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## July 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](mailto:secretary@lcba.community) or call 360 880 8130*

## UPCOMING EVENTS



*Above left, Shelter #2 at Lintott Alexander Park; right, Kimo Thielges & Kevin & Barb Cearley at our 2016 potluck enjoying food & fun items won at the drawing to support our Youth Scholarship Program.*

### **Saturday, July 8: LCBA's 9<sup>th</sup> Annual Summer Potluck**

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

**When & Where: 4-8 p.m., 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. Shelter #2 is adjacent to a large field, so you're welcome to bring dogs, Frisbees, ball games!

**Please bring:** A dish to share, plate, cutlery – and family! All ages are welcome. LCBA will provide water, pop, napkins. FYI, park management requests no alcohol at this event.

**Drawing for 2018 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 us involve more young people whose families are new to beekeeping, please consider bringing an item to donate!



*Above, scenes from last year's Summer Potluck. We hope to see you this year!*

## Saturday, July 15: Removing Honey Supers Safely / Testing & Treating for Varroa Mites



*Above left, LCBA members assessing honey frames at last year's supers removal workshop; right, Treasurer & Journeyman beekeeper Rick Battin demonstrates the sugar-shake method for Varroa testing.*

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

**Where:** Please RSVP to [secretary@lcba.community](mailto:secretary@lcba.community) for location & directions.

**What:** For those who are getting ready to remove supers for the first time – or who have done it before, but would like to see alternative methods – we'll demonstrate the fume board, bee escape board, blower, & "brush & run" methods. Tips on honey storage, too. Also: how to test for mites using not just the slider board, but the sugar shake and alcohol methods. General bee Q&A & refreshments to follow.

## Saturday, July 29: Honey Extraction Workshop



*Scenes from our 2016 Honey Spinning – first, you uncup; then, you load the extractor; next, you spin; finally, you harvest your honey! It all goes faster with a little help from your friends.*

**When & Where:** Times & Location TBA

**What:** If you'd like to show your honey at the Southwest Washington Fair – or just want to have some of your girls' product to enjoy – but don't have extraction gear, this workshop is for you! Honey extraction will be by appointment – LCBA members can sign up at the July 8 potluck, or email [secretary@lcba.community](mailto:secretary@lcba.community). There'll be 3 uncapping/spinning stations & 3 different time slots. Visitors are welcome, but only LCBA members can use club extractors & equipment to extract honey. Limit: 2 honey supers. If you can't make these dates but want to spin honey, contact Susanne & we'll see what we can work out for you.



*Some Longer-Term Upcoming Events ~ Mark Your Calendars!*



**Thursday, August 10: LCBA Monthly Meeting**

**Dr. Danny Najera: Mite-Busting! Strategies for Combatting Varroa in Your Apiary**

**Saturday, Aug 19: 4th Annual Oregon Honey Festival, Ashland, Oregon**

If you would like to be an exhibitor/vendor, please get in touch with the festival managers at [oregonhoneyfestival@outlook.com](mailto:oregonhoneyfestival@outlook.com) or visit their webpage: [www.oregonhoneyfestival.com](http://www.oregonhoneyfestival.com).

**September 5 - 8: Western Apicultural Society of North America 2017**

40th Anniversary Conference, UC-Davis, California; for info, visit:  
<http://www.westernapiculturalsociety.org>

**Saturday, September 9: Randy Oliver Talk in Everett, WA, 1-5 pm**

Registration: Only 300 seats available, so please buy your tickets early (on sale April 15th).  
Price: \$25, available through <http://www.brownpapertickets.com> by searching for Randy Oliver.

**Thursday, September 14: LCBA Monthly Meeting**

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

**Thursday, October 12: LCBA Monthly Meeting**

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

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

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

**Saturday, December 9: LCBA's Holiday Potluck, this year at Borst Kitchen #1: more details later!**

## THURSDAY, JUNE 8 ~ LCBA Monthly Meeting Notes

### Opening Announcements

LCBA President Kevin Reichert opened the meeting with announcements. First, we have distributed the rest of the garden lid-style hive tops: members paid a total of \$867.50 to Lewis County Work Opportunities. People have liked these garden lids, and if more members are interested, we could place another bulk order later in the summer. Walt Wilson noted that bees beard less on these garden lids, probably because of the extra ventilation. Kevin notes that our purchase benefits disabled people, and he appreciates the support LCBA members showed for our community.

Cody Warren announced a special carve-out of three colonies from a toolshed on Aubrey Lane in Onalaska to take place on Saturday, June 17, 7 a.m.: these bees will go to our developing club apiary. Cody asked for volunteers to cut and pin comb. He noted that everyone will get the chance to cut and pin comb – a great learning opportunity. Bob Harris is donating the woodenware. Cody passed around a sign-up sheet; Susanne will email details. Bob also brought in free back issues of *Bee Culture* for members to take home.

### Honey Judging at the Southwest Washington Fair ~

#### Education Coordinator Peter Glover



*Above left, honey entered in the 2016 Southwest Washington Fair judging; right, 2016 Youth Scholars Josiah Cowin and Sam Mittge look on as Education Coordinator and honey judge Peter Glover assesses moisture content in a honey entry.*

Kevin introduced Peter Glover, LCBA's Education Coordinator, who judges honey at the Southwest Washington Fair. Peter pointed out that paradoxical though it may seem, the taste of honey is not part of honey judging contests – honey can have many diverse tastes, and so judging based on taste is purely subjective.

***Honey Judging at the Southwest Washington Fair – the History:*** Peter explained that honey judging in the U.S. goes back to the 1800s and originally was advertising for commercial beekeepers. The Eastern Apicultural Society developed the standards that are used or adapted by state and county fairs. LCBA members began to enter our local Southwest Washington Fair contest in 2012: the Fair had no one skilled in judging and awarded ribbons based on size of entries. The Agricultural Supervisor, Sandy Grady, asked LCBA to take on the judging, and longtime beekeeper Roy Schaafsma of Castle Rock volunteered. In 2013, there were nine entries Roy awarded Sharette & Alisha Giese the blue ribbon in the dark honey category; for amber,

Kevin Reichert & Grant Inmon tied with several others. (The tags hide the names so that the judge doesn't know whose honey is whose.)



*Above left, Roy Schaafsma judging honey in 2013; middle, honey shared display space with eggs in 2013 – note that jars were not uniform. In 2014, we moved to Queenline pint jars for a cleaner presentation.*

In 2014, Roy asked the club to find someone to take over from him for 2015, so Peter apprenticed with Roy. In 2013, there had been no requirements for uniformity of jar types or sizes, so the exhibit looked a bit of a hodge-podge; for 2014, the Board decided to require Queenline jars, the industry standard, and made them free for our members, a tradition that we have continued. 16 jars were entered in the 2014 contest, and Dan Maughan was awarded “best in show” by Sandy Grady for the clarity & color of his honey.

2015 saw 34 jars of honey entered by LCBA members! Peter commented that this was a welcome surprise (though it did take quite a bit of time to judge all those jars). Steve Howard took the top honors with his amber honey: there were many strong entries that scored in the 90s, but Steve's scored 100%.

