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## **July 2016 LCBA Newsletter**

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- Show Your Honey at the State Fair in Puyallup
- Vita Europe Photography Contest

Questions? Suggestions? Resources you'd like to share, stories you'd like to tell? Please contact LCBA Secretary Susanne Weil: <a href="mailto:susanne.beekeeper@gmail.com">susanne.beekeeper@gmail.com</a> or call 360 880 8130.

#### **UPCOMING EVENTS:**





Above right, Lintott Alexander Park in Chehalis (photo, City of Chehalis Parks & Recreation); right, LCBA members at our 2015 Summer Potluck.

# Saturday, July 9: Mark Your Calendars for LCBA's 8<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 #1; 1101 Riverside Dr, Chehalis

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

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

**Drawing for 2017 Youth Scholarship Program:** Nuc boxes, gift certificates, & fun items will bee available for those who buy \$1 drawing tickets. We'd like to branch out to middle schools next year & fund more young people to get started with bees. If you'd like to help, please consider bringing an item to donate!

### Saturdays, July 23 & 30: Honey Extraction Workshops

When & Where: Honey extraction will be by appointment – LCBA members can sign up at the July 9 potluck, or email <a href="mailto:susanne.beekeeper@gmail.com">susanne.beekeeper@gmail.com</a>. There'll be 3 uncapping/spinning stations & 3 different time slots on each Saturday. Visitors 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.





Above left, Grubby & Marnel Groebner spin honey with host John Blaclaw & Sandy Moore in back; right, Steve & Violet Arnold work an extractor with Steve Grega at our 2015 spinning workshop.

#### **August 11: LCBA Monthly Meeting:**

When: 6 - 8:45 p.m.: Social Time, 6 to 6:30 p.m.; 6:30-7:30, presentation; 7:30, break; 7:45-8:45 business meeting & Beekeeping Q&A.

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

**What:** Lewis County & Honey Bee Health. Dr. Dewey Caron will share results from the Pacific Northwest Survey of Honey Bee Health & BeeInformed Partnership's national study – we'll hear where Lewis County fits in the regional & national picture, plus updates on how we can help our bees to thrive.

# Tuesday, August 16 ~ Sunday, August 21: LCBA at the Southwest Washington Fair!

LCBA will have our exhibit in the Floral Building again – observation hive, honey contests, display items, & our great volunteers! Many members signed up to volunteer at our June 9 meeting – we'll have the sign-up sheets available at our July 9 Potluck. LCBA members who volunteer receive free admissions & parking tickets. See below for criteria & process to submit your honey in the official Fair contest or the People's Choice Tasting Contest – or both!





Above, 2015 Fair volunteers with visitors to LCBA's exhibit & Observation Hive

#### Thursday, September 8: LCBA Monthly Meeting

When: 6-8:45 p.m.: Social Time, 6 to 6:30 p.m.; 6:30-7:30, presentation; 7:30, break; 7:45-8:45 business meeting & Beekeeping Q&A.

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

**Topics: Fall Management Strategies: Ways to Help Prepare Your Bees for Successful** 

Over-Wintering. Speaker: President Kevin Reichert.

Also: Short business meeting & "beekeeping Q&A."

## Notes from LCBA's June 9 Monthly Meeting

LCBA President Kevin Reichert opened the meeting, asking how members who participated in our May workshop on hive inspection had liked the event (a lot, judging by responses) and how swarm calls were going (not so many; more about this under "Beekeeping Q&A," below). Kevin also noted that we have signup sheets for volunteers for our exhibit at the Southwest Washington Fair, August 16-21. We also had free Queenline jars available for members who plan to submit honey in this year's official Fair honey judging contest. Members who missed getting their Queenline jars at this meeting can pick them up at our 8<sup>th</sup> Annual Summer Potluck, which will be 4 to 8 pm at Alexander Lintott Park in Chehalis on Saturday, July 9.





Above left, LCBA members' honey & ribbons at the 2015 Southwest Washington Fair; right, Education Coordinator Peter Glover judging the honey with clerical help from Secretary Susanne Weil

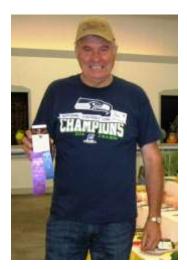
#### Honey Judging Criteria: Speaker, Education Coordinator Peter Glover

Honey may not be the primary reason why each beekeeper keeps bees, but it certainly is a joy to taste one's very own bees' workmanship – and to see it appreciated by others. Honey was our June meeting topic, and Kevin introduced our first speaker, Education Coordinator Peter Glover, who judged honey at last year's Fair and will be doing so again this August.

LCBA & The Southwest Washington Fair's Honey Contest: A History: Peter began with an overview of how the Southwest Washington Fair's honey judging competition has grown. In 2012, the Agricultural judges asked LCBA to encourage members to submit their honey, and three did: Bob Harris was the first blue ribbon winner. In 2013, the Fair asked LCBA to provide a judge knowledgeable about honey, so we invited Roy Schaafsma, a longtime beekeeper and one of LCBA's founding members. 9 jars were entered that year, and 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.) In 2014, Roy asked the club to find someone to take over from him for 2015, so Peter volunteered to help Roy and learn from him. That year, 16 jars were entered; many won blue ribbons, and Dan Maughan was awarded "best in show" by Sandy Grady, the Floral Building Judge, for the clarity & color of his honey.

