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# September 2017 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, September 14: LCBA Monthly Meeting

**Kevin Reichert: Preparing Your Bees for Winter** 

Social Time 6 – 6:30 p.m.; Talk & Q&A, 6:30 to 7:30; Break & Business Meeting, 7:30 to 8:45 Centralia College, Washington Hall 103, 701 W. Walnut, Centralia WA 98531



Moisture control boxes, winter feed options, Varroa treatments & more will be covered at our September 14 monthly meeting and September 16 fall management workshop.

## Saturday, September 16: LCBA Fall Management Workshop

Tentative Time noon to 2 at the Club Apiary – please RSVP to <u>secretary@lcba.community</u> for directions. Mentors will demonstrate different Varroa treatments and moisture control methods, including how to build a moisture control box.

# Thursday, October 12: LCBA Monthly Meeting

Dr. Dewey Caron: Southwest WA Bee Losses & Management Practices

Dewey will share how Lewis County's bee loss data for the past year compares with the Pacific Northwest and the nation as a whole. He'll also share some suggestions on management practices that can help us keep our bees alive through the winter to come.



Thursday, November 9: LCBA Monthly Meeting

Dan Maughan: Commercial Pollination – Bringing Bees to Almonds, Apples, & Cherries

# Saturday, December 9: LCBA's Holiday Potluck, at Borst Kitchen #1 More details closer to the time!

### SMALL FARM WORKSHOP SERIES -L.C. EXTENSION



The WSU Lewis County Extension will host a workshop series relative to today's small farm agribusiness, farm owners, and operators. Great information for experienced farmers, or those thinking about getting started. These monthly workshops will be held at the Lewis County Courthouse, 351 NW North Street, Chehalis, on Thursday evenings 6pm – 7:30pm. \$5 per family at the door (Cash and Check only). Pre-registration is requested to assure handouts, Call 360-740-1212 Walk-ins Welcome too. Topics will include:

September 28: How Ag Weather Net Works

October 26: Mud Management with Gary Fredricks, Cowlitz County Extension

November 30: FSME (Farm Safety Modernization Act) and Your Farm

# Free Fall Workshops from Lewis County Extension

Sept 12 Olequa Senior Center-Winlock Know Your Soils
Sept 15 Borst Park Kitchen #2 Preserving Meat, Game, Seafood
Sept 16 Borst Park Demo Garden Seed Saving
Sept 28 Mossyrock Community Ctr Advanced Composting
Oct 4 Borst Park Kitchen #1 Reclaim/Recycle/Repair-Wear
Oct 7 Centralia College-WA Hall Gardening for Everyone Classes
Oct 13 Borst Park Kitchen #2 Fall Comfort Foods

For more information and details about these workshops, visit LC Extension's webpage at lewis.wsu.edu (or Facebook), or call the LC Extension office at 360 740 1212.

# LCBA's August 10<sup>th</sup> Meeting ~ Dr. Danny Najera the "Mite Buster"



President Kevin Reichert introduced Dr. Danny Najera, professor of biology at Green River College. Danny was our November 2016 speaker, focusing on the waggle dance; today, he came to discuss all beekeepers' favorite topic – Varroa mites. Danny wants to encourage us to check and address mites as a team: teams are effective when they cooperate, so if we beekeepers work on the mite problem together, we have a better chance to help our bees survive.

Green River College Honey Bee Overwintering Study: In 2015-16, Danny led an overwintering study at GRC, monitoring 100 colonies with the help of five women students who had never kept bees before; Danny said, "they trusted my smile" and were very fast learners. A lot of beekeepers would not have done what these young ladies did in the middle of the night – when they inserted monitoring gear - with these bees. Bob Rivers, a disc jockey who also teaches media at GRC, donated \$10K to help get the project going. The bees they studied were located throughout the Seattle area – Danny and his team put in a lot of driving time, visiting hives as far south as Tacoma, and some in the foothills.

When Danny came to the Pacific Northwest from San Antonio, he talked with the Puget Sound Beekeepers' Association and asked what the biggest challenges were for beekeepers here. In San Antonio, problems are too much sun, not enough rain, drought and dearth: winter is actually productive for beekeepers. Here, conditions are completely opposite. Puget Sound beekeepers named Varroa mites and overwintering as their biggest problems; other issues included the weather being too humid and/or too cold, too many bears, Varroa, Nosema, not enough honey, low colony size. However, no one had actually measured humidity inside colonies.

Danny decided to measure all of these factors. He didn't expect that his group could solve all these problems, but that they could at least measure them to see what factors actually are the most dangerous for bees.

2015 U.S. Pollinator Health Task Force: This federal initiative set a goal of reducing overwintering mortality to 15% within 10 years; however, in 2015-16, PSBA had 43% losses.

Only 28% to go! Danny said that the question is: are beekeepers willing to do what it takes? The numbers are not lying: across the nation, bees face lots of problems.



Above, Danny's research team from Green River College.

*Monitoring equipment:* Using Bob Rivers' donation, Danny and his team bought Melliseus mini-sensors that could be inserted in hives to measure temperature and humidity. These sensors, from TwoLittleLadiesApiary.com, took measurements every 10 minutes for 100 colonies for whole winter.