In 2016, we had 19 nicely presented jars of honey, entered by 11 LCBA members: Best in Show honors were shared by Steve Howard and Dan Maughan, each of whom scored 99% of possible points for their amber honey. Blue ribbon honors were won by Pamela Daudet, Steve Howard, and Chris Weedon; red ribbons were won by Barb & Kevin Cearley, Kevin Reichert, Lisa Sills, and Phil Wilson; and white ribbons were won by Steve Howard, Harold Mullins, Dan Maughan, and Mary Ellen Wilson. The long-delayed spring of 2016 probably caused fewer entries – many did not have honey ready in time for the Fair.



*Left, Steve Howard & Dan Maughan shared 2016 Best in Show honors; right, refractometer in action*



**How is honey scored? First, moisture content:** Peter noted that lacking Roy’s long term expertise, he drew criteria from the EAS and sought tools to help. First, he uses a refractometer to determine whether an entry actually is honey. If there is over 18.6% moisture content, then, by law, it is not honey. Peter noted that the refractometer is calibrated with distilled water between measurements. Denser honey is more desirable, so there are three points classes (see rubric, below): any entry that does not earn full points on first measurement is measured again, sometimes even three times. To avoid having honey that has too much water content, be sure to spin frames of honey that are capped; avoid spinning frames with much uncapped nectar or “shake” honey.



Above left, crystals seen through a polariscope (Image: Wyatt E. Mangum, 200 Top Bar Hives: The Low-Cost Sustainable Way); right, Peter uses the club polariscope built by Martin Stenzig to assess crystallization in an entry.

**Color classifications:** The next characteristic to judge is color; Peter explained that we use Jack’s scale, a set of color strips for measurement. Jack’s scale uses “Phund numbers” on color tabs, rather like paint tabs; each tab shows the millimeter measurement for each color. The color classes are water white, extra white, white, extra light amber, light amber, amber, and dark amber; most of our entries fall into the light amber and amber categories.

**Polarization and clarity of presentation:** Honey judges look for clear, bubble-free, debris-free honey. Imperfections in honey, such as bee parts and foreign objects, air bubbles, honey that is starting to crystallize in the container, and small bubbles of water released during fermentation, all cause an exhibit to be downgraded.

To best judge the degree of imperfections, judges use a polariscope like the one that Martin Stenzig built for LCBA. Light from a strong source first passes through a sheet of polarizing material that allows only light vibrating along a single axis, say north-south, to pass through. The object is then viewed through a second polarizing sheet with its axis at right angles to the first, i.e. east-west. With nothing between the two sheets, no light should be visible to the observer, at least in theory. However, when a jar of honey is placed between the two, the light arriving at the second sheet is no longer polarized in just the north-south orientation if any small imperfections such as tiny crystals or bubbles are present, as these cause scattering of the incident light. In the case of honey that looks cloudy in sunlight, it is possible to tell whether the cloudiness is due to pollen present in the honey, or crystallization. Crystals show up as bright points of light, much

brighter than cloudy pollen (see image above). Bubbles may also result from air trapped in the honey while jars are being filled. These are usually larger than bubbles due to fermentation, and tend to dissipate over time.

**Entry categories at the Fair** are comb honey, light honey, amber, dark amber, wax, and “other.” Peter noted originally, the “other” category in the Eastern Apicultural Society included baked goods; we have no idea how we would judge those!

**Honey Scoring Criteria:** Peter displayed the scoring rubric used at the Fair (see below). We differ from the larger fairs by asking for only one Queenline jar of honey - at the State Fair in Puyallup, they require 3 jars. This rule originated from the EAS’s concern about uniformity of product quality. Peter asks that members submit only one jar UNLESS they have two genuinely different honeys from two different pulls: for example, last year Mel Grigorich submitted an early maple honey and a later blackberry honey.

### **HONEY JUDGING SCORE CARD: Southwest Washington Fair, 2017**

**Entry #:** \_\_\_\_\_

#### **Point Scoring Items: Judge’s Remarks**

\_\_\_ / 20 **Maximum Density (measured by refractometer: over 18.6% moisture is disqualified)**

**15.5 – 17.0: 20 pts**

**17.1 – 18.0: 15 pts**

**18.1 – 18.6: 10 pts**

\_\_\_ / 10 **Absence of crystals**

\_\_\_ / 40 **Cleanliness (no wax chunks, bee body parts, foam, lint, dirt, etc.)**

\_\_\_ / 10 **Flavor: points reduced for honey affected by processing/scorching**

\_\_\_ / 10 **Container appearance (cleanness, neatness)**

\_\_\_ / 10 **Accuracy of filling (precise jar filling: head room between 3/8” & 1/2” w/no visible gap between honey level & cap)**

\_\_\_ / 100 **TOTAL**

#### **Tips on preparing your honey for the Fair:**

Peter recommends that members spin their honey and let it settle at least two weeks before the Fair. Filtering honey is not required. For those who do filter, 400 microns is lowest filter we allow: if you filter more finely, then you are filtering out your pollen, which is what makes our honey raw honey. If you don’t filter, you can simply let the wax and debris rise, then skim it off before you pour. However, if you have a bucket with a gate at the bottom (see below), you don’t need to skim it off. As noted above, leave the honey in jar for a few days before showing so that the air bubbles can dissipate.





*Above left, debris will float to the top in the extracting bucket; after a few days, the debris will rise, and you can open the gate to fill bottles of honey; right, let them sit a few days for the bubbles to disappear.*

**Further tips on presentation:** There may be some foam in your honey: let it rise, then skim it off before entering in the Fair. You may have to top it up: it's important to be sure that you fill the jar to  $\frac{3}{8}$  to  $\frac{1}{2}$  inch below the lid. Viewers should not be able to see the gap between the lid and the honey (see photos below). The reason for this rule is that if a beekeeper sold honey with that visible gap, he/she could run into trouble with an inspector of weights and measures – it would be “shorting the customer.” One pound is the basic unit for selling honey.



*Above, two easily-avoided mistakes that cost points in a honey judging: skimmable foam left on top (left) and a visible gap between the lid and the honey (right).*

**Queenline jars are free to LCBA members:** Susanne passed around a sign-up sheet for members who are planning to enter their honey in the Fair contest; Queenline jars were available at the meeting and will also be at the July 8 potluck. If you missed the June meeting and can't attend the potluck, but want to enter honey, contact Susanne at [secretary@lcba.community](mailto:secretary@lcba.community) to arrange getting your Queenline jar(s).

**Cut comb honey entries:** Cut comb used to be the popular way to eat honey, almost like chewing a honey gum. It is coming back into style. The key to a good presentation of cut comb

honey is placing one pound of neatly cut comb in a plastic clamshell container. All of the honey should be capped (see photo below). Dan asked whether there are any specific container types: Peter answered that they are typically 4.5 by 4.5 inches. Catalogs like Mann Lake's sell them. Gottfried Fritz noted that supering with shallow, foundationless frames make harvesting cut comb much easier.



*Above left, a near-flawless cut comb entry by Jen Reiman in 2015; middle, a one-pound bar of wax; right, a winning beeswax candle entry by Richelle Jackson in 2016.*

**Entering Beeswax:** Morse and Morse, authors of *Honey Shows*, the classic book on judging bee products, rate Canary Yellow beeswax as the highest grade. Other criteria include cleanliness – that is, freedom from debris – and freedom from bad odors, particularly odors due to fermentation: this means that only unscented candles should be entered (beeswax has its own wonderful smell!). Also important is uniformity: freedom from layering, bubbles, scratches and dings, and good conformity to the mold used. Judges also look for freedom from cracking and shrinkage: to avoid these, cool the wax slowly, and wrap it in plastic during storage. For those submitting one-ounce bars, choose the best three to submit; if a pound, submit the best sample you have.