Then came 2015 – 34 jars of honey were entered! Peter commented that this was a welcome surprise, but also, it took quite a bit of time to judge all those jars of honey. We were supposed to have the judging finished by the time the fair opened at 10 a.m., but it took a while to finish and get those ribbons posted. 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%. So – how is honey scored?





Above left, Peter assisting Roy Schaafsma in 2014; right, Steve Howard won best in show in 2015

How the Honey Judging Works: Working with Roy, Peter learned about using the refractometer to judge moisture content and the Jack's Scale to categorize by color (more details below). Doing some research after the Fair, Peter read the classic book on honey judging recommended by Olympia Master Beekeeper Bob Smith, who spoke about honey judging at LCBA's June 2013 meeting: Honey Shows, Guidelines for Exhibitors Superintendents, and Judges, by Roger A. and Mary Lou Morse. Peter learned about the Eastern Apicultural Society's guidelines, which are the national standard, and adapted them for use in our competition, developing our scorecard:

# HONEY JUDGING SCORE CARD: Southwest Washington Fair, 2016 Entry #: \_\_\_\_\_\_ Point Scoring Items: Judge's Remarks \_\_\_\_/ 20 Maximum Density (by refractometer: over 18.6% moisture 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" & ½" \_\_\_\_\_ w/no visible gap between honey level & cap) / 100 TOTAL

Honey Judging Criteria: Peter walked us through the scorecard. First, he noted that, paradoxical though it may seem, at only 10% of total points, flavor is not a major criterion for judging honey! Tasting is done strictly to test for possible scorching, which can indicate heating or processing that would make the honey NOT raw honey, or fermentation. Why is this? As anyone who's participated in LCBA's "People's Choice Honey Tasting Contest" has learned, honeys have quite diverse flavors, and appreciating them can be very subjective. Some prefer very sweet honey, whereas others favor honey with spicy notes. For example, last summer, people either loved or hated Dan Maughan's special experimental entry, carrot blossom honey. Bob Harris commented that last summer's Oregon state fair winner was a "virtually inedible" Scotch Broom honey! So this is why flavor counts for only 10% of the points: to avoid the individual judge's personal flavor preferences skewing the outcome.



Above, LCBA's refractometer in use at the Fair.

Density (Moisture Content, 20% of total score): Beekeepers know that honey over 18.6% moisture isn't honey – the bees haven't finished dehydrating it, and it can ferment. The refractometer works to measure how much moisture is in the honey. As Honey Bee Suite.com puts it, "Light travels at different speeds through different materials. The refractive index is just a comparison between two numbers: the speed of light through a vacuum and the speed of light through the material you are testing—in this case honey. Light also changes direction after it passes through different materials. If you measure the difference between the angle of incidence (light coming in) and the angle of refraction (light coming out) of a substance, you can use this number to determine the refractive index. This is how a refractometer actually works."

To work the refractometer, it must be cleaned with distilled water between each measurement: this calibrates the mechanism. Once it's calibrated, a drop of honey is placed on the lens, the "door" is closed, and the mechanism gives a read-out of the density. In many cases, Peter noted, we took multiple readings to ensure accuracy. After each reading, the lens must be cleaned with distilled water and dried.

Peter pointed out that the Eastern Apicultural Society values denser honey more highly. For our scorecard, then, honey between 15.5 and 17% moisture scores the most points, 20/20. Peter noted that last year, one honey actually registered below 15.5% moisture: the "bible" (*Honey Shows*) didn't say anything about quantifying this, other than that it wasn't desirable because you can't spread it on your toast as easily! That honey was awarded 15/20.

Color – a category, not a criterion: No honey loses points for its color. Rather, color is used to categorize the wide array of submitted honeys. There are technically many color categories, but our competition just breaks honeys down into dark, amber, and light. Blue, red, and white ribbons are awarded by score within those categories. To establish color, "Jack's Scale" is used: to assign a "Pfund number," which classifies the honey under the categories above. We do not pour honey out of the jars into the small cups in the photo – rather, we the scale is held up to the honey to assess color. Entrants get copies of their score cards for reference, with more precise color gradations noted from the scale.





Above, "Jack's Scale," used to categorize honey by color.

Absence of Crystals – Tested Using the Polariscope [Light Box], 10% of Score: Although crystallized honey can be eaten, that is not the ideal! Even honey in its fluid form can contain crystals that may ultimately develop into fully crystallized honey. Crystals are

contain crystals that may ultimately develop into fully crystallized honey. Crystals are considered an impurity in honey. The polariscope, a.k.a "the light box," helps judges see crystals of solid honey and other imperfections in the bottled honey (this is as distinct from the cloudiness caused by pollen particles). See the photos, below:





Above, left, honey viewed in a polariscope at the 2015 Fair; right, <u>"Honey, through a DIY polariscope,"</u> by John Brandauer (license, <u>CC BY-NC-ND 2.0</u>)

Cleanliness, 40% of points: The lion's share of points in professional honey contests are awarded for the appearance of the honey: no bee body parts, foam, wax bits, dirt, or bubbles, all of which distract from the purity, and beauty, of the raw honey itself. Peter noted, "Some say that bee parts show that the stuff in that bottle really is honey – and they do show that – but bee parts are still technically an impurity, so points off." Fortunately, it's not hard to remove impurities from honey, either by filtering, or simply by allowing the honey to settle. If you filter, be sure not to use a filter higher than 400 microns: 400 microns removes debris, but allows pollen, which is less than 300 microns in diameter, to pass through, giving that cloudiness that characterizes raw, unprocessed honey. If you don't have (or borrow) a filter, Peter noted Sharette Giese's tip: you can use nylon hose to filter your honey! You could also use paint filters: just be sure that they are not below 400 microns.