The devices are somewhat weatherproof, with one sensor outside each colony and one inside. They also invested in 5 more expensive British Arnia sensors that measured weight, temperature, humidity, and more, with 3 data points every hour stored in the Cloud. However, not all 100 hives made it through the winter. On one site, goats were introduced to keep the blackberries down: the goats ate the sensors, along with other things.



Above, goats grazing on blackberries with an assist from bee boxes.

How they installed everything: Danny showed a very entertaining fast-motion video from GRC Honey Bee Facebook page (if you are on Facebook, you can visit the page to view the video: <a href="https://www.facebook.com/GreenRiverHoneybees/">https://www.facebook.com/GreenRiverHoneybees/</a>). The entrance height of all 100 hives was 12 centimeters. The team put weight sensor under the hives and measured each hive, one by one: Danny showed one weighing 145 pounds (including woodenware). They drilled holes for wires in each inner cover, then drilled in screws drilled in to hold the sensor wires in place. They then took an alcohol sample of nurse bees from each hive to test for mites. All this was done at the end of October, and, Danny said, "these bees were pissed off." His team got very fast, able to sample a colony in 4-5 minutes at first, and then got faster. Danny credited his undergraduate helpers for their hard work and great attitudes.



Above, one of the sensors from TwoLittleLadiesApiary.com.

What they measured: Danny's team looked for internal humidity, internal temperature, honey estimate, nosema spore count, varroa mite count, pollen estimate, egg presence, larvae presence, box configuration, pop estimate, entrance height, hive tilt, bottom board type, and hive weight. Their research question: do any of these features have predictive value concerning whether your colonies are going to live or die?

**Sampling days & nights:** Night is a good time to sample, but bees come to any light source, so stinging happened. On sampling days, they spent long hours driving; they didn't even take off bee suits, as that was a waste of valuable time. Danny commented that if you go into supermarkets wearing bee suits, you get a lot of respect. Danny said that this really is the time to be a beekeeper: people are aware that bees are in trouble and don't want them to die. Even exterminators will turn away money and not kill bees: they will tell callers to talk to a beekeeper.

What they found - Geographic data: 65% of colonies they sampled near water, the Sound, died. In contrast, 20% of colonies in foothills and rural areas, even Kent, Issaqua, and Redmond, lived. But there is more to it than just the location: forage, humidity, temperature could all be factors, and some colonies did thrive. As a scientist, Danny teaches his students to follow the data. But here, there was no trail from the data. They needed to delve into other factors behind that correlation with location. So they looked at:

*Hive type:* Most of the colonies were housed in standard Langstroth double deeps: some were in mediums, most were on 10 frames, some were on 8 frames. Across the data, box configuration didn't factor into survival.



Where Danny's team sampled colonies.

**Bee population:** Counting bees is difficult and you don't want to disrupt colonies more than you have to, so they came up with a crude sampling method to estimate bee population by looking down into the hive. They called a full frame one where they saw space filled with bees between 2 frames; if no bees in the space, then a zero; and a halfway measure in-between. There was no obvious effect of population size for colonies that lived or died.

**Entrance height:** Bees will naturally choose a higher height in nature. We beekeepers tend to keep our hives down where it's convenient for us to inspect, so grass, moisture, and critters all become more factors for bees to deal with. Most of the entrance heights were around 30 centimeters, a good foot, foot and a half off the ground. But again, entrance height showed no predictive trend for overwintering survival.

*Hive weight:* Danny granted some biased sampling in that they chose for colonies in good shape going into winter. Average hive weight going into winter was around the 60 pounds recommended. However, again, there was no predictive trend for hive weight in the sample. They compared continuous hive weight over winter: with the weight scale, they could see the rate at which honey was being consumed. Also, some beekeepers fed candy: some spikes in the slopes of lines in Danny's data tables showed when bees got fed. Still, there was no clear predictive value, but now they could begin to ask questions: does it matter if you feed, and how often, or if you wrap the hive, etc. To test any of these methods, you'd need to try each method with multiple hives in the same location and have a control group.

*Humidity and temperature:* About half of the colonies that had upper entrances, reducing humidity, died, about half lived, so, again, no predictive value. Kevin asked what kind of ventilation: Danny said that it varied, and again, teasing out specific types didn't show any

predictive value: having an upper entrance reduced humidity significantly, but this didn't seem to make a difference between life and death for the colonies.

**Disease – Nosema:** Danny's team sampled dead bees for Nosema by analyzing the bees' abdomens, which they blend up in a sample per colony that is then looked at under a microscope for spores. Again, presence of Nosema had no predictive value.: spore counts of 20 and below are not serious, and most were in this bracket.

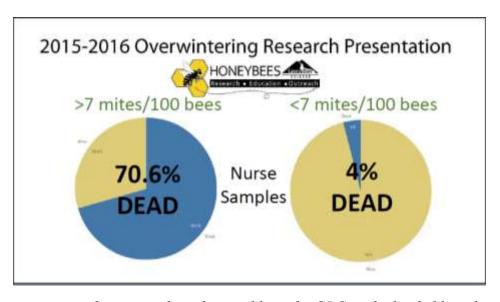


Gutting bee abdomens for Nosema analysis.