Peter closed by emphasizing that even though the rules and criteria may seem complicated, following the tips above will help. LCBA hopes that many members will submit their honey this year!

**People's Choice Tasting Contest:** LCBA's other honey contest at the Fair is the People's Choice Tasting. Members submit honey in half-pint jars – which will be available for members at the July 8 potluck – and visitors to the exhibit taste all the samplers, then cast a ballot for their favorite. This contest lets members of the public experience the wide range of different flavors of raw local honey, and Susanne commented that each year, it is fun to see visitors' astonishment at how many different flavors of honey are possible – the floral footprints, so to speak, of the bees' foraging area. LCBA started this contest in 2013, and Kevin Reichert won with his marionberry honey (rich and with almost wine-like tones) in 2013, 2014, and 2015; in 2016, Susanne and Peter's blackberry/wildflower honey won.

One interesting feature of our 2016 contest was Dan Maughan and sons' stealth high fructose corn syrup entry: this honey was doctored with vanilla and rum extracts, among other artificial components, and the fact that it came in 6<sup>th</sup> suggests that our work as beekeepers educating the public is far from done! Susanne encouraged members please to submit their honey for the tasting to help us introduce visitors to the taste of real honey.

## Supering for Honey ~ Mentor Steve Howard

Kevin thanked Peter for his informative presentation, then introduced LCBA mentor Steve Howard, who spoke about ways that those interested in showing (or just enjoying) honey can maximize their chances of getting it from their bees. Steve asked how many first or second year beekeepers were in the audience – about a dozen – then focused on what to do at the start of the year to encourage bees to build up. He showed a slide with two deep hive boxes, noting that at the end of the winter, he reverses the boxes because bees move up in winter, leaving behind a bottom box that is mainly empty. Reversing boxes gives the bees a place to move up to, which helps deter swarming.

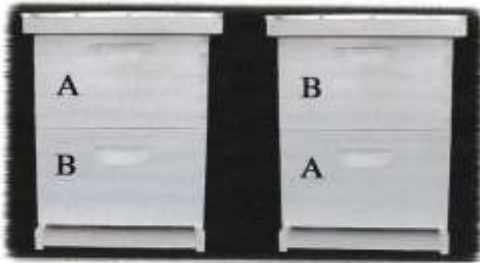


Figure 73. Reversing hive bodies once or twice in spring can help discourage swarming. If most of the bees are in the upper hive body (A at left), then place A on the bottom and B on top (right).



*Above left, reversing boxes in spring (from *The Hive and the Honeybee*; right, Steve numbers his frames and also notes the year when he put them in.*

Linda Bartlett asked when in the spring we should switch boxes: Steve said that he likes to do it in March, when the weather is beginning to warm up, but our seasons vary: for example, this year we had a delayed spring and are just now starting the honey flow, a month behind the norm. Gottfried noted that when you switch boxes, that's a good time to cull old comb from that box that you move up top. Steve added that it's good to note with a marking pen the year when you put in frame so that you can track the age of the comb.

In addition to switching boxes, sometimes it helps to switch frames within a box: this encourages bees to build up and fill comb throughout that entire box. Steve called on Youth Scholarship student Adam Claridge, asking what he and Kevin did when they inspected a hive together (Kevin showed a video of Adam inspecting a hive later in the meeting; see Youth Scholarship update, below). Adam explained the concept of checkerboarding: if the bees are not building on the outer frames, switching a frame on which they have built with an outer frame can encourage them. However, it's important not to break up the brood nest. Next, Steve asked Youth Scholarship student Rylea Shan why you wouldn't want to put a frame like #4, if it was filled with eggs and brood, on the outside; she answered that doing that would chill the brood.

Mel Grigorich noted that the box in the photo has 9 frames: why not 10? Steve noted that after year one, when the comb has been drawn, then having 9 frames in the box is easier: 10 frames with fully drawn comb can be hard to pull and manage in the colony. Dan noted that commercial guys are meticulous about keeping 10 frames pushed together to prevent bridge comb and debris: it is a different approach. Also, Steve noted that metal inserts nailed into the frames can help keep good spacing.

**Why do bees swarm?** Steve pointed out that one answer is genetics: honey bees take “go forth and multiply” seriously, and swarming is how they increase numbers of colonies. The other reason is congestion in the hive: if the beekeeper hasn’t managed well and inspected, and the bees run out of room, they will start making swarm or supersedure cells, and they will go. You can try to cut these cells out, but invariably you will miss one, and they will swarm.



Steve displayed a slide of three colonies (pictured above, left): the colony on the left is a new package of Carniolans which “went great guns” and already has a honey super. The other two are overwintered colonies. Usually people will put a queen excluder between the brood boxes and the honey supers, and usually, they will put the new super on top of the old. Steve does it differently. In the photo above, Steve numbered the supers in the colony on the right – 1, 2, and 3. What Steve does differently is that when he adds a second super, he puts it between the first super and the brood box; when he adds a third, he puts that one between the brood box and the top two supers. This practice is called “supering from the bottom up.” It is heavy work, since a medium super full of honey weighs about 55 pounds. However, this method has worked well for Steve: he has not had a swarm in four years. The queen always has room to go up and lay. If she does that in the bottom honey super, that is fine: there are other supers above with honey, and when eggs hatch out, the bees can fill the cells with nectar later on. Steve recalled how Charles Bennett, the former WASBA vice president who inspected Steve’s apiary for his Journeyman certification, said that he hadn’t had a swarm in years with this method; Steve had also read about it, so he decided to try it. As an example of how well this works, see the photo on the right, above: it has 5 honey supers on! Steve also noted that if you are going to remove and store your supers prior to spinning, you must store them securely, away from bees and other pests.

Gottfried asked if Steve puts frames with drawn comb in his honey supers: Steve said that he has some and tries to intersperse it with new frames. Gottfried commented that if a completely empty super with undrawn comb is placed on top of brood chamber, it seems to act like a stop sign to the bees, so it’s good to add frames with drawn comb if you have them. If not, it can help to spray sugar syrup on the frames. It takes bees a lot of energy to build comb: 7 pounds of honey to make 1 pound of wax.

Linda asked if Steve had a notched inner cover on top of those 5 supers: Steve said that he did, but he also pointed out the drilled holes, which he had added to give the bees more entry points



and ventilation. He doesn't do that any more, though: his bees don't like it and will plug the holes with propolis.

Dan asked whether Steve thought this would be a good honey year: Steve said that there's no way to tell, since it is only really starting now. His yellow transparent apple tree has nothing so far; neither do his Bartlett pears and Gravenstein apple trees. That wind storm in April was really bad for orchards. Peter noted that in March, it rained so much that blooms were knocked right off the trees and shrubs.



Swarms: above left, Steve showed a picture of a swarm that landed in a white cedar, about 4 feet off the ground. He showed a film of his capturing them easily, though they did not stay. A bucket is good to shake them into, and then put a lid on (he showed us a lid with the top cut out and hardware cloth on it: easy swarm gear). If the bees land a little further up, though, it is harder: Steve showed another video in which a ladder and net were needed to make the capture.