Avoiding Bits of Wax in Your Honey: The easiest way to handle "cleanliness" in your honey is simply to extract it a couple of weeks prior to the Fair (FYI, we don't filter honey at extraction workshops because it slows down the process so much that we can't get everyone's honey spun in the time available).

Within several days, chunks of wax, foam, and other impurities will rise to the top, since they are lighter than honey. If you have inserted a "gate" into your food grade honey bucket, then you can open and close the gate to fill your Queenline jars of honey easily (see photos, below). Your last few bottles will likely have wax chunks and other impurities in it – you can, if you choose, filter this for your own use, or spread it on a flat surface and put it out in your bee yard – you'll be amazed how fast your bees clean it up!







Above left, honey draining from extractor into a food grade bucket. Note the chunks of wax floating on top – getting some of this into your honey is inevitable, given the remnants of cappings on the frames you spin. Middle, about 5 gallons of honey in a bucket with a gate for ease of bottling – look closely, and you can see the layer of wax & foam that has, over several days, risen above the honey. Right, position your bottle, open the gate, & voila – but watch the level (see discussion of "accuracy of filling," below.

Avoiding Bubbles & Foam in Your Honey: Bubbles will form as your honey flows out of the bucket and into your jar. Don't worry: these should dissipate within several days. Just be sure to bottle your honey several days prior to the Fair, at least! If you find foam on top of the bottle, be sure to skim it off (it will bee edible, so you'll know how to dispose of it. . . .) See photos of bubbles and foam in honey, below:

Accuracy of filling (precise jar filling: head room between 3/8" & ½" w/no visible gap between honey level & cap), 10%: Peter explained that the Eastern Apicultural Society's criteria were intended to judge honey meant for sale. If a pint jar should contain a pound of honey, selling a jar that is as short of the rim as the one in the far right photograph would be considered "shorting the customer." It also looks less professional, and less attractive, than a full jar (see the one at left, and mentally subtract the bubbles!).







Above left, an otherwise fine jar of honey – marred by the presence of bubbles. The bubbles will dissipate, given a few days. Middle, note the foam on top of the honey- this can be skimmed off, the bottle can be topped up, and time given to let bubbles subside. Right, a jar of honey that isn't completely filled.

Container appearance (cleanness, neatness), 10%: Peter noted that the EAS also prioritizes a neat, clean, professional appearance. Queenline jars are the industry standard, so we require them for our contest: this makes for a uniform display, and we supply them free to members. Peter thanked Bob for picking up the jars in person from Ruhl Bees: this is the only safe way to transport the glass jars. Mann Lake will ship them, but they won't guarantee against breakage.

Peter added that actually, the EAS wants competitors to show consistency, so they require each contestant to submit three jars of honey! In LCBA, we felt that was asking a lot of hobbyists, so one jar is all that's required for our contest. The addition of Queenline jars, though, has made our Fair display look pretty spectacular: 34 jars arranged in a spectrum, dark to light honey (see photo at the beginning of this section). Visitors to the Floral Building were visibly impressed!

#### How To Enter Your Honey in the 2016 Southwest Washington Fair Honey Contest:

Below are the categories in the Fair's handbook. Entries need to be submitted at the Floral Building at the Fairgrounds on Monday, August 15, between noon and 7 p.m.; you can also contact Susanne about dropping it off ahead of time if you can't come then. However, the judging, by Fair rules, must take place on the morning of Tuesday, Aug 16, so no late entries, sorry! The Fair has tags to fill out, a formula for your entry number, and a tab system on the tag to hide your name: the tabs are unfolded so that your name is visible after the honey is judged and ribbons awarded. All honey entries are coded G01, Class 1. Then there are 6 categories:

Division G01 – GRAIN – FORAGE – FARM PRODUCTS CLASS 1 – BEE PRODUCTS

LOT:

1. Comb Honey w/Sample

Raw Honey Light w/Sample in 1 lb. Queenline Jar

Raw Honey Amber w/Sample in 1 lb. Queenline Jar

Raw Honey Dark w/sample in 1 lb. Queenline Jar

Wax

Other

Don't worry if you label your honey as amber, but then in the judging, Jack's scale, makes it, say, light. The honey will just be reclassified for that category. The "other" category is for anything bee-related that doesn't neatly fit the previous categories. Past entries have included Kevin and Grant's spectacular wild bee hive / paper wasp nest display; top bar hives; hand-tooled bee gear.

**Q&A:** Cut Comb Honey? Several members were interested in entering cut comb honey. Peter noted that last year, we had a spectacular entry from Jennifer Reiman, who was urged by the Fair staff to enter in the children's section, but wanted to submit her cut comb honey in LCBA's contest. Cut comb honey should be evenly cut, fully capped, and should not be overly runny:





Above, left, Jennifer Reiman with her blue-ribbon cut-comb honey at the 2015 Southwest Washington Fair. Right, closeup: note the perfectly even cappings, neat cutting job, and lack of leakage into the bottom of the clamshell.

*Getting Jars:* Several members were not yet sure if they would have honey to spin. Susanne noted that the Queenline Jars being distributed at this meeting would be available at the potluck and the honey spinning workshops, too.

**Submitting Wax?** Peter acknowledged that he hasn't studied how wax is judged in detail. Basically, one submits a block of wax. Another member asked if beeswax candles could be submitted: they can, and would be judged under the "other" category.