*Varroa Mite analysis:* To sample mites, they screened off dead bees and poured so that mites fell through screen. They collected both nurse and forager bees – nurse bees are more likely to have the mites. But how do you get foragers in November? The overwintering foragers revert to guards, so if you hit the colony box, the guards will emerge and can be sampled.

Forager v. nurse bee mite loads: Danny noted that the foragers' mite loads in October did not make not much difference in whether the colony was alive or dead the following spring. However, nurse bees' numbers made a big difference, with fewer being far better: under 7 mites per 100 bees. After winter, overall, 32.5% of the 100 colonies died - but for colonies with under 7 mites per 100 nurse bees, only 4% died.

But the results are more profound than that. Varroa mites were the one variable that Danny's team found to make a difference for colony survival. Of colonies that had fewer than 7 mites per 100 bees, only 4% died; of colonies with 7 or more mites per 100 bees, 70.6% of colonies were dead. "I couldn't even dream up a variable making this extreme a difference," Danny said. "Do you know your mite count? It is key to your bees' survival."



Varroa mites on nurse bees were the only variable in the GRC study that held predictive value.

*Treatment v. Treatment-Free:* In the GRC data, for colonies managed naturally without treatment, mite populations exploded in fall. Treatments do work, Danny noted – if colonies are treated mite population doesn't blow up. Luckily, many different methods are available to treat for mites. If you don't want to use chemicals, you can try genetics – getting bees bred for Varroa-sensitive hygiene. We can control mites via brood breaks: cage the queen in late summer when numbers dropping anyway, if we don't want to use chemicals.

**Problem:** re-infestation of treated bees: If you control mites, but your neighbor doesn't, then your colony will rob that colony out as it is collapsing – and your bees get re-infected. This, in fact, is the mites' primary means to survive and spread when they have about killed their hosts. Danny explained that there are three primary ways that mites get into your bees. First is drift: an infected forager returns to the box next door, bringing mites. Second is robbing: to bees, finding a dead-out hive is gold – it's so much easier to harvest honey than to forage a zillion flowers. Third is foraging: a healthy bee picks up a mite off a flower where that mite was dropped from an infected bee. Mites can only live about two days without a host. But if bees typically forage up to two miles, then the mites expand their radius to 4 miles. Danny showed a Google map of Centralia and asked us to imagine how many colonies there are within a given 4 mile radius. We can't stop bees from foraging; thus, we can't stop mites getting from getting into our colonies. This means that we must figure this into our treatment plan.

**Does anything eat mites?** – one member asked. Danny answered that yes, some other insects do, such as the pseudo-scorpion: however, there are never enough of these to eat down the mites, and if you raise their population, the pseudo-scorpions will start eating brood.

*Me v.s We:* Danny emphasized that each of us as individual beekeepers can take care of our hives, but they will get re-infected. It becomes a game of whack-a-mole. But if we think of Varroa regionally, and work cooperatively, our bees won't get re-infected via foraging. Some

beekeepers won't treat, but the more who do, the less the Varroa impact. Danny noted that if animal husbandry officials in government got wind of this, beekeepers might end up mandated to treat.

What about feral bees? Or miticide resistance? – Danny noted that feral hives can be "Varroa bombs." Some ferals developed resistance, though we do not have much data here in the U.S. What we do know is that miticides reduce bees' natural ability to combat the mites. So in a way, Danny commented, we are on a treadmill, running where the bees won't get the chance to develop resistance because no one wants to let 95% of bee colonies die in the hope that the last 5% will turn out to have developed resistance. Bob asked if this is a biological or economic argument: Danny agreed that it is driven by economics.

*Mite Busters:* Danny played the GRC "Mite Busters" video spoof on "Ghostbusters,": it is charming, hilarious, and can be viewed on the GRC Honey Bee Facebook page (see address, above).

*Mite Busting Schedule:* Danny's group is coordinating citizen science data sharing. They do their "first bust" at the start of August and their "2nd bust" in the first week of October.

Sharing our results: A beekeeping group can coordinate a schedule like this and keep their members' own data. Bee associations are in all 50 states, so we can work on this together. Our bees are one of most group efficient species in the world; we can learn from them. If you want to participate in the GRC research, Danny invites you to email <a href="mailto:dnajera@greenriver.edu">dnajera@greenriver.edu</a>. If the health of our bees is our main concern, we need to coordinate. If we build a system of reporting and communicate together as a group, we can get losses down. GRC website consolidates data – visit <a href="mailto:http://mitebusters.greenrivertech.net/">http://mitebusters.greenrivertech.net/</a> You can report your data: it will be updated as data comes in so that you get not just your data, but also the regional data in a response. One goal is to map where high and low mite numbers. Ron Black asked if there is any particular time Danny wants counts from us: Danny said just please post when you test, whenever you do it.