The photo on the right, above, shows Steve's swarm box, placed up in a tree. He made one out of plywood, using the same dimensions as a regular hive box, just thinner, more like a nuc. Then, he put some cotton balls soaked with lemon grass oil in a bag and punched in some holes: this can be a good substitute if you have no drawn comb for your swarm trap box. The day before this meeting, Steve saw a few bees coming and going at about 7 a.m.: these were scout bees looking in. By 2 pm, many bees were coming and going (he showed a video of these, quipping that these might even have been some of Kevin's bees, since they are about a mile away). Steve urged new beekeepers to be sure to check your bees every week or 10 days. He likes to have his favorite beekeeper help: see photo below:



Linda asked how high to place the swarm box: Steve said about 10 feet. Maranda Miller asked whether other critters get in, like birds: Steve said no. Gordon says that he puts in nails at an angle in the swarm trap entrance: that deters other critters. Kevin thanked Steve a very useful presentation, and we moved on to our business meeting.

## June Business Meeting

**Treasurer's Report:** Treasurer Rick Battin was at WSU's Beekeeping Short Course (where he immersed himself in another bee beard); in his absence, Secretary Susanne Weil gave his treasurer's report. LCBA's general account balance, as of this meeting, was \$9,898.78, which reflected debiting the \$143.59 spent for the Spring Youth Fair tickets, parking passes, and materials, as well as \$783.20 for clerical expenses for the year to date – copying the handbooks and handouts for the beginning beekeeping class, as well as membership, bee order, hold harmless, and other forms, as well as board minutes and agendas. The Youth Scholarship fund has \$1,222.35. Kevin will deposit the funds from the Lewis County Work Source garden lids. Financially, LCBA is in good shape, Kevin noted.



*Above, LCBA's Club Apiary has received its first bees! Left is a swarm donated by Dan Maughan on June 22; middle are the three nucs donated by Kevin Mills of Hive 5 Bees in Rochester, temporarily located prior to the set-up of hive stands in the apiary; right, feeding the nucs.*

**Club Apiary Update:** VP & Apiary Host Bob Harris said that the apiary ground has been sprayed and cropped. Before the June 17 carve-out, the apiary committee will need to set out 4x4s and cinder blocks for hive stands. The site is also ready for a load of hog fuel. Member Kevin Mills, a commercial beekeeper who is the proprietor of Hive 5 Bees in Rochester, has donated three nucs: one has Russian bees, one has a "mutt bee strain," and one is from Olympic Wilderness Apiary. Kevin M dropped off the nucs at Kevin R's, and Dan, Bob, and Kevin R. took the bees to Rose of Sharon Farm. Bob donated woodenware in which to hive the nucs; the three then installed the nucs and checked on the queens. They are set up in a temporary location until Bob is ready to call in the apiary committee to finish setting up the hive stands. Kevin and Bob reported that these are good colonies with good temperaments; Bob is feeding them. Dan noted that the Russian queen had different looking eyes; Cody Warren, chair of the Apiary Committee, said that he had seen the same thing in Russian bees he has had, along with "torpedo- shaped bodies" in the Russian queens. Kevin and Bob hope to have the apiary up and running for workshops by mid to late summer.



*Above left, 2017 Youth Scholarship student Adam Claridge holds up a nice brood frame; middle, 2016 Youth Scholar Sam Mittge and friend; right, Sam spraying his bees with sugar syrup prior to inspecting.*

**Youth Scholarship Update:** Kevin showed a video from his visit to Adam Claridge, one of this year's Youth Scholars, showing Adam inspecting his bees: this is posted on the LCBA Facebook page under June 8<sup>th</sup>. In the video, Adam used his smoker with gentle puffs to work bees off burr comb, which he then scraped off. He pulled frames and examined brood patterns. Kevin noted that Adam has a gentle touch with his bees. They didn't go into the second brood box, seeing no need, since they saw a good pattern with both larvae and eggs, evidence that queen is laying.

Kevin and mentor Cody reported that Adam is doing well with his bees and has a gentle, deft touch in working them. Adam said that he enjoys working with his bees. Rylea Shan Powell was excited to report that she caught her first swarm! Her mother Apryl was mowing the grass and heard the buzz in the fields behind their house – these were not Rylea Shan's bees that swarmed. They called mentor Gottfried, but he was not at home, so they called on their neighbors, who also keep bees, to help them. Now Rylea Shan has two hives in her apiary! Gottfried reported that she is doing well with her bees. Kevin thanked all the mentors.

Susanne gave an update on last year's Youth Scholarship students, Samuel Mittge and Josiah Cowin. Mentor Gottfried split one of his hives so that Josiah, whose bees died over the winter, could get started again; Susanne ran into him on campus the day before this meeting, and Josiah had just put a second box on his new bees and was very excited about how quickly they are building up. Sam also lost his bees over winter, but he and his father Brian each bought a new package. Brian's queen died, so he had to re-queen, but Sam's bees took off very strongly; as of this meeting, he had put on his first honey super. Since this meeting, Brian, Sam, and Sam's younger sister were called to capture a swarm that neighbor Vic Kucera had heard about: it was hanging from a boat trailer. Sam's sister had wanted to get started with bees, so this swarm is her first colony, being kept at her grandparents' home. See the photos, below!





*Above, the Mittges found a nice sized swarm – they brushed as many as they could into a hive box, then waited until dusk to see how many bees recruited in. Right, 2016 Youth Scholar Sam’s younger sister is excited to have her first colony from this swarm!*

**Community Outreach Update:** Since Bill Barr stepped down as Community Outreach Coordinator, several volunteers stepped forward offering to fill the post. Kevin reported that the board had realized that this position is one of the four up for re-election in December, with calls for nominations taking place in early fall; in that context, the board didn’t think it was fair to appoint someone and then have them almost immediately have to run for re-election. We will run the outreach events – the Southwest Washington Fair and the summer and holiday potlucks, plus any speaker requests that come in – via committees with board liaisons. Kevin thanked the volunteers and encouraged them to nominate themselves for the position when the call for nominations comes out. Secretary Susanne Weil is coordinating the potlucks; Susanne asked for committee volunteers, and a dozen people signed up. Susanne and Dan will coordinate the Fair volunteers and will have a sign-up sheet at the July 8 potluck.

**Mentor Program Update:** Dan has been getting in touch with the mentors to see how things are going. He thanked all the mentors for donating their time and encouraged all the new beekeepers to keep at it and “stay strong” despite swarms and other setbacks. Dan announced that we will have a workshop on Saturday, July 15, 10 a.m. to noon, on ways to remove honey supers safely and methods for testing/treating for Varroa mites. Please RSVP to [secretary@lcba.community](mailto:secretary@lcba.community) to sign up for this workshop and get directions. Also, Bob Harris is hosting our annual honey extraction workshop on Saturday, July 29: there will be a sign-up for honey spinning times at the potluck on July 8, and members who do not have honey to spin this year, but just want to watch the process are welcome (again, please RSVP to the email address above).

**Upcoming Events (for extra details, see pages 2-3, above):**

**Summer Potluck, Saturday, July 8:** Susanne reminded members that our Summer Potluck and Youth Scholarship drawing will be Saturday, July 8 from 4 to 8 pm at Lintott Alexander Park, Shelter #2 (the potluck is our July meeting; there will be no meeting on Thursday, July 6). Members’ children and families are most welcome. There is a big field for tossing Frisbees or playing ball. Canine family members are also welcome! The club will provide water, pop, and napkins; members please bring a dish to share and a plate/utensils. We will have plenty of outlets/extension cords for crockpots.