**Don't Like All These Rules? Enter the People's Choice Honey Contest!** The People's Choice – which will run this year on Saturday, August 20 and Sunday, August 21 – is a lot looser: members submit honey for tasting, we put them out on a large table, and visitors vote for their favorite. To enter, please put your honey in a half pint jar (we'll have them at the potluck & spinning workshops) and bring your to the Fair exhibit – ideally on the 15<sup>th</sup>, but at least before the 20<sup>th</sup>.

Kevin thanked Peter for a very informative overview of honey judging.





Above left, visitors to LCBA's exhibit doing the People's Choice Tasting Challenge; right, Kevin Reichert with his winning honey. Kevin has won the People's Choice each year since we started it in 2013!

# Honey Adulteration - Got Real Honey? By Terrie Phillips, Journeyman Candidate, 2016

Terrie graciously wrote up her talk as a guest column for our newsletter.

Honey is a natural, charming, pure, beneficial to health, expensive, organic, raw, intriguing product: all in all, a small luxury. Despite honey's desirability, the U.S. does not produce enough to meet demand and relies on imports to do so.

How much honey do we use in the U.S.? Our honey consumption is at least 500 to 600 million pounds per year, which mirrors the growth of our population. 1.1 pounds of honey per person per year is consumed in the U.S. As of March 2016, according to the USDA (Dept of Ag), the U.S. produces 1.57 million pounds of honey per year. However, the U.S. imports, as of 2015, 388 million pounds of honey per year. Since 4.86 million pounds is consumed each year and

only 3.88 million is produced, clearly we use more honey than we produce. 80% of the honey consumed in US last year was imported, up from 66% in 2014.

*Honey Pricing:* Honey is like other highly valued products: if consumers perceive the pricing as low, then they think the value is lacking. The Current Market Price Collapse is not due to a decline in honey consumption, but, paradoxically, because of higher prices. Group A surges in with low prices and a big quantity of all kinds of honey: Group A then steals the market from Group B, so then, we see a domino effect that eventually leads to the collapse of North American honey-producing beekeepers.

Honey Adulteration: One way to bring a large quantity of honey to market may be through honey adulteration. The Washington State definition of "Adulterated honey" is: "The term "adulterated honey" means any honey to which has been added honeydew, glucose, dextrose, molasses, sugar, sugar syrup, invert sugar, or any other similar product or products, other than the nectar of floral exudations of plants gathered and stored in the comb by honey bees." [1939 c 199 § 22; RRS § 6163-22. Formerly RCW 69.28.010, part; see http://app.leg.wa.gov/rcw/default.aspx?cite=69.28.380 ]

*Great Demand, Low Supply:* There has been a huge increase of global honey exports - but without a corresponding increase in bee colony numbers around the world. This is troubling, as global bee populations are under tremendous stress & decline. U.S. productivity per hive has declined: areas that produced 120 pounds per hive now yield just 50-70 pounds per hive, and even less under adverse weather conditions. The fact that that drop, plus all aspects of bee losses (CCD, pesticides, climate change, mites, etc.) is happening at the same time as global honey exports are increasing, suggests widespread honey adulteration.

Laundering of Chinese Honey in 2001: The Federal Trade Commission imposed stiff import tariffs or taxes to stop Chinese exporters from flooding the market with dirt-cheap, heavily subsidized honey, which was forcing American beekeepers out of business. To avoid dumping tariffs, the Chinese transshipped honey to other countries, switching the color of the shipping drums, documents, and labels to indicate the honey was coming from a tariff-free country of origin like Canada and then shipped to Houston, Texas. It was then sold to U.S. food makers and hotel chains. Some U.S. honey packers began using in-house testing for diluted honey, but some of these sophisticated tests may not have pinpointed the country of origin.



"Illegally Imported Honey" from Department of Homeland Security News Release: on April 28, ICE apprehended 60 tons of honey; on June 29, they nabbed another 60 tons. Both seizures were in Chicago.

The "Pollen Fingerprint" of Honey Origins: Food scientists and honey specialists say that pollen is the only foolproof fingerprint to a honey's source, but laundering operators find a way to get around that with tactics such as ultra-filtration. <u>If</u> the FDA detects this, they do refuse entry of that honey into the U.S. However, as of 2014, the FDA was checking maybe 5% of all foreign honey shipments, so this number may be larger today. It is interesting that there are fewer than five commercial laboratories in the world that can analyze honey for pollen to determine country of origin, and doing it is expensive.

Shockingly, there are also websites open to brokers who will illegally transship honey and other tariff-protected goods from China to the U.S. This harms the American beekeepers as these practices make it an unfair trade market.

*The Era Of Transparency* is the further research protocol for honey, according to *The Hive & Honey Bee*, by Dr. Daberkow and Ron Phillips of the National Honey Board. This push for transparency is happening through several efforts, briefly described below.