**Q&A:** Are some bees better at dealing with mites than others? Danny said yes -VSH bees do better, but tend to be less efficient foragers because they work so hard on mites.

What do commercial beekeepers do? Danny noted that oxalic acid dribble is favored because it is very fast. Commercial beekeepers often don't test – they assume mites and just treat. The drip is done via syringe. Kevin noted that the commercial guys treat later in fall, after honey is pulled. Brushy Mountain sells oxalic acid crystals, which you mix at a certain concentration. Danny noted that Randy Oliver's scientificbeekeeping.com webpage has much information about how to set this up for your apiary. Cody noted that Lincoln Creek Lumber sells oxalic acid crystals: only two factories in the U.S. make it and both are on the east coast, so you can buy a big bag from Brushy Mountain, or get a little at a time from Lincoln Creek Lumber.

*Climate issues?* Peggy Hammer asked if the calendar /climate shifts we are seeing may change the suggested treatment calendar. Danny said that he is not sure because bees keep the inside hive temperatures constant despite outside fluctuations.

*Africanized bees?* Pat Sturgill asked whether Africanized bees are coming here – they are reputed to be more mite-resistant. Danny answered that the Africanized cannot manage in the Pacific Northwest climate: even with the little warming we have had, we don't have year round prairies for them to forage on. The Africanized bees started going up into northern Oklahoma and built up, then collapsed for this reason.

Danny thanked his five assistants, commenting that it was appropriate to have a female team to research matriarchal society. For more about his team, visit:

<u>https://www.facebook.com/GreenRiverHoneybees/</u> Danny's slideshow is on our website under the Monthly Meetings link:

http://lewiscountybeekeepers.org/yahoo\_site\_admin/assets/docs/Dr\_Danny\_Najera\_Overwintering Study Slideshow.22295924.pdf

### Anaphylactic Shock – A Frightening Cautionary Tale

Dan Maughan reported on a harrowing stinging incident that put his wife Larissa in the emergency room. Dan and Larissa were moving bees on a hot evening. Larissa's suit was not all the way zipped up in front. One hive that they were moving had bearded on the front: they saved that colony for last to give them as much time as possible to go back in, but finally, Dan had to lift it up and get going. A bunch of the bees fell down on the plywood in front of the hive, so while Dan moved the hive, he asked Larissa to hand him the plywood. They had not smoked the bees because of the fire danger, and when she bent down to them, the bees flew up into her veil. She ran and took off the veil, trying to shake out the bees, but she took at least 40 stings to her throat and head area. In about 7 minutes, she was unconscious.

The EMS met Dan and Larissa on the road as Dan was driving to Providence Hospital: her initial blood pressure reading was 80/50, and it got even lower. They gave her two epi-pen injections in the ambulance, then more at the hospital, but the effect only would last about an hour. The doctors and ER nurses had never seen this kind of reaction before. Dan was called into the ER to identify the stingers: they found 17, but Dan estimates that there were two to three times more than that, all in her neck and head region where there are many blood vessels.

They put Larissa on an epinephrine drip: this can damage veins, and they didn't want to leave the drip in too long, but felt they had little choice. Amazingly, her trachea did not swell up: later, Larissa described the labored breathing as more like an asthma attack: the airway was there, but muscles were not functioning. Larissa was in the ER all night; in the morning, she was moved to the ICU, and was able to go home the day after that. Dan described this as a very humbling experience: a scary situation that he never imagined would happen. They now have generic epipens from Target, and Dan has moved all their bees to eastern Washington, where they are pollinating buckwheat. When he brings them back, he will put them a good distance away from his house. One member reported that Russ Music had a reaction to his first bee sting, and that his doctor told him to get rid of his bees, which he did. Dan said that family comes first: he loves bees and is going to try to figure out how to work this out.

Question: will Larissa be allergic to bee venom now? This is a hard question to answer. It isn't clear whether what she experienced was anaphylactic shock from an allergic reaction, or from a toxic reaction due to the sheer volume of venom. Dan said they are going to try VIT, the immunization therapy. Dan asked Danny whether it is true that one can be more susceptible after a reaction like this. Danny said there is no consistent response: some get more resistance some less.

Some research information: Once a person has been stung, a blood test will show positive for honey bee venom allergy. However, the test does not predict future reactions well and may have false positives - according to Golden *et al*, 2016, "Positive serum or skin test results for venom IgE are present in more than 20% of healthy adults, especially in the months after a sting. However, only 5% to 15% of those with such asymptomatic sensitization will have a systemic reaction to a subsequent sting, and most will lose the sensitivity over time. In contrast, patients with a history of anaphylaxis to a sting have a mean of almost 50% frequency of systemic reaction to a sting. Patients with large local reactions have less than 10% chance of a systemic reaction (and <5% chance of anaphylaxis). However, no test predicts the severity of a sting reaction (other than basal serum tryptase)." {Golden *et al* 2016: http://www.annallergy.org/article/S1081-1206(16)31270-4/fulltext }

VIT (venom immunization therapy) has been shown to be effective: one study recorded 98%

effective (see Golden, above). For diagnostic issues, see Jakob et al 2017: <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5406443/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5406443/</a> For a Q&A by an allergist, see <a href="http://www.aaaai.org/ask-the-expert/venom-testing-local-reaction">http://www.aaaai.org/ask-the-expert/venom-testing-local-reaction</a>.