**Post Meeting Update:** For the drawing, Dan Maughan is donating a nuc box and robbing screen; Susanne and Peter Glover are donating a ventilated bee jacket; there will be a 50 pound



bag of sugar from Reichert's Distributing; LCBA logo mugs from Copy Depot/Precision Printing; and assorted gift certificates to Jeremy's Farm to Table, the Tiki Tap House, the Farm Store, and more. Members are welcome to bring donated items to the potluck if they feel so moved. Drawing tickets will be \$1 each and will support our 2018 Youth Scholarship program.

**Beekeeping Q&A & Miscellaneous Bee Notes:** Kevin reported that overall, he has heard good reports on this year's nuc bees, and mixed reports on package bees. Kevin asked whether anyone was catching swarms, and about ten members reported that they have. Cody got one that probably weighed 8 pounds and was hived in 2 deeps! Steve Howard noted how to put vertical wooden strips into a shallow foundationless frame if you would like an easier method for harvesting cut comb honey. Steve also noted that a turkey cooker works well for wax melting. Kevin noted to be sure to watch your hives – the blackberries are coming, so it's important to be sure the bees have room - try to avoid swarms so that the bees have a strong forager force to maximize their food supplies.

## REGIONAL HONEY PRICES

*Thanks to Kevin Reichert and Dan Maughan for sources for this update.*

May 24's "Catch the Buzz" by *Bee Culture* featured an update on regional honey prices after the long wet winter and delayed spring. Washington belongs to Region 7, which includes Oregon, California, Nevada, and Idaho. *Bee Culture*'s editors comment, "Region 7 was wet, wet, wet. Did we mention it was wet out west this spring? Too much rain, way too much. And as a result work is dry, way behind schedule, as are the bees. So it goes. Losses out west averaged 35% this year." This past June, a pint of honey, sold retail, averaged \$11.58 in our region as of June (the nationwide average was \$10.06); a quart fetched \$19.40 (nationwide average \$16.69). To put this in perspective, last year's prices, nationwide, were \$10.61 retail for a pint and \$16.76 for a quart. For more details, see their comprehensive chart (below).

	REPORTING REGIONS							SUMMARY			History	
	1	2	3	4	5	6	7	Range	Avg.	\$/lb	Last Month	Last Year
<b>EXTRACTED HONEY PRICES SOLD BULK TO PACKERS OR PROCESSORS</b>												
55 Gal. Drum, Light	1.88	2.06	2.36	2.41	2.28	2.16	2.45	1.50-3.60	2.25	2.25	2.09	2.31
55 Gal. Drum, Amber	1.80	2.02	2.03	2.40	2.00	2.13	2.80	1.35-3.50	2.17	2.17	2.00	2.20
60# Light (retail)	209.00	187.50	203.75	203.68	102.60	190.35	232.00	102.60-300.00	202.99	3.38	195.54	200.46
60# Amber (retail)	206.11	185.70	194.00	181.72	125.00	189.48	233.33	80.00-300.00	196.55	3.28	198.05	201.83
<b>WHOLESALE PRICES SOLD TO STORES OR DISTRIBUTORS IN CASE LOTS</b>												
1/2# 24/case	95.97	74.64	85.20	72.31	66.00	86.40	144.00	55.92-144.00	88.81	7.40	81.97	83.00
1# 24/case	134.59	106.55	119.45	104.46	112.08	124.66	199.47	72.00-240.00	128.09	5.25	118.81	119.48
2# 12/case	119.51	96.13	117.22	105.04	98.72	101.60	139.50	79.20-182.40	114.81	4.78	108.33	108.54
12.oz. Plas. 24/cs	112.99	84.03	92.00	89.34	74.70	105.00	125.10	66.00-192.00	100.91	5.61	96.17	97.84
5# 6/case	139.55	108.50	138.00	111.92	102.30	121.00	147.75	71.50-206.00	127.63	4.25	120.00	122.75
Quarts 12/case	188.44	126.91	128.84	132.70	155.32	140.94	172.00	85.00-300.00	146.43	4.07	149.68	144.41
Pints 12/case	113.03	85.88	73.20	105.25	111.00	76.32	96.00	60.00-180.00	92.42	5.13	88.55	94.68
<b>RETAIL SHELF PRICES</b>												
1/2#	5.50	4.38	4.65	4.37	3.53	4.04	7.00	1.98-7.95	4.77	9.54	4.70	4.65
12 oz. Plastic	6.44	4.93	5.44	5.50	6.16	7.18	6.64	3.25-11.50	5.99	7.96	5.73	5.70
1# Glass/Plastic	7.65	6.87	7.50	6.55	6.05	7.01	10.38	3.00-16.00	7.43	7.43	7.01	7.39
2# Glass/Plastic	13.00	10.44	11.31	10.76	11.32	11.80	14.08	6.00-21.50	12.04	6.02	11.82	12.31
Pint	12.49	9.08	7.74	11.12	8.81	9.61	11.58	4.00-18.50	9.78	6.52	10.11	10.61
Quart	18.47	15.85	15.35	15.21	14.79	15.97	19.40	8.00-31.00	16.61	5.54	15.55	16.76
5# Glass/Plastic	27.00	24.53	33.00	26.33	23.76	24.85	31.08	14.48-41.00	26.40	5.28	26.70	26.88
1# Cream	9.97	8.48	11.25	7.82	9.44	5.80	11.45	5.50-18.00	9.43	9.43	8.92	8.33
1# Cut Comb	12.87	9.15	8.33	10.25	10.57	8.25	15.69	6.00-22.00	11.34	11.34	11.07	10.66
Ross Round	10.28	6.88	8.78	9.50	8.76	7.83	8.70	5.00-12.00	9.02	12.03	8.42	8.74
Wholesale Wax (LI)	7.36	5.09	4.93	5.83	6.23	5.50	5.94	3.00-12.00	6.02	-	6.03	5.85
Wholesale Wax (Dk)	6.41	4.70	4.21	5.07	5.51	3.17	2.25	2.00-10.00	5.01	-	5.32	5.21
Pollination Fee/Col.	98.75	72.50	50.00	82.50	80.00	138.33	119.29	30.00-200.00	93.48	-	87.12	90.71

For *Bee Culture*'s complete article, visit: <http://www.beeeculture.com/regional-honey-price-report-4/>. To see the USDA's National Honey Report, visit: <https://www.ams.usda.gov/mnreports/fvmhoney.pdf>.

## THE LITTLE SWARM TRAP THAT COULD....



*Above, Ron Black at the 2015 Holiday Potluck.*

LCBA member Chaplain Ron Black wrote in with a wonderful story: “Just wanting to give you my personal swarm capture report, I built a large swarm box/trap and placed it 7 feet off the ground on a large fir tree that is within 20 ft. from my front room window so I could watch any bees that visit the box. Over the past couple years, I have noticed lots of bees on our plants and bushes in the front yard. I really did not expect to get a swarm, but we like looking at the bees, so that’s why I placed it in this tree. I am able to sit in my recliner, drink coffee, and watch bees landing on the swarm box.