- *International Collaborative Efforts* The European Commission (EC), True Source Honey (an industry watchdog), the National Honey Board (federal research & promotion organization under the USDA), FDA guidance of honey labeling, Customs Enforcement (ICE), & more are working together against honey laundering.
- **Scientific Methodologies** are being used, such as Nuclear Magnetic Resonance (NMR) Technology, which is a most promising technique to private for profit labs, independent academic scientists and governmental labs concerned with food safety and food authenticity.
- *Country of Origin* is important so that systems of traceability are being developed so that importers know where honey comes from, what its floral sources are, what climatic conditions it was harvested and stored under, and what blends can be established.
- Adulteration is being detected by authenticating honey's purity and looking at what method of processing was used, such as ultra-filtration or resin technologies. Resin technology is applied to different types of foods to remove contaminants. It can disguise the country of origin. It can not only remove pollen but also antibiotics and residues, remove chemical components that give honey their color (making it even white honey which commands a higher price), and also remove chemical components to help lesser honey have better flavor or aroma.
- *Magnetic Resonance (NMR) technology:* Ripened Honey is what a consumer expects. NMR technology may be an effective tool to distinguish immature and inauthentic honey from natural honey. Chinese beekeepers extract honey at very high moisture levels of 35-40% and reduce moisture in factories. This increases quantity, but decreases qualities and health benefits.

#### GOT Pollen?..... <u>Food Safety News</u> Looks for Pollen:

Two perceptions that producers of real honey have to deal with are (1) that retailers want a long shelf life and (2) consumers want "crystal clear" honey. Another misperception is that when honey crystallizes, it is no longer good.

There are more than 1,100 brands of honey are sold in the U.S. *Food Safety News* purchased more than 60 jars, jugs, and plastic bears in 10 states and the District of Columbia to see how

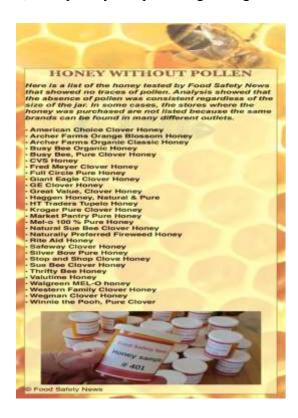
much pollen was in them. The Palynology Research Laboratory found that among the containers of honey:

- 76% of grocery store brands had no pollen
- 100% of drugstores had no pollen
- 77% from the big box stores had zero pollen
- 100% of individual service portion in restaurants were void of pollen

The US Food and Drug Administration says that any honey product that's been ultra-filtered and no longer contains pollen isn't honey.

*Ultra Filtering* is a high-tech procedure through which honey is heated, sometimes watered down, and then forced at high pressure through extremely small filters to remove pollen, which is the only foolproof sign identifying the source of the honey.

The FDA will halt the importation of honey if ultra-filtration is detected. However, only approximately 5% of all foreign honey shipments are checked. (This statement is from sources that are a couple of years old, so hopefully this percentage is higher now.)



Got Real Honey? How do you know your honey is adulterated? First, Read the Label. True Source Honey, an industry watchdog, conducts ethical sourcing audits. In 2013, the "True Source Certified" label started to appear, mostly in large grocery stores and on honey that has "been subjected to a degree of certainty," says Eric Wenger, the chairman of True Source Honey. Honey sold at farmers' markets is, hopefully, more reliable, but the most effective way to avoid adulteration is to buy honey still in the comb, the natural packaging produced by the bees themselves. (See <a href="https://www.truesourcehoney.com">www.truesourcehoney.com</a> for more.)

*Other Tips To Help Find Real Honey:* The FDA issued a draft guidance on April 9, 2014, for the proper labeling of honey and honey products:

- "Organic", "Raw" may help find the real stuff if sold at farmers markets or natural food stores.
- "Pure Honey", "Natural" are labels or words that do not necessarily guarantee that honey isn't diluted.

**Remember that prices are not always a good indicator of quality honey.** Too low a price, maybe diluted but a higher priced honey could be diluted as well.

*Check the ingredients:* does it contain High Fructose Corn Syrup, or are other undesirable ingredients on the label? There are approximately 57 ways to say sugar on the label!

Is it called Honey, or something else, like honey sauce, honey syrup, honey flavored etc.

*Can you see pollen in your honey?* You can see the pollen in undiluted and unfiltered honey.

#### If the honey never crystallizes it is highly probable it's adulterated.

*Is your honey thin/runny?* Does it dissolve easily in liquids? If yes, then it's probably not honey. Honey is thick and doesn't dissolve easily in water (hot or cold), or in your mouth.

**Buying local** from beekeepers or farmers' market where you know your honey producer is recommended. When buying organic brands in grocery stores, there is a 71% chance that the honey wasn't ultra-filtered. 100% of honey at farmers markets had the full anticipated amount of pollen.



**Bee Mindful of Where You Buy:** Buy from reputable companies. Some company's brokers won't buy honey with an absence of pollen. For example, Golden Heritage Foods is one such business; they market 55 million pounds annually. Real honey may be out of the way of normal shopping, or you may have to make a special stop to get it. But it's worth it!

*Global Appreciation for the Honey Bee and her honey:* There is creative marketing by the National Honey Board that works to craft modern ways of using honey. These fun and creative ways to use honey are found on the National Honey Boards website ( <a href="www.honey.com">www.honey.com</a>):

- Brochures on cooking, making beverages, and the artistic use of different flavors of honey are available.
- The value and the role of honey in a healthy diet along with honey's health uses and benefits are shared.
- Honey was voted the "Flavor of the Year" in 2015.
- The education and the importance of bees to agriculture and the health of the world's interdependent ecological systems are being explained (*e.g.*, when the news aired the incident of bumble bees that were killed by pesticide/herbicide spray in trees in Portland, Oregon).
- Scientists from USDA, EPA and the Director of Environmental Health, in the Office of Science & Technology attended the American Honey Producers Association's annual convention.
- There are bee hives at the White House. (What kind of security clearance do the beekeepers need, anyway....hmmm?)