#### **LCBA August Business Meeting**

*Treasurer's Report:* Rick Battin reported that LCBA's current general account balance is \$8,768.81. In the previous month, \$157.65 was spent on 10 deeps, 50 frames, and foundation for the hives at our club apiary. Overall this year, the club has spent \$396.07 on the apiary, so we are still under our budgeted \$500 for apiary expenses. Earlier, VP Bob Harris purchased 8 ten foot four-by-fours to elevate the hive; \$112.80 has gone for sugar to feed the bees – we have gone through 100 pounds of sugar already!

**Youth Scholarship Account:** Rick reported that \$1,972.44 is our Youth Scholarship account balance. A new member asked how Youth Scholarship winners are determined: Kevin explained that criteria and application forms are on the club website under "Youth Scholarship Program": any Lewis County youth who will be in 6<sup>th</sup> to 10<sup>th</sup> grade in 2018, including home schooled students, are eligible to apply, provided that they are from families that have not previously kept bees and that they are willing to meet the educational and volunteer commitments explained in the materials.

**LCBA Savings Account:** Kevin noted that for greater security, the board has decided to move some of our funds to a savings account that would require two signatures for withdrawals.

Apiary Report: Speaking of our club apiary, Kevin reported that we now have 5 thriving coloniese on site. He thanked Cody, our apiary manager, and his volunteers, for all the time they have put in with feeding schedules and inspecting bees. Cody noted that our volunteers are Mel Gregorich, Phil Wilson, Nancy Toenyan, and that Bob Harris, our apiary host, and Dan Maughan have all helped. Volunteers are taking turns going out once a week to feed the bees and take notes on how they are doing. One colony will be in the Fair observation hive one of the days – the Russians are strong enough to go to the fair. If you are interested in helping with the apiary, please contact Cody at <a href="mailto:codywarren68@gmail.com">codywarren68@gmail.com</a> - he can get you involved. Also, our next workshop, September 16 on fall management issues, will be at the apiary, so Kevin encouraged members to come and check out our set up.

Southwest Washington Fair: Secretary Susanne Weil reported that many members stepped up in response to our call for volunteers to staff our exhibit at the Fair. Tickets and parking passes had been mailed to volunteers, and Susanne asked that if anyone who did not get them, please let her know asap. Plans were set for an exciting exhibit, with the honey judging to be done on Tuesday the 15<sup>th</sup>, the observation hive being brought in daily by board volunteers, many educational displays, a new "be the face of the bee photo board" donated by Cody Warren, and our People's Choice Honey Tasting set for National Honey Bee Day, Saturday the 19<sup>th</sup>, as well as Sunday the 20<sup>th</sup>. Everyone is encouraged to visit! [For details on LCBA at the Fair, see the special report and pictures later in this newsletter.]

*Mentor Program:* Dan encouraged mentors and mentees not to give up on each other as we come toward the end of active bee season – we need to do the hard work of preparing our bees for overwintering. Dan encouraged especially new beekeepers to come to the September 14 monthly meeting on specific methods to help bees overwinter, as well as the September 16 workshop, when we will demonstrate how to build moisture control boxes – and in fact build them for the club apiary – as well as look at feeding options and Varroa control methods.



# 1st Annual Mite-a-Thon Sept 9 - Sept 16: Bee Informed Partnership requests your participation! Here is their message:

"Thank you all again for participating in our Annual Loss and Management Survey! We are contacting you again with the hopes that you will join us in a National effort to monitor for Varroa mites. The Bee Informed Partnership is proud to be a supporter of the first annual Mite-A-Thon that will take place Saturday, September 9 to Saturday, September 16, 2017 and we invite you to participate!

The Mite-A-Thon is a national effort to collect mite infestation data and to visualize varroa infestations in honey bee colonies across North America within a one week window. All beekeepers will be asked to participate, creating a rich distribution of sampling sites in Canada, the United States, and Mexico. Their varroa monitoring data will be uploaded to www.mitecheck.com. You will be able to see Varroa levels in your region on this dynamic site! Click on it frequently to see the heat maps and view infestation levels during this critical beekeeping month.

OBJECTIVE: 1) Raise awareness about honey bee colony varroa infestations in North America through effective monitoring methods. 2) Management strategies will be made available for discussion within bee organizations utilizing Mite-A-Thon partner developed information and outreach materials.

PARTICIPANTS: All beekeepers are welcome to participate!

DATA COLLECTION: Participants will monitor the level of mites (number of mites per 100 bees) using a standardized protocol utilizing two common methods of assessment (powdered sugar roll or alcohol wash) and then enter data, including location, total number of hives, number of hives tested, local habitat, and the number of Varroa mites counted from each hive. The published information will not identify individual participants.

COST: There is no cost. You can create your own test materials or kits can be purchased online."