“On June 4<sup>th</sup>, to my surprise, I caught a large swarm in the box: the first swarm I have caught in two years. That evening I moved the bees to a deep hive box and thought how great it was to catch a swarm in my front yard. I hung the box back up, and 2 days later, I caught another swarm. I continued to reset the swarm box in the same tree near my front room window, and as of yesterday evening, I’ve caught 6 swarms in that box on the same tree. Yesterday’s swarm I was able to film with my camera, as they were swirling in the air and going to the box. Six swarms in 18 days from one box on the same tree has to be pretty rare in such a short time. All the swarms were at least the size of a package of bees or larger, and all had queens. My cousin, Harold Mullins, has helped me each time to capture the bees using his bee vacuum. I felt guilty having him return to my house every other day or so to vacuum the bees, but he is as amazed as I have been. I ran out of deep boxes and had to go to Beeline for more deep boxes, frames covers, etc . I have now used those up, so Harold got to take a swarm home last night.”

“It just goes to show you that having plants that attract bees in your yard can pay off. FYI, I originally set the swarm box up in the fir tree at 8 ft. after the first 3 swarms I got tired of climbing up and down the ladder, so I moved the box down to 5 foot off the ground, and it worked equally well at that height. I used Swarm Commander lure. Last year, I used lemongrass essential oil and a 5 frame nuc box, and I only got one swarm of bees. A bigger box with 2 or more ventilation holes and Swarm Commander seemed to work for me. Looking forward to next year to see how I do in comparison to this year swarm season.

“Besides getting these swarms, the real reward was being able to see the bees swarm on my trap from my front window. The second blessing is, I did not have to leave my front yard to get them. Life is Gooood! Take care, Ron Black and family.”

*Do you have a great bee story? Please send it to [secretary@lcba.community](mailto:secretary@lcba.community) !*

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

### Malt Vinegar-Glazed Chicken – from Bon Appetit (*makes 4 servings*)

#### *Ingredients For the Glaze:*

3/4 cup malt vinegar  
1/4 cup mild-flavored (light) molasses  
2 tablespoons honey  
1 teaspoon fennel seeds  
1/2 teaspoon coriander seeds  
1/4 teaspoon crushed red pepper flakes  
1 dried pasilla or ancho chile, stemmed, seeded  
10 whole black peppercorns  
1 1-inch piece of cinnamon stick  
1/2 bay leaf

#### *Ingredients For the Chicken:*

1/2 cup (packed) light brown sugar  
1/3 cup kosher salt plus more for seasoning  
1/4 cup malt vinegar  
8 sprigs fresh thyme  
1 4-pound chicken, backbone removed, quartered,  
or 4 lb. breasts and whole legs  
Freshly ground black pepper

#### *Directions:*

**For Glaze:** Combine all ingredients in a small heavy saucepan. Bring to a boil, then reduce heat to a simmer, stirring occasionally, until glaze is thickened and reduced to 1/3 cup, 12–15 minutes. Strain into a small bowl. Glaze can be made 3 days ahead. Let cool. Cover and chill. **FOR THE CHICKEN:** Stir sugar, 1/3 cup salt, vinegar, thyme, and 1 cup water in a large pot over medium heat until sugar dissolves. Transfer to a large bowl; add 6 cups of cold water. Add chicken, weighing down with a plate to fully submerge if necessary. Cover; chill for 4 hours or, preferably, overnight.

**To cook:** Preheat oven to 425°. Line a rimmed baking sheet with foil (this makes cleanup a snap). Drain chicken; pat dry (do not rinse). Season chicken lightly with salt and pepper. Heat oil in a large heavy skillet over medium-high heat. Working in two batches, sear chicken until well browned all over, 7–8 minutes per batch. Transfer chicken to prepared sheet. Roast chicken for 15 minutes. Baste with glaze. Continue to roast, basting again after 5 minutes, until an instant-read thermometer inserted into thickest part of thigh registers 165°, about 10 minutes longer. Let rest for 10 minutes before serving.



(*Photograph by Matt Duckor*)

## **RECIPES OF THE MONTH – CONTINUED**

### ***Slow Cooker Honey Barbecue Brisket*** ~ Total Time: 12 Hours; Servings: 6-8

*From Tori Avey's Food Blog: to see Tori's full post with step-by-step photos, visit:*

<http://toriavey.com/toris-kitchen/2013/04/slow-cooker-barbecue-brisket/#UrhsaKlfr7bKiuDV.99Ingredients>;

#### ***Ingredients:***

- 1 brisket, 5 lbs., first cut
- Salt and pepper
- 1 tsp onion powder
- 1/2 tsp garlic powder
- 1/2 tsp smoked paprika (optional)
- 1/2 tsp cumin
- 1/4 – 1/2 tsp cayenne pepper
- 1 1/2 cups honey barbecue sauce
- 1/3 cup brown sugar
- 1/2 tbsp cornstarch



You will also need a slow cooker, 6-7 quart capacity

#### ***Directions:***

Sprinkle brisket with salt and pepper. Mix onion powder, garlic powder, smoked paprika, cumin, and cayenne pepper together in a small bowl. Dry rub both sides of the brisket with the seasoning mixture. Stir together the honey barbecue sauce and brown sugar. Pour half of the sauce into the bottom of your slow cooker. Place the seasoned brisket, fatty side up, into the slow cooker. Don't worry if it's a little big for the cooker; the brisket will shrink as it cooks. Cover the top of the brisket with the remaining sauce. Cover the slow cooker and set heat to low for 9 hours, or until fork tender.

When the brisket is cooked, remove it carefully from the slow cooker and place it on a cutting board. Pour the sauce from the slow cooker into a large bowl and let it cool. Slice off the fat cap from the top of the brisket and discard. Flip the brisket over so the leaner side faces upward. You'll be able to see the direction of the meat grain better on this side. Slice the brisket against the grain, at a slight diagonal, creating thin slices of meat. Skim the fat that has risen to the top of the sauce in the large bowl. It will appear lighter in color than the sauce, like droplets of oil on the surface. Skim as much fat as you can. In a small bowl, stir together cornstarch and 1 tbsp of water till completely smooth. Pour the cornstarch mixture into the bowl of sauce and stir to combine. Pour half of the sauce back into the slow cooker. Layer the slices of brisket meat on top of the sauce. Pour the remaining sauce over the brisket. Turn slow cooker to high for about 1 hour, till the meat and sauce are heated through and the sauce begins to bubble and thicken.

Keep on warm setting till ready to serve. Note: the longer you cook this brisket, the more it will take on the texture of shredded or "chipped" beef. If you'd like for the meat to retain its sliced shape, no need to return the meat to the slow cooker. You can reduce the sauce quickly in a saucepan on the stovetop, then pour it over the slices in a casserole dish before serving. The leftovers make great BBQ beef sandwiches.



## BEES IN THE NEWS

*Thanks to Fran Bach & the good folks at Bee Culture & American Bee Journal for news stories.*

**“Bee Buzzes Could Help Determine How to Save Their Decreasing Population”:** *American Bee Journal*, June 8, 2017



*Bombus balteatus* queen collecting nectar from the alpine clover, *Trifolium parryi*. The buzzes of bees flying from flower to flower tell scientists how much pollination the clover population is getting over time and predict seed production in these alpine wildflowers. Credit: Jennifer Geib, Appalachian State University

Over 85% of flowering plants and 75% of crops around the world risk losing pollination because of population losses in wild and managed bees, scientists have estimated. This makes monitoring bee populations paramount, but it's expensive and difficult to track them. Enter the entomologists at the University of Missouri: they've "developed an inexpensive acoustic listening system using data from small microphones in the field to monitor bees in flight. The study, published in PLOS ONE, shows how farmers could use the technology to monitor pollination and increase food production."