Then there are us beekeepers, who educate anyone we can. We don't like to see adulterated honey anywhere.....because real honey is the only honey. Real and whole honey has all the sweet flavor, agricultural and health benefits, nostalgia, and other rewards honey brings to our world. And let's face it: these are all really good selling points for our honey that we strive to produce!

A Better Future for the Honeybee: The global appreciation of the honey bee, along with the intrinsic charming attributes of the honey that they work so hard to make, has never been more acute, widespread or deeply understood than at present. With the current collaboration of scientists, producers, marketers, beekeepers, both commercial and hobbyists, along with other groups and agencies, hopefully the natural goodness of the honey bee and its products of it's hive will continue for the good of the world's people.

#### Questions & Answers following Terrie's talk on June 9:

Terrie was asked what whipped honey or creamed honey is. Terrie explained that it is made by a different process – you can make it in your kitchen, but you can't sell it. If sold, creamed honey must be made in a kitchen officially inspected by the state. Bob Harris noted that it could be done in your garage, but maybe that is another talk! Peter added that it is akin to making bread, where you need a yeast start.

What can you do? Terrie reiterated that you can look for terms like "organic" or "raw," but don't trust the label! Bob commented that the USDA and FDA do not have an actual definition of organic honey. "Natural" or "pure" or "raw" are terms with no official definition. When you hear the words "organic honey," bee-ware!

Kevin further noted that in trying to cultivate "organic" honey, one problem is that you can't control where bees fly and what they forage on - not like you can control what a pig or a cow eats. Terrie encourages people to look at the label for problem words. Also, she noted that if you hold the honey up to light and see no cloudiness, then it's not raw honey.

If it says "organic" in the supermarket, Terrie pointed out that there is still a 71% chance that it was ultra-filtered. Gottfried commented that at his daughter's house, he saw honey with a label on how it came from the jungles of India, sounding very exotic: Terrie called this "romantic marketing." Gottfried also noted that the May issue of *Bee Culture* listed pounds of production per bee colony per state. Most of the imported honey came from Vietnam, but more likely it originated in China.

Don Schaefer asked about allergies: honey is promoted an anti-allergy - does taking honey for allergies actually work? Terrie said that, yes, it does. She takes a spoonful a day, and now she has very few allergies.

Kevin thanked Terrie for her very informative talk, and we took a break to see . . . .

#### Meeting Break: "Flow Hive" on Display ~ Thank You, Mel Grigorich!

If you are a beekeeper on Facebook, chances are at least a dozen people have posted the "Flow Hive" promotional video on your timeline. Two Australian beekeepers invented this new hive design: the hive's plastic frames are intended to slide open, letting honey "flow" out a tube & into a honey bucket, with just a twist of a lever (see photos, below). Mel Grigorich brought his friend Victoria Parson's Flow Hive for LCBA members to view and answered questions about the hive as members thronged around to see how its parts worked. Mel is a tad skeptical about the design, noting that it is hard to put together, and that the wood swells in our climate. Gottfried wondered if its mechanism that slides open the plastic frames might get gummed up by propolis. Several members are reported to have flow hives or frames, so maybe we can get an update from them after honey season. Meanwhile, thanks, Mel for an interesting demonstration!



Above, LCBA members Dale Richart, Jina Bailey, Rick Battin, & Steve Howard watch as Mel Grigorich demonstrates the components of the fabled Flow Hive. More photos on the next page:

Below, left, a close-up of the frame that slides ajar, allowing honey to "flow" out through a tube; right, Mel inserts the tool that opens the frames.





**Beekeeping Q&A:** President Kevin asked if new beekeepers have added their second hive boxes, and if they followed the "rule of seven" (when bees have built out seven frames in a hive box, they need the next box added so that they do not feel overcrowded and begin making swarm cells). Those present reported that they have. Peggy Hammer has her third medium super on. Kevin noted that some beekeepers he visited had put the second hive box on too soon – in which case the bees are likely to "chimney" up, building only on central frames & ignoring outer frames – or too late, risking a swarm.

How are those packages & nucs doing? Kevin noted that as he has talked to members since our last meeting, he's heard that queens from packages and nucs are doing very well. Steve Howard said he is happy with his. However, most feel that bees are not producing honey as quickly this year as they had hoped: the weather is too erratic. Tim Weible commented that the bees don't know if they're in Canada or California with this weather. Kevin told how one mentee used 6 inch honey supers for brood boxes, and had only just put on a third box. Walt Wilson asked why so many are going to 9 frames in a 10 frame box: Kevin replied that we use 9 frames for in supers for honey production, but that it's best to keep the brood boxes tight, with 10 frames.

Kevin noted that when a virgin queen doesn't work out in a hive, as happened in one of Walt Wilson's hives, it's feasible to combine that colony with another hive: Walt did this, and now has a vigorous colony. Another bought 2 packages from Ruhl's, but the queen was not producing, so he re-queened a 2nd time: then it "took." Gottfried noted that especially after a swarm, you need to allow two weeks not seeing eggs or larvae before panicking.