For more information, visit: <a href="http://www.pollinator.org/miteathon">http://www.pollinator.org/miteathon</a> . For demonstrations of mite treatments, come to LCBA's September 16 workshop, 10 a.m. to noon – to RSVP and get directions, email secretary@lcba.community.

# SOUTHWEST WASHINGTON FAIR ~ LCBA HIGHLIGHTS

For the 5th year, LCBA mounted a large educational exhibit at the Southwest Washington Fair. Almost 40 energetic and dedicated volunteers, including our Youth in Beekeeping Scholarship students, had fun answering questions about honey bees and beekeeping. A new highlight was the "Bee the Face of the Bee" photo board made for LCBA by Apiary Manager Cody Warren.

**The Observation Hive:** Our Observation Hive, as always, was the star of the show, fascinating visitors who found the queen, watched baby bees emerge, and observed hive behavior. Board members brought different bees each day so that none were left unattended overnight nor stressed unduly by being away from their colony for days.





Above left, young visitors enjoyed "Bee the Face of the Bee & Flower" photo board, constructed by Cody Warren and his daughter in law. Above right, a young bee observer seeks the queen in the Observation Hive. Below left, Youth Scholar Rylea Shan Powell answers questions at the Observation Hive on Children's Day; below right, mentor, Gottfried Fritz, with a throng of visitors on Sunday, Family Day.









The "Official" Fair Honey Contest: The 22 entries in the Honey Judging contest were assessed by LCBA's Education Coordinator, Peter Glover, following the guidelines outlined at our June meeting. Grand champions Steve Howard and Dan Maughan reprised their 2016 victories, this time with 2 perfect scores apiece (as well as a 99/100 each for their 3<sup>rd</sup> honey entries. Additional blue ribbons went to Phil Wilson, as well as to Cody Warren for his mead entry (a first for this contest!) and to Youth Scholar Rylea Shan Powell for her chunk honey. Red ribbons went to Kevin Reichert, Cody Warren, and Maranda Miller, as well as to Rylea for her cut comb honey. White ribbons went to Lori Eades, Kevin Reichert, Pamela Daudet, and James "Buck" Duncan. All entrants were emailed the "honey rubrics" so that they could see how their score was calculated. Many thanks to all entrants: our honey display, ranged from white honey to dark amber, made a beautiful spectrum to display to the public and showcased members' good work.







Above left, 2016 Youth Scholarship student Sam Mittge won an Honorable Mention as the only youth to enter bottled honey in the official Fair contest; middle, Rylea with her blue ribbon Chunk Honey; right, Kevin Reichert regains his title as People's Choice Honey Tasting Champion for his dark amber honey.

*The People's Choice Tasting Challenge:* To wrap up the week, LCBA celebrated National Honey Bee Day not only on Saturday, August 19, but also on Sunday with our People's Choice Honey Tasting – visitors tasted 22 different local honeys; over 380 voted for their favorite. Tasters marveled at how even similar-looking honeys can taste so different - reflecting the floral

fingerprint of what the bees foraged on. LCBA's president, Kevin Reichert, won decisively with 46 votes for his dark amber honey from north Centralia. This was Kevin's 4th win in the 5 years LCBA has run the contest! Coming in second was Cody Warren, with his striking wildflower honey from Rainier. 3rd place went to James "Buck" Duncan, for his extra light amber honey his bees foraged wetlands by the Skookumchuck & evidently found some pretty tasty stuff there. 4th place went to Mary Ellen & Phil Wilson, with their extraordinarily dark amber honey.





Above left, Rick Battin tastes honey as Cody answers questions about Dan's fireweed honey; right, the tasting station was busy both days – Pam Daudet is answering questions at the end of the table.

Dan Maughan tied with himself for 5th place, with his unusually flavored blackberry & Queen Anne's Lace honey from Adna and fireweed/wildflower blend from Boistfort. 6<sup>th</sup> place went to Cody for his Rochester clover honey; 7<sup>th</sup> was a tie between Mel Gregorich, with his Winlock amber honey, and Susanne Weil & Peter Glover with their blackberry/wildflower Onalaska honey. (The other entries also got votes & love – if you'd like to know your vote count, check with Susanne.) Dan and his children also entered a ringer – Kentucky Fried Chicken "honey" packets squeezed into a half-pint jar – so that visitors could taste the difference between real honey and a substance that lists honey as its 4th ingredient – a big surprise to many visitors! Cody brought a jar of Dollar Store honey, and on the 2<sup>nd</sup> day, we segregated these two items so that visitors could consciously compare and contrast.

Thanks to Our Volunteers: Without those who stepped up to staff our exhibit, LCBA could not have had such an effective educational outreach at the Fair. Thanks are due to all who volunteered and loaned gear for the exhibit: Chuck Ament, Rick Battin, Gordon Bellevue, Ron Black, Pamela Daudet, Gillian Davis, James "Buck" Duncan, Gottfried Fritz, Peter Glover, Mel Gregorich, Danny Halverson, Peggy Hammer, Dawn Hanson, Bob Harris, Steve Howard, Grant & Dianne Inmon, Dan Maughan, Maranda Miller, Harold Mullins, William Pittman, Kevin & Jeanne Reichert, Don Schaefer, Reena Schiele, John Stevenson, Nancy Toenyan, Cody Warren, Susanne Weil, Phil & Mary Ellen Wilson, Grant Wiltbank, Erik Wingren, Jennifer Winter, and our Youth Scholars, Rylea Shan Powell, Adam Claridge, and Emily Ecklund (2017) and Sam Mittge (2016).

