathon>, with support of HBHC (Honey Bee Health Coalition) <http://www.honeybehealthcoalition.org> and the BIP (Bee Informed Project) <http://www.beeinformed.org>. The Mite-a-Thon is a coordinated effort to provide a “snapshot” of mite numbers during September across the U.S.

Mite-a-Thon goals are 1) to raise awareness about honey bee colony varroa mite infestation levels and 2) Teach testing protocols and provide resources for positive, proactive varroa mite management strategies.

**Participants are asked to sample their hive(s) for varroa mites between  
 SATURDAY SEPTEMBER 8 TO SUNDAY SEPTEMBER 16, 2018**

**Then enter sampling results on Mitecheck: [www.mitecheck.com](http://www.mitecheck.com)**

Mitecheck - [www.mitecheck.com](http://www.mitecheck.com) - is an online platform that allows beekeepers to enter their sampling counts of Varroa destructor mites after monitoring using either powdered sugar roll or alcohol wash. (See Tools for Varroa Mite Management Guide for sampling information and video (free download <http://www.honeybeehealthcoalition.org/varroa/>). Participating in this online platform will provide critical information about overall health of bees. The greater the participation will enable us to see seasonal and geographic trends in mite populations across the country. This information might help develop more effective mite management strategies and better understand the risk of mites coming into colonies from other colonies in your area.

Need more information? Contact <http://www.miteathon@pollinator.org> or Dr. Dewey Caron, [dmcaron@udel.edu](mailto:dmcaron@udel.edu)

## RECIPES OF THE MONTH from the National Honey Board

### Honey Leches French Toast

*Recipe courtesy of Chef Rob Corliss, made for the National Honey Board*

#### **Ingredients:**

*For Honey Leches Mixture:*

- 2 Tbs blueberry honey
- 1/4 cup evaporated milk
- 1/4 cup lite Thai coconut milk
- 3 large eggs
- 1 tsp. pure vanilla extract
- 1/2 tsp. ground cinnamon

*For Berry Garnish:*

- 1/2 cup fresh raspberries
- 1/2 cup fresh blueberries
- 1/2 cup fresh strawberries, sliced

*For Hot Honey:*

- 1/2 cup blueberry honey
- 1/2 tsp. cayenne pepper

*For Pound Cake:*

- 8 small slices of pre-made pound cake
- vegetable spray



#### **Directions:**

*For Honey Leches Mixture:* Place 2 T blueberry honey, evaporated milk, coconut milk, eggs, vanilla extract and cinnamon in a mixing bowl and whisk to evenly combine. Keep chilled.

*For Berry Garnish:* Place the raspberries, blueberries and strawberries in a mixing bowl and lightly toss to evenly combine. Keep chilled.

*For Hot Honey:* Place 1/2 cup blueberry honey in a small mixing bowl. Add cayenne and whisk to evenly combine. Keep warm, so the hot honey is very pourable.

Pre-heat an electric griddle to 375°F. Prepare the pound cake. Arrange pound cake slices, side by side, flat, in a casserole dish or a pan with sides. Pour the honey leches mixture over and around the pound cake slices and soak for 1 minute. Lightly coat the pre-heated electric griddle with vegetable spray. Remove pound cake slices from the honey leches mixture, allowing any liquid

to drain off (discard any remaining liquid), then place each slice on the hot griddle. Griddle the pound cake slices approximately 2 minutes on each side, to golden crispy and hot throughout. To serve, place 2 griddled overlapping pound cake slices on a plate (4 plates total). Top each with approximately 1/4 cup of the mixed berries and then drizzle each with approximately 2 T of the warm hot honey. Serve and enjoy!

**TIPS:** You can also use a large non-stick sauté pan, over medium-high heat, on your stovetop to griddle the French toast vs. an electric griddle. If your homemade pound cake recipe calls for one cup of sugar, you can replace it with only a 1/2 cup of honey. Reduce any liquid by 1/4 cup, add 1/2 tsp. baking soda, and reduce oven temp by 25°F.

## Honey Poached Apples

*Recipe courtesy of Chef Jessica Koslow, made for the National Honey Board*

### **Ingredients (for 4 servings):**

#### *For Poached Apples:*

2 firm apples  
1 lemon, juiced  
2 cups water  
1/3 cup honey  
1/2 vanilla bean, split lengthwise  
salt

#### *For Sauce:*

1 cup Greek yogurt  
2 tsp. toasted sesame seeds  
granola, optional



### **Directions:**

Cut a sheet of round parchment paper to fit the inside of the poaching pot. Peel the apples, then cut them in half from the stem down - keep the stem on if possible. Core and squeeze a little bit of lemon juice over them, set the rest of the lemon juice aside. Place on a plate and set aside. In the 4-quart pot, add the water, honey and juice of the rest of the lemon. Boil on medium heat and stir until the honey is dissolved. Reduce heat to low, add the apples and cover with the round parchment. Simmer for 20 minutes, flipping the apples after 10 minutes. They should be tender when pierced. Use a slotted spoon and set apples aside. Boil the liquid on high for another 2 minutes and then set the sauce aside to cool. After 30 minutes, the sauce and apples should be room temperature. Once the sauce is cool, in a small bowl, mix 3 tsp. of sauce in with the yogurt. Place the apples on plates and top with a dollop of the honey yogurt. Finish each plate with 1/2 tsp. toasted sesame, 1/2 tsp. of sauce drizzled over the top & a handful of granola, if you have it.