Researchers first "analyzed the characteristic frequencies -- what musicians call the pitch--of bee buzzes in the lab. Then, they placed small microphones attached to data storage devices in the field and collected the acoustic survey data from three locations on Pennsylvania Mountain, Colorado, to estimate bumble bee activity."

From the data, "they developed algorithms that identified and quantified the number of bee buzzes in each location and compared that data to visual surveys the team made in the field. In almost every instance, the acoustic surveys were more sensitive, picking up more buzzing bees."

"Eavesdropping on the acoustic signatures of bee flights tells the story of bee activity and pollination services . . . Farmers may be able to use the exact methods to monitor pollination of their orchards and vegetable crops and head off pollination deficits. Finally, global 'citizen scientists' could get involved, monitoring bees in their backyards." The researchers are working on a "smartphone app that could record buzz activity as well as document the bees photographically." To read more, visit: <https://www.dadant.com/bee-buzzes-help-determine-save-decreasing-population/>.

**“Hot Cities Spell Bad News for Bees”:** *American Bee Journal*, June 26, 2017



*Left, bumblebees, like this one, are among the bee species most vulnerable to increases in temperature; right, carpenter bees, like this one, proved to be best able to function at higher temperatures. Both photos by Elsa Youngsteadt.*

The lower a wild bee species' heat tolerance, the more its population drops as the temperature in “urban heat islands” – read, cities and towns – rises, researchers at North Carolina State University have shown. The entomologists examined “the 15 most common bee species in southeastern cities” using a lab test that shows the “critical thermal maximum (CTmax)” for different bee species. To do this, they put the bees into tubes and gradually drove up the heat – the point where the bees “became incapacitated” marked each species' CTmax. Carpenter bees proved best able to tolerate heat, managing to function at 122 at up to 124°F. Ironically, despite its name, the green sweat bee tied with the bumblebee for the least heat-tolerant wild bees – they could not bear temperatures over 113°F (and readers are probably right there with them).

Researchers pointed out that these CTmax temperatures mark the heat that incapacitates the bees – hot weather at lower temperatures still harms the bees, who “may leave a habitat or reproduce less.” The field tests that followed the lab work showed that “the response of the 15 bee species studied in the lab corresponded to each species' abundance in urban yards. In other words, the lower a species' CTmax, the more its numbers declined with urban warming.” To read more, visit: <https://www.sciencedaily.com/releases/2017/06/170626093458.htm>

***Four new studies on how pesticides affect honey bees and wild pollinators show conflicting results. . . .***

*Bee Culture* reports in “**Exposure To Pesticides In Colonies In The AG Areas Did Not Result In Measurable Impacts On Colony Productivity**” (June 30, 2017) that in a one-year span, bees situated in agricultural areas get more and better nutrition than those in non-agricultural areas. The study, published in the *Journal of Economic Entomology*, discovered that the “landscape's composition significantly affected honey bee colony performance and development. Colony weight and brood production were significantly greater in AG areas compared to the NAG area.”

This may seem like a pretty obvious conclusion, but it raises the question of how pesticides used in agricultural areas affect results. The researchers point out that “although negative effects of pesticide on colony health were not detected, sublethal doses of insecticides and fungicides were identified in trapped pollen.” The study concludes that “exposure to pesticides in colonies of the

AG areas did not result in measurable impacts on colony productivity.” However, the researchers studied only 16 colonies and acknowledged that “other effects not measured in this study,” like long-term effects of sublethal doses of neonicotinoids, may affect these results. (To read more, visit: [http://www.beeeculture.com/catch-buzz-exposure-pesticides-colonies-ag-areas-not-result-measurable-impacts-colony-productivity/?utm\\_source=Catch+The+Buzz&utm\\_campaign=f6c5c03957-Catch\\_The\\_Buzz\\_4\\_29\\_2015&utm\\_medium=email&utm\\_term=0\\_0272f190ab-f6c5c03957-256261065](http://www.beeeculture.com/catch-buzz-exposure-pesticides-colonies-ag-areas-not-result-measurable-impacts-colony-productivity/?utm_source=Catch+The+Buzz&utm_campaign=f6c5c03957-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-f6c5c03957-256261065) .)

However, another new study (reported by *Science Daily*) suggests contrary results: “**Exposure to neonic pesticides results in early death for honeybee workers and queens**” (June 29, 2017). Entomologists at York University found that “[w]orker and queen honeybees exposed to field realistic levels of neonicotinoids die sooner, reducing the health of the entire colony.” In an interesting (and worrisome) twist, though, the “neonicotinoid contaminated pollen collected by the honeybees came not from crops grown from neonicotinoid treated seeds, but plants growing in areas adjacent to those crops. The researchers emphasized that their study was “season-long, field realistic research with typical exposure.”



*A worker honeybee has been fitted with a RFID on its back so researchers can record when it enters and leaves the colony: Photo Credit: York University Professor Amro Zayed*

The York U. entomologists drew data from “honey bee colonies in five apiaries close to corn grown from neonicotinoid-treated seeds and six apiaries that were far from agriculture. These colonies were extensively sampled and tested for pesticides from early May to September. ‘Honeybee colonies near corn were exposed to neonicotinoids for three to four months. That is most of the active bee season in temperate North America,’ said York U PhD student Nadia Tsvetkov.”

If the neonicotinoids didn’t come from the corn or soybean plants – “the two primary crops grown from neonicotinoid treated seeds in Ontario and Quebec” – where did they come from? According to the researchers, “neonicotinoids, which are water soluble, spill over from agricultural fields into the surrounding environment, where they are taken up by other plants that are very attractive to bees.” The study went on to measure how neonicotinoid-contaminated bee bread fed to young bees affected their lifespan by feeding them “progressively smaller amounts of the most commonly used neonicotinoid in Ontario, clothianidin, over a 12-week period. The experiment mimicked what would occur naturally in the field. The worker bees exposed to the treated pollen during the first nine days of life had their lifespans cut short by 23 per cent.

Colonies that were exposed to treated pollen were unable to maintain a healthy laying queen, and had poor hygiene.”

The study also found that “a commonly used fungicide can interact with neonicotinoids to “make neonicotinoids twice as toxic to honeybees.” To read the details, visit: <https://www.sciencedaily.com/releases/2017/06/170629142954.htm>.

The York University study results were echoed in findings by Purdue University entomologists, reported by *Bee Culture* in “**Honeybees Pick Up ‘Astonishing’ Number Of Pesticides Via Non-Crop Plants**” (June 28 2017). They found that “honeybees collect the vast majority of their pollen from plants other than crops, even in areas dominated by corn and soybeans, and that pollen is consistently contaminated with a host of agricultural and urban pesticides throughout the growing season.”



*Purdue researchers found that honeybees collect pollen from a wide range of plants, even in areas dominated by corn and soybeans. Credit: Purdue University/Tom Campbell*

The researchers gathered pollen from three Indiana sites for 16 weeks to find out “which pollen sources honeybees use throughout the season and whether they are contaminated with pesticides. The pollen samples represented up to 30 plant families and contained residues from pesticides spanning nine chemical classes, including neonicotinoids – common corn and soybean seed treatments that are toxic to bees. The highest concentrations of pesticides in bee pollen, however, were pyrethroids, which are typically used to control mosquitoes and other nuisance pests.”