Swarm & Colony Removals: Kevin noted how he and Gary Kalich had taken bees out of a travel trailer: the bees were in the electrical cord outlet box! Those bees had packed three or four pounds of honey into that space. Gary and Kevin had to remove the comb into a bucket, then had to tear a small wall out to access the bees with Kevin's vacuum. Now these bees are in a box and doing well. Kevin also had a call from a new member who reported a swarm that had moved in under a trailer house. The owner said, "Just cut a hole in the side": the bees were in between floor joists, so Kevin and his team cut a hole just above the foundation, then sucked the bees out into the vacuum box and put them in a box for our member, but, as sometimes happens, the bees did not like the box and vamoosed





Above, a big beautiful swarm hived by Grant Inmon & Phil Wilson on June 26 (photos, Phil Wilson)

**New Beekeepers & mentors:** Steve Howard asked how many new beekeepers were here. He urged that if they are club members, they can ask for a mentor, then "bug [your mentors] - let them help you." Steve told about one new beekeeper who is now taking Olympia Beekeepers' apprentice class. Two weeks ago, this new beekeeper re-queened his hive at a cost of \$35 after not seeing eggs or larvae, but then, it turned out that the old queen actually was in there, laying: the new beekeeper had put boxes on too fast and missed the eggs. Steve urged new beekeepers to take their time and bee careful in inspecting – and get a mentor. He praised LCBA for the mentor program and workshops and urged members to take advantage of these resources.

When to put on a honey super? One member asked whether to put a new super on top of a now full super, or super from below. Kevin said he agrees with Steve's philosophy, putting the empty box on top of brood box without using a queen excluder: then, if the queen needs more need more room to lay, the bees have the room, so less risk of a swarm. (For more details, see the writeup of Steve's talk about honey supering in our June 2016 newsletter.) Tim added that it's important to be sure they do not get honey bound: always be sure they have room.

Kevin agrees with those who don't want to spin honey yet, and would rather let the bees take full advantage of the nectar flow. Also, it's a lot of work to pull and spin the honey, so doing it once makes sense. Gottfried noted that you can seal up frames you remove in one of those big plastic tote boxes, preventing wax moth infestation and contamination; you must store these totes above 60 degrees, which is crystallization temperature. Kevin asked Dan Maughan how his bees are doing: Dan said half his 5 pound package bees are already in supers; others are just getting there. Having pulled comb to help the bees start their new home makes a big difference, Dan noted.

**Extraction workshops:** Kevin noted that the club will have honey extraction workshops the last two Saturdays in July for members only by sign-up. Peggy asked how club decides when to do the extraction workshops: Susanne noted that the extraction workshop used to be in September, but we wanted to help members enter honey in the contest at the Fair, so moved the workshops

to late July / early August. Gottfried also noted that it is good not to wait too long to remove honey supers – this minimizes robbing. When full supers are on hives during the nectar dearth, bees are hunting for food, and robbing can take down a weaker colony. Gottfried added that a good time of day to inspect and remove supers is midday, when "crabby old ladies" out foraging.

**Being with Bees:** Tracy Chilelli said that before keeping bees, she was afraid of them: now, she's not afraid at all when a bee flies past her as she is gardening. In fact, she finds them entertaining to watch. Susanne added that bees' temperaments are good now, by and large, because forage is available: however, when the forage dries up, the bees will become more defensive because more stressed. Cody Warren noted that one great advantage of top bar hives and long Langstroth hives is that when you start working the back, the bees in front don't even know you are there till you get to the brood nest.

#### **June 9 LCBA Business Meeting**

**Treasurer's Report:** Treasurer Rick Battin reported that LCBA's general account has \$5,347.16, and the Youth Scholarship fund has \$1,333.14. Rick noted that he had given Alderson's another nametag order: the new nametags were supposed to be here for this meeting, but were not ready yet. They should be available at our July 9 potluck.

**Southwest Washington Fair:** As noted at the start of the meeting, we had a signup sheet with our first call for volunteers. Susanne noted that members who volunteer get free tickets and parking passes. LCBA mounts an extensive educational display, with our observation hive (a magnet for kids of all ages!), Kevin and Grant's amazing wild honey bee hive comb and paper wasp hanging display, lots of educational displays about honey bees, their challenges, and LCBA events, and free materials from the National Honey Board. Members share equipment to display as well so that people interested in getting started with bees get a feel for gear they will need. Our exhibit gets a lot of foot traffic in the Floral Building, and our volunteers are kept busy answering questions!

**Youth Scholarship Update:** Susanne reported that her mentee, 5<sup>th</sup> grader Sam, has put on his third medium super brood box and is crossing his fingers to be able to get a honey super on his bees this year. She said that even if his bees don't build up to a full honey super, probably they will pull at least a frame or two so Sam can experience his bees' honey this year. He is still very excited to work his bees. Gottfried reported that his mentee Josiah, who was here for the speakers, has brood and food in all 3 mediums, so soon he'll add a honey super.

*Mentorship Update*: Susanne reported for Martin Stenzig. Martin has matched up all members requesting mentees except one. A few new requests came in tonight; Martin will contact them.

*Upcoming Events:* Members were reminded about the workshop on methods for removing honey supers and testing for diseases & parasites on June 25; about the WSU Short Courses in Beekeeping, June 17-19; and about LCBA's 8<sup>th</sup> Annual Summer Potluck, Alexander Lintott Park, Shelter #1, Saturday, July 9, 4 to 8 p.m.

#### LCBA June 25 Supers Removal / Varroa Testing Workshop Highlights





Above left: President Kevin Reichert holds out a frame so that attendees could taste fresh honey — it was greatly enjoyed! Right, host Dan Maughan demonstrates how to spray almond oil extract sparingly onto a fume board. The fume board is placed on top of the honey super; it has a solar panel on top, and on a warm bright day, the odor will drive bees out of the honey super so that the frames of honey can easily be removed and stored for spinning. For more details, visit the club's Facebook page — many photos are posted with a blow-by-blow description of the workshop events.