# **RECIPES OF THE MONTH ~ Starring HONEY**

# 2 Recipes from WSU Extension's "Crimson Pride" Summer Newsletter

# **Grilled Pineapple**

#### Ingredients:

- 1 fresh pineapple peeled, cored & cut into 1 inch rings
- 1/4 teaspoon honey
- 3 tablespoons melted butter
- 1 dash hot pepper sauce



#### Directions:

Place pineapple in a large resealable plastic bag. Add honey, butter, hot pepper sauce, and salt. Seal bag, and shake to coat evenly. Marinate for at least 30 minutes, or preferably overnight. Preheat an outdoor grill for high heat, and lightly oil grate. Grill pineapple for 2 to 3 minutes per side, or until heated through and grill marks appear. Prep: 5 minutes; Cook: 10 minutes; 12 servings, 46 calories. Source: http://allrecipes.com/

# **Succulent Grilled Peaches With Honey Chevre**

#### Ingredients:

6 ounces chevre (soft goat cheese)

- 2 tablespoons skim milk
- 1 tablespoon honey
- 4 fresh peaches, halved and pitted
- 8 mint leaves

#### Directions:

Preheat an outdoor grill for medium heat, and lightly oil the grate. Combine chevre cheese, milk, and honey in a small bowl. Grill the peaches cut sides down until peaches begin to caramelize and show grill marks, 5 to 7 minutes. Fill each peach half with 1 tablespoon of the cheese mixture. Garnish with a mint leaf, and serve warm. Prep: 15 minutes; Cook: 5 minutes; 8 servings, 99 calories. Source: <a href="http://allrecipes.com/">http://allrecipes.com/</a>



#### **BEES IN THE NEWS**

"33 to 35% Bee Colony Losses in 2016-17, According to the NASS and Bee-Informed Partnership." Dr. Dewey Caron will be LCBA's October 12 speaker; he will cover not only loss data, but how these correlate with bee management practices. For data, visit: <a href="https://beeinformed.org/2017/08/22/bip-national-loss-survey-comparison-with-nass-results/">https://beeinformed.org/2017/08/22/bip-national-loss-survey-comparison-with-nass-results/</a>



"Varroa Mites - Bees' Archenemies - Have Genetic Holes in Their Armor" - American Bee Journal, August 15 2017: <a href="http://mailchi.mp/americanbeejournal/august-15-2017-varroa-mites-bees-archenemies-have-genetic-holes-in-their-armor?e=e9ff21e0bb">http://mailchi.mp/americanbeejournal/august-15-2017-varroa-mites-bees-archenemies-have-genetic-holes-in-their-armor?e=e9ff21e0bb</a>



Flow Hive - Good or Bad for Bees? Bee Culture's Catch the Buzz Calls the Question in this article: "FlowHive, A Method That's Supposed To Make Beekeeping Simpler For Novices, Has Drawn Criticism From Some Experts. Honey On Tap? It's Not Quite That Simple": <a href="http://www.beeculture.com/catch-buzz-flowhive-method-thats-supposed-make-beekeeping-simpler-novices-drawn-criticism-experts-honey-tap-not-quite-simple/?utm\_source=Catch+The+Buzz&utm\_campaign=a461321982-Catch\_The\_Buzz\_4\_29\_2015&utm\_medium=email&utm\_term=0\_0272f190ab-a461321982-256261065</a>

"Bumblebee Queens Have It Tough After Being Exposed To Neonic Pesticides" - Bee Culture's Catch the Buzz, August 15 2017: <a href="http://www.beeculture.com/catch-buzz-bumblebee-queens-tough-exposed-neonic-pesticides/?utm\_source=Catch+The+Buzz&utm\_campaign=df158662af-Catch\_The\_Buzz\_4\_29\_2015&utm\_medium=email&utm\_term=0\_0272f190ab-df158662af-256261065</a>





Beekeepers - Got Bears? Here's a Possible Solution....."Spark Away Is The Way – To Keep The Bears Away" - Bee Culture's Catch the Buzz, August 16, 2017: News story: <a href="http://wlos.com/news/local/jackson-county-invents-device-to-keep-the-critters-at-bay">http://wlos.com/news/local/jackson-county-invents-device-to-keep-the-critters-at-bay</a>; Spark Away Home page / order page: <a href="http://www.spark-away.com/">http://www.spark-away.com/</a>