The researchers “collected pollen weekly from May to September from hives placed in a nonagricultural meadow, the border of a cornfield planted with neonicotinoid-treated seeds and the border of a cornfield planted with non-treated seeds. They waited to begin their collection until after growers had planted their crops to avoid the heavily contaminated dust that arises during the planting of neonicotinoid-coated seeds. The samples showed that honeybees collect the overwhelming majority of their pollen from uncultivated plants, particularly the plant family that includes clover and alfalfa. The researchers found 29 pesticides in pollen from the meadow site, 29 pesticides in pollen from the treated cornfield and 31 pesticides in pollen from the untreated cornfield.”

“Of the insecticides, neonicotinoids and pyrethroids were the most common in the pollen samples and pose the highest risks to bees, Krupke said. While both are toxic to bees, they differ in their relative risk levels. Neonicotinoids are more poisonous to bees but are primarily used on agricultural land. Conversely, pyrethroids are typically used where pollinators are likely to be – near homes and gardens with a diversity of flowering plants – potentially exposing bees to higher



levels of chemicals and on a more frequent basis. The study showed distinct spikes of pyrethroids in August and September, months when many homeowners spray these chemicals to knock out mosquitoes, hornets and other nuisance pests. Pollen from all three sites also contained DEET, the active ingredient in most insect repellants.”

The scientists were surprised by the “wide range” of chemicals these bees encountered: “The sheer numbers of pesticides we found in pollen samples were astonishing. Agricultural chemicals are only part of the problem. Homeowners and urban landscapes are big contributors, even when hives are directly adjacent to crop fields. . . . If you care about bees as a homeowner, only use insecticides when you really need to because bees will come into contact with them,” according to lead researcher Krupke.

To read more details, visit: [http://www.beeeculture.com/catch-buzz-honeybees-pick-astonishing-number-pesticides-via-non-crop-plants/?utm\\_source=Catch+The+Buzz&utm\\_campaign=b5068483c3-Catch\\_The\\_Buzz\\_4\\_29\\_2015&utm\\_medium=email&utm\\_term=0\\_0272f190ab-b5068483c3-256261065](http://www.beeeculture.com/catch-buzz-honeybees-pick-astonishing-number-pesticides-via-non-crop-plants/?utm_source=Catch+The+Buzz&utm_campaign=b5068483c3-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-b5068483c3-256261065)

The fourth new study, published in the journal *Science* and reported by *American Bee Journal* in **“First Pan-European Field Study Shows Neonicotinoid Pesticides Harm Honeybees and Wild Bees”** (June 30, 2017), was based in the UK, Germany, and Hungary. Researchers exposed three species of bees, including the buff-tailed bumblebee and the Red Mason Bee, to field-realistic dosages of the neonicotinoids clothianidin and thiamethoxam in seed coatings on winter oilseed rape crops. Their results showed that “exposure to treated crops reduced overwintering success of honeybee colonies . . . [i]n Hungary, colony numbers fell by 24 percent in the following spring. In the UK, honeybee colony survival was generally very low, but lowest where bees fed on clothianidin treated oilseed rape in the previous year. No harmful effects on overwintering honeybees were found in Germany.” However, “[l]ower reproductive success - reflected in queen number (bumblebees) and egg production (red mason bee) - was linked with increasing levels of neonicotinoid residues in the nests of wild bee species across all three countries.”

Researchers think that “the differing impacts on honeybees between countries may be associated with interacting factors including the availability of alternative flowering resources for bees to feed on in the farmed landscape as well as general colony health, with Hungarian and UK honeybees tending to be more diseased. In contrast, the hives in Germany happened to be larger, showed little evidence of disease and had access to a wider range of wild flowers to feed on. Dr Woodcock suggests that this may explain why in this country alone there was no evidence of a negative effect of neonicotinoids on honeybees.” To read more, visit: <http://mailchi.mp/americanbeejournal/abj-extra-april-26-2017-common-pesticide-damages-honey-bees-ability-to-fly-858313?e=e9ff21e0bb>

All four of the studies urge further research, particularly into interactions between pesticides and fungicides. A thoughtful discussion of what form this might take appears in *Bee Culture’s* article, **“This Creates An Urgent Need For New Fertilizers And Pesticides That Don’t Harm Bee Populations – And Offers Major Commercial Opportunities For Labs That Can Create Those Chemicals”** (June 25, 2017). To read it, visit: <http://www.beeeculture.com/catch-buzz-creates-urgent-need-new-fertilizers-pesticides-dont-harm-bee-populations-offers-major-commercial-opportunities-labs-can-create->

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### **“USDA Program Helps Nonprofits Innovate New Certification for Bee-Friendly Farms”: Bee Culture, June 25, 2017**

One of several new bee health initiatives announced during June’s “National Pollinator Week” is a new certification program that would let “agricultural producers . . . let consumers know they are farming in ways that benefit bees. Funded by a grant from the U.S. Department of Agriculture (USDA), the Xerces Society for Invertebrate Conservation partnered with Oregon Tilth to develop and launch the Bee Better Certified program.” The program was run for several months as a pilot with 13 farmers participating; now, Xerces and Oregon Tilth are making it available to farmers nationwide. Participating farmers “focus on integrating flower-rich habitat on farms in order to provide food and nesting sites for native bees, honey bees and other pollinators . . . [and] reduce or eliminate use of pesticides known to cause harm to bees.”

To learn more about Better Bee Certified, visit: [www.beebettercertified.org](http://www.beebettercertified.org). Farmers interested in NRCS conservation practices should contact their local USDA service center. To view the NRCS interactive story about the farmers, visit: <http://arcg.is/2ttJU4R>. To read *Bee Culture*’s coverage, visit: [http://www.beeculture.com/catch-buzz-usda-program-helps-nonprofits-innovate-new-certification-bee-friendly-farms/?utm\\_source=Catch+The+Buzz&utm\\_campaign=c310af9be0-Catch\\_The\\_Buzz\\_4\\_29\\_2015&utm\\_medium=email&utm\\_term=0\\_0272f190ab-c310af9be0-256261065](http://www.beeculture.com/catch-buzz-usda-program-helps-nonprofits-innovate-new-certification-bee-friendly-farms/?utm_source=Catch+The+Buzz&utm_campaign=c310af9be0-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-c310af9be0-256261065)

## **ANNOUNCEMENTS**

***Honey Bee Nutrition Competition:*** Dr. Dewey Caron writes, “This summer, the Honey Bee Health Coalition (HBHC) will launch a competition to find the most innovative ideas to tackle honey bee nutrition challenges. Anyone with an idea for a creative new solution to advance, disrupt, or pioneer the field of honey bee nutrition is invited to apply. Finalists will have the opportunity to pitch their ideas to leaders in the beekeeping industry, and a chance to win prize money to implement their projects. The competition will open for applications in August – stay tuned for more information.”

***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](mailto:secretary@lcba.community) with your contact information, prices, and a photo if possible.

***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 online at [www.wasba.org](http://www.wasba.org): click on "Newsletters."

***That’s all for now ~ take care, & bee happy! ~~ Susanne Weil, LCBA Secretary***  
**[Secretary@lcba.community](mailto:Secretary@lcba.community); 360 880 8130)**