Above, left, attendees examine frames of capped honey. We discussed how to identify frames that are ready for spinning. Right, Dan steadies the honey super (the fume board, above, worked in about ten minutes), and Kevin demonstrates how to use the leaf blower method, emphasizing not to set the blower too high – it could blow the bees' wings right off! More next page:





Above, left, Rick Battin holds up a jar of bees before putting in alcohol to shake — an effective way to test for Varroa mite infestations. One drawback of this method is that it kills the bees. A sugar shake method can also be used, though a jar with a mesh screen is needed to shake the sugar out away from the bees; the sugar can then be examined for mites. Right, Q&A with refreshments. Many thanks to Bill Barr for donating soda & water!

## **HONEY RECIPES OF THE MONTH ~ National Honey Board**

# #1 Baby Back Ribs with Honey, Chipotle & Mango Glaze

#### Ingredients:

1 cup honey \* 2 full racks, baby back ribs \* 1 can chipotle peppers in adobo sauce 4 ripe mangos, cubed \* 1 teaspoon pepper \* 1 tablespoon salt

#### **Directions:**

- Remove ribs from packaging, rinse and pat dry. Remove membrane from backside of ribs.
- Place in shallow pan, sprinkle salt and pepper evenly and set aside.
- In a small sauce pan, add chipotle, mango and honey.
- Cook over medium heat, stirring constantly until cooked down and thick enough to coat the back of a spoon.
- Using the slow and low method of BBO'ing, set temperature to 225-240 degrees.
- If using coals, let them burn off and move over to one side of the grill.
- Wrap the ribs and 2/3 of the sauce mixture in aluminum foil tightly and place on grill. Close lid.
- After 2 hours, flip the ribs and let cook for another 2 hours.
- Open the aluminum and remove ribs, place them on grill and brush on remaining sauce and let cook another 30 minutes.
- Remove and serve hot.

You can find this recipe at <a href="http://www.honey.com/recipes/detail/13/baby-back-ribs-with-honey-chipotle-mango-glaze">http://www.honey.com/recipes/detail/13/baby-back-ribs-with-honey-chipotle-mango-glaze</a>.

# Recipe #2: Honey Strawberry Lemonade Popsicles Ingredients:

2 cups fresh strawberries, washed and stemmed, 1/2 cup reserved and diced 1/2 cup fresh or prepared lemon juice \* 1/2 cup honey \* 1 cup -water

#### Directions:

- Place all ingredients except the 1/2 cup diced strawberries in a blender and mix on high until the strawberries are completely incorporated, about 1 minute.
- Divide the diced strawberries between the popsicle molds and carefully pour the strawberry lemonade mixture to the top of each mold.
- Insert the popsicle sticks in each mold and freeze until the popsicles are completely frozen.

Tip: Run warm water over the molds for just a moment for easy popsicle removal.

You can find this recipe at: <a href="http://www.honey.com/recipes/detail//strawberry-lemonade-popsicles">http://www.honey.com/recipes/detail//strawberry-lemonade-popsicles</a>. For other honey recipes, visit honey.com & put your meal idea in the search bar. The National Honey Board will almost certainly have something for you!

BEES IN THE NEWS is on vacation this month. We'll catch up in our August newsletter. Meanwhile, if you are on Facebook, visit LCBA's page ~ Bees in the News items are posted almost daily.

#### **ANNOUNCEMENTS**

**Need Queens?** Dave Gaston is selling locally (Littlerock)-reared queens for \$30 apiece – you can contact him at fauxelk@hotmail.com. Gottfried Fritz may have some queens from his California trip – you can contact him at gfritz87@aol.com. You can also order queens from Beeline Apiaries or Ruhl Bees – for their contact info, see our LCBA webpage: http://lewiscountybeekeepers.org/beekeeping supplies.



**Show Your Honey at the State Fair in Puyallup!** Register entries online by 10 pm ON AUGUST 28<sup>th</sup>; Deliver your entries AUGUST 30th 10 am–8 pm or AUGUST 31st 8 am–8 pm. to the Washington State Fair Agriculture Department All winning entries will remain on display in the Pierce County Beekeepers Association booth for the duration of the fair. Questions? Call 253 841 5074 or email thefair.com.

#### 2016 Vita International 5th Annual Honey Bee and Beekeeping Photo Competition

Winners' photographs will appear in the 2017 Vita Calendar and be featured in Vita's monthly newsletters. All winners will receive a copy of the limited edition calendar and one outright winner will also receive a cash prize plus beekeeping products. The competition will be judged by an international panel of beekeeping specialists and suppliers. All suitable entries will be added to the Vita Gallery, a free online resource of hundreds of honey bee-related photos now used by beekeeping lecturers and associations across the globe.

Entrants may submit up to four photos (preferably each 1-2 MB in size) by emailing them to gallery@vita-europe.com. Photos can be on any relevant topic relating to honey bees and beekeeping. Please ensure that photos are of high enough resolution for printing.

The outright winner of the competition will receive a €50 cash prize, plus Vita anti-Varroa products for 10 colonies. Runners-up will receive a special package of Vita products. There is also a special prize for the winner of the under-16s category.

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That's all for now ~ take care, & bee happy! ~~ Susanne Weil, LCBA Secretary (Susanne.beekeeper@gmail.com; 360 880 8130)