## BEES IN THE NEWS

*Thanks to Steve Norton, Phil Wilson, and the good folks at Bee Informed Partnership, Bee Culture, and American Bee Journal for stories.*



**“FDA approves Teva's generic EpiPen in blow to Mylan”:** *Business Insider*, August 16, 2018:

“The U.S. Food and Drug Administration on Thursday approved Teva Pharmaceutical Industries Ltd's generic version of Mylan NV's EpiPen for the emergency treatment of allergic reactions. Today's approval of the first generic version of the most-widely prescribed epinephrine auto-injector in the U.S. is part of our longstanding commitment to advance access to lower cost, safe and effective generic alternatives once patents and other exclusivities no longer prevent approval,” FDA Commissioner Scott Gottlieb said.

“The news comes a week after Mylan announced that it will conduct a strategic review of the company due a tough environment for generic drugmakers. Mylan has also faced a lot of controversy over the past several years. This includes an EpiPen shortage problem, a dramatic EpiPen price hike over the last decade, several class-action lawsuits, and an accusation that it was overcharging the US government by \$1.27 billion for EpiPens.” For the full story, including links to sources with details about shortages and lawsuits, visit:

<https://www.businessinsider.com/r-fda-approves-first-generic-version-of-mylans-epipen-2018-8>

**“Researchers Suggest Manuka Honey May End Up Being Able To Kill More Bacteria Than Antibiotics”:** *AwarenessAct*, 2018. New research documents healing properties: to read the full story, visit: <https://awarenessact.com/researchers-suggest-manuka-honey-may-end-up-being-able-to-kill-more-bacteria-than-antibiotics/>



**Hopes for a Possible Neonicotinoid Substitute Dashed: “Sulfoximine-Based Insecticides May Harm Bees as Much as Those They are to Replace”: Bee Culture’s Catch the Buzz, August 23, 2018:**



“A new class of pesticides positioned to replace neonicotinoids may be just as harmful to crop-pollinating bees, researchers cautioned Wednesday. In experiments, the ability of bumblebees to reproduce, and the rate at which their colonies grow, were both compromised by the new sulfoximine-based insecticides, they reported in the journal Nature.

“Colonies exposed to low doses of the pesticide in the lab yielded significantly less workers and half as many reproductive males after the bees were transferred to a field setting. “Our results show that sulfoxaflor”—one of the new class of insecticide—”can have a negative impact on the reproductive output of bumblebee colonies,” said lead author Harry Siviter, a researcher at Royal Holloway University of London.

“As with neonicotinoids, sulfoxaflor does not directly kill bees, but appears to affect the immune system or the ability to reproduce.” For the complete article, visit:

<https://www.bee-culture.com/catch-the-buzz-sulfoximine-based-insecticides-may-harm-bees-as-much-as-those-they-are-to-replace/>

**“FDA Finds Glyphosate in Honey. What Now?”: Bee Culture’s Catch the Buzz, August 31, 2018:**



“The U.S. Food and Drug Administration (FDA) has found residues of the weed killer glyphosate in samples of U.S. honey, according to documents obtained by the consumer

advocacy group U.S. Right to Know through a Freedom of Information Act request. Some samples showed residue levels double the legally allowed limit in the European Union.

“There is no legal tolerance level for glyphosate in honey in the U.S., so any amount of detectable glyphosate in honey could technically be considered illegal. Some of the honey tested by the FDA had glyphosate residues at 107 parts per billion, well more than the 50 parts per billion set as a maximum allowed in the European Union, the documents state.

“Records obtained from the FDA, as well as the U.S. Environmental Protection Agency and the U.S. Department of Agriculture, by U.S. Right to Know detail a range of revelations about the federal government’s efforts to get a handle on rising concerns about glyphosate. In addition to honey, the records show government residue experts discussing the prevalence of glyphosate found in soybean samples and the belief that there could be a lot of “violation for glyphosate” residue levels in U.S. crops.

