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November 2017 LCBA Newsletter

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

Thursday, November 9: LCBA Monthly Meeting
Dan Maughan: Commercial Pollination – Bringing Bees to Almonds, Apples, & Cherries
Social Time 6 – 6:30 p.m.; Talk & Q&A, 6:30 to 7:30; Break & Business Meeting, 7:30 to 8:45
Centralia College, Washington Hall 103, 701 W. Walnut, Centralia WA 98531

Are you interested in learning what's involved in commercial pollination? Come hear Dan's talk about his journey to add pollination & honey sales as a sideline to his family farm business. Also: short business meeting with information about LCBA's upcoming board of directors' elections and proposed bylaws revisions; vote on loaner extraction equipment; club apiary update.

Saturday, November 11: LCBA’s Free “Getting Started in Beekeeping” Orientation ~ Please Tell Friends Who Want to Keep Bees!

When: 10 a.m. to Noon
Where: Centralia College, Washington Hall 103, 701 W. Walnut, Centralia WA 98531
We’ll Cover: Benefits of Beekeeping; “Bee Biology 101”; Equipment You’ll Need; How To Set Up Your Apiary; Your First Year of Beekeeping—What You Do; Getting & Managing Bees; Harvesting Honey; Parasites & Diseases; Over-Wintering; & More!
Questions? Call 360 880 8130; email secretary@lcba.community
Friday, November 17:

2018 Youth in Beekeeping Scholarship Application Deadline

Do you know young people from families new to beekeeping who'd like to get started with bees? Please tell them about LCBA's Youth Scholarship Program! LCBA hopes to sponsor three young beekeepers in 2018. We're seeking students between 6th and 10th grades in 2017-18 − home-schooled students are welcome to apply, too.

Students who win a scholarship are loaned bees and all necessary gear; if they complete the scholarship commitment to attend our beginning beekeeping class, workshops, some meetings, and to volunteer at LCBA's exhibits at the Spring Youth Fair and Southwest Washington Fairs, then they keep their bees and gear. Each Youth Scholar is matched with an experienced beekeeping mentor to guide them through their first year as beekeepers.

More info & the application materials are on our website: http://lewiscountybeekeepers.org/…/want_to_apply_2018_lcba_…. Students with questions are welcome to contact Susanne Weil, secretary@lcba.community or call 360 880 8130.

LCBA’s 9th Annual Holiday Potluck

Saturday, December 9 (Time TBA, but probably to start at 3 or 4 pm – we’ll settle this at our November 9th meeting. We have Borst Kitchen #1 all day!)

Where: Fort Borst Park, Kitchen #1, Centralia, WA.

What: Fun, fellowship, & a drawing to support our 2018 Youth in Beekeeping Scholarship Program; also, our 2018 elections. More details will be emailed later in November!
January 13, 20, 27, February 3, 10, 17, 2018, 9 a.m. to noon:

LCBA's Beginning Beekeeping Class: “Your First Year of Beekeeping”

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

LCBA’s class is offered through Centralia College's Continuing Education Program – please tell friends interested in starting to keep bees!

For beginners: learn to keep bees successfully in southwest Washington’s unique conditions. Topics: basic bee biology/behavior, equipment & apiary set-up, seasonal management, identifying & managing parasites & diseases, honey harvesting, over-wintering, & more.

Students completing the course earn LCBA’s diploma.

Course Materials: Lewis County Beekeepers’ Association’s manual lays out basics for beginners; LCBA’s PowerPoints & demonstration materials supplement manual with visuals. In-class Q&A welcome; children welcome, too.

Course Instructors: LCBA board members with many years of beekeeping experience.

Post-Course Support: LCBA’s free Mentor Workshops give hands-on guidance in working bees. Students who join LCBA are eligible for discounts on spring package / nuc bee orders & free consultations with an individual “bee mentor.”

How to Register: Registration costs $40 and goes through Centralia College by phone, mail, or in person - sorry, no online registration. Registration starts December 6, 2017. Here's how it works. First, get a registration form at: http://www.centralia.edu/academics/cont-ed The Course No is C118A; Course Code 6621.

Register & Pay by Phone w/Credit Card: Call (360) 623-8940, ext. 427 or 623, or Register In Person: Enrollment Services, TransAlta Commons, 2nd Floor, 600 W. Centralia College Blvd.

Questions? Email secretary@lcba.community or call 360 880 8130.

SMALL FARM WORKSHOP SERIES –L.C. EXTENSION

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

The WSU Lewis County Extension hosts at the Lewis County Courthouse, 351 NW North Street, Chehalis, on Thursday evenings 6pm – 7:30pm. $5 per family at the door (Cash and Check only). Pre-registration is requested to assure handouts, Call 360-740-1212 Walk-ins Welcome too.
NOTES FROM LCBA’S OCTOBER 12 MONTHLY MEETING

Dr. Dewey Caron: Lewis County & Pacific Northwest Bee Losses, 2016-17

Above, Dr. Dewey Caron inspecting a colony.

LCBA Vice President Bob Harris welcomed Dr. Dewey Caron, Emeritus Professor of Entomology at the University of Delaware and Affiliate Faculty at Oregon State University. Dewey came to share information about how bee losses in our region may relate to various management and overwintering practices. As a cautionary note, Dewey pointed out that only 13 LCBA members responded to last year’s survey, so our data are probably not as representative as the previous year’s; however, this year’s results can be indicative, particularly when compared with bee losses in Washington State (48 respondents total including LCBA), and the more robust Oregon database, which had 282 respondents. For winter 2016-17, Washington respondents reported a 63% loss rate; Oregon respondents reported 48% losses, and Lewis County’s 13 respondents averaged a 57% loss rate, as did Clark/Cowlitz Counties’ 15 respondents. Olympia Beekeepers conducted a separate survey in which 54 respondents reported 67.5% losses. Several respondents who had 50-plus colonies were not represented in this data set, which is intended as a backyarder survey snapshot for the year. Those who’d like to read the complete PNW Survey results can find it here:


Bee-Maggedon in the News: Dewey noted that “headline writers have had quite a time with us” beekeepers: we read of epidemic, unprecedented, crisis level losses, “Bee-Mageddon”; a TIME Magazine cover from several years back read, “Bee-Pocalypse Now.” But is this really an accurate reflection of what’s happening in our world of bees? Granted, losing over half our colonies over the winter period – and the numbers above don’t represent summer losses – sounds pretty bad. However, Dewey pointed out that back in the 19th century, Lorenzo Langstroth wrote about 45% colony losses in New England prior to his famous hive box innovation. Langstroth urged beekeepers to “take your losses in the fall”: if you know that a colony is unlikely to survive, then do something, like combine it with