"Olivarez Honey Bees Breeds 180,000 European, Carniolan, And Saskatraz Queens Every Year, And 100,000 More At Their Hawaii Operation" - Bee Culture's Catch the Buzz, August 24 2017: <a href="http://www.beeculture.com/catch-buzz-ohbs-breeds-180000-european-carniolan-saskatraz-queens-every-year-100000-hawaii-operation/?utm\_source=Catch+The+Buzz&utm\_campaign=c6dbaa401a-Catch\_The\_Buzz\_4\_29\_2015&utm\_medium=email&utm\_term=0\_0272f190ab-c6dbaa401a-256261065</a>



"Have Flowers Devised The Ultimate Weapon Of Distraction? Nectar Not Just A 'Come On' To Bees, It's A Honeytrap!" - Bee Culture, Catch the Buzz, August 28, 2017: <a href="http://www.beeculture.com/catch-buzz-flowers-devised-ultimate-weapon-distraction-nectar-not-just-come-bees-honeytrap/?utm\_source=Catch+The+Buzz&utm\_campaign=3f373b9dc1-Catch\_The\_Buzz\_4\_29\_2015&utm\_medium=email&utm\_term=0\_0272f190ab-3f373b9dc1-256261065</a>



""Thousands Of Asian Hornets Swarm Over Innocent Fire Service Drone. Never Mind Robots, Get A Load Of These Winged Horrors!" - from Bee Culture's Catch the Buzz, Sept 10 2017: <a href="http://www.beeculture.com/catch-buzz-thousands-hornets-swarm-innocent-fire-service-drone-never-mind-robots-get-load-winged-">http://www.beeculture.com/catch-buzz-thousands-hornets-swarm-innocent-fire-service-drone-never-mind-robots-get-load-winged-</a>

horrors/?utm\_source=Catch+The+Buzz&utm\_campaign=f87b68f5a3-Catch\_The\_Buzz\_4\_29\_2015&utm\_medium=email&utm\_term=0\_0272f190ab-f87b68f5a3-256261065



"Solar Power and Honey Bees Make a Sweet Combo in Minnesota: The Pollinator Friendly Solar Act has solar companies and commercial beekeepers working together": <a href="http://www.smithsonianmag.com/innovation/solar-power-and-honey-bees-180964743/#QDkHKWilSxjyc4RL.99">http://www.smithsonianmag.com/innovation/solar-power-and-honey-bees-180964743/#QDkHKWilSxjyc4RL.99</a> [Photo above: Connexus Energy's SolarWise garden in Ramsey provides habitat for pollinators. (Fresh Energy)]

"This miracle weed killer was supposed to save farms. Instead, it's devastating them": The Washington Post, August 29, 2017: A new Monsanto herbicide is killing honey bees and other pollinators. Thanks to Phil Wilson for this link:

 $\frac{https://www.washingtonpost.com/amphtml/business/economy/this-miracle-weed-killer-was-supposed-to-save-farms-instead-its-devastating-them/2017/08/29/33a21a56-88e3-11e7-961d-2f373b3977ee\_story.html.$ 

#### BEE BEARDING IN THE NEWS!





Beekeeper Emily Mueller was on her way to a maternity photo session when she captured a swarm of bees - she brought them along to be photographed, too, and made headlines with these amazing pictures! Thanks to Phil Wilson and Shelby Camenzind for the reference. Here is a link to the story: <a href="http://www.dailymail.co.uk/femail/article-4841414/Pregnant-mom-poses-maternity-shoot-20-000-bees.html">http://www.dailymail.co.uk/femail/article-4841414/Pregnant-mom-poses-maternity-shoot-20-000-bees.html</a>



"Man sets new Guinness world record for wearing a bee beard in Toronto -New record of 61 minutes breaks previous record of 53 minutes, 34 seconds":

Article: http://www.cbc.ca/.../guinness-world-record-bee-beard-1.42693...

Video from BBC News: http://www.bbc.co.uk/news/world-us-canada-41127644

### **ANNOUNCEMENTS**

From Harold Weaver at Beeline Apiaries: "Good day to all beekeepers, I hope you have had a good summer with the bees. There was a good honey flow; even hives started from packages have some honey that can be pulled off! Now is the time to think of treating for mites. We have the Mite-Away Quick Strips, Apiguard and Hopguard in stock. Another thing to be checking — their food supply. It may be good to give some more sugar syrup so they don't eat too much of their honey stores! We have syrup in stock here; so bring your pails to fill up! We also were able to get some sugar. We offer 6 lb. bags for \$2; 25 lb. for \$8; 40 lb. for \$12. Bring your own pails to put it in or buy a bucket from us! We have a limited supply so come get it before it is gone! If we don't have something in stock that you need, we can get it for you!

Thank you for doing business with us! We look forward to your continued support!

Harold Beeline of WA 360-280-5274

Never-Used VARROX Vaporizer with 2 lbs oxalic acid for sale - \$155 total. LCBA member Courtney Miller can deliver the vaporizer to Chehalis/Centralia most any day or someone can pick up from her in Salkum. Her phone is 360 623-9532 and her email is <a href="mailto:camseven.miller@gmail.com">camseven.miller@gmail.com</a>.

**Do You Sell Wax?** If you are an LCBA member and would like to be listed on LCBA's Buy Local Honey page, please email secretary@lcba.community with your contact information, prices, and a photo if possible.

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)