“Glyphosate, the key ingredient in Monsanto’s Roundup herbicide, is the most widely used herbicide in the world and concerns about glyphosate residues in food increased after the World Health Organization in 2015 said its cancer experts determined glyphosate is a probable human carcinogen. Other international scientists have raised concerns about how heavy use of glyphosate is impacting human health and the environment.” For the full story, visit:

<https://www.bee-culture.com/catch-the-buzz-fda-finds-glyphosate-in-honey-what-now/>



**“EU Ban on Neonics in Ag Didn’t Stop Their Use in Urban Areas”: Bee Culture’s Catch the Buzz, August 14, 2018:**

A disturbing but interesting view into the difficulty of achieving effective neonicotinoid pesticide bans: “Bees living in suburban habitats are still being exposed to significant levels of pesticides despite the European Union ban on the use of neonicotinoid pesticides on flowering crops. Research from University of Sussex scientists finds that while the EU restrictions on neonicotinoid chemicals five years ago reduced exposure of bees living in farmland, more than

half of all pollen and nectar samples collected from bee nests in Sussex, Hertfordshire and Scotland between 2013 and 2015 were contaminated.

“The study is the first of its kind to highlight the risk to bees in urban areas posed by garden use of pesticides. The researchers are urging gardeners to ditch their bug sprays immediately in favour of encouraging natural predators such as ladybirds or lacewings, and the use of physical methods such as hand-removal of pests, and netting or sticky traps.”

To read the full article, visit: <https://www.beeeculture.com/catch-the-buzz-eu-ban-on-neonics-in-ag-didnt-stop-their-use-in-urban-areas/>

**“Australia Has a Near Miss on Varroa Entering the Country. Surveillance of Varroa Ends After no Mites Were Found”: Bee Culture’s Catch the Buzz, August 24, 2018:**



“No further detections of varroa mites have been made six weeks after the bee parasite was discovered in a container onboard a ship that arrived in Melbourne. An intensive surveillance effort wrapped up Friday last week that saw every hive — six sentinel hives and 23 private hives — within a 2km radius of the Port of Melbourne tested four times. This was in addition to the monitoring of 21 swarm catch boxes, and sweep netting and ground surveillance.

Agriculture Victoria’s chief plant health officer Rosa Crnov described the joint government and industry effort as “very successful”. “We really are confident we didn’t find the mite,” Dr Crnov said. “We inspected every known hive in that site, we also examined sentinel hives during that period, we destroyed a couple of feral hives and during that process we found no varroa mite, so it’s a great outcome for us.”

Agriculture Victoria’s incident management team, which conducted the bee hive surveillance, was stood down on Friday. Surveillance began for the world’s worst honey bee pest after it was found in a container of industrial electrical equipment that originated in the US and docked at the Port of Melbourne on June 23. When the container was opened staff noticed bees flying around and quickly secured it. The European honey bees were then killed by insecticide treatment, and testing later confirmed they were carrying Varroa destructor. The pest is often cited as the most

serious threat to the viability of the Australian honey bee industry, and is prevalent in every continent of the world except Australia.

“As a precaution, new sentinel hives have been established around the port and will be regularly monitored over the next six months. Dr Crnov urged bee keepers to remain vigilant for unusual signs in their hives. “Regularly test hives using the sugar shake method and follow the Australian Honey Bee Industry Biosecurity Code of Practice,” she said. Australian Honey Bee Industry Council executive director Trevor Weatherhead said testing was precautionary and he did not expect the discovery of any varroa infected bees. He said “interestingly” DNA tests showed the bees to be *Apis mellifera mellifera*. For the full story, visit: <https://www.beeeculture.com/catch-the-buzz-australia-has-a-near-miss-on-varroa-entering-the-country-surveillance-of-varroa-ends-after-no-mites-were-found/#.W4CjbhW1uHU.facebook>

**“Diet Switches Honey Bee Larvae from Queen Pathway to Worker Development”:  
American Bee Journal, August 23, 2018:**



“Scientists at Queen Mary University of London and Australian National University have unraveled how changes in nutrition in the early development of honey bees can result in vastly different adult characteristics. Queen and worker honey bees are almost genetically identical, but receive a different diet as larvae. The researchers have found that specific protein patterns on their genome play an important role in determining which one they develop into.

“These proteins, known as histones, act as switches that control how the larvae develop. Diet determines which switches are activated. They found that the queen develops faster and the worker developmental pathway is actively switched on from a default queen developmental program. This change is caused by epigenetics - a dynamic set of instructions that exist 'on top' of the genetic information. Epigenetic modifications encode and direct the program of events that leads to differential gene expression and worker or queen developmental outcome.” For the full

story, visit: <https://mailchi.mp/americanbeejournal/august-23-2018-diet-switches-honey-bee-larvae-from-queen-pathway-to-worker-development>

## ANNOUNCEMENTS

### *Also see “Upcoming Events”*

**Western Apicultural Society Newsletters:** [http://groups.ucanr.org/WAS/WAS\\_Journal](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](http://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](mailto:Secretary@lcba.community); 360 880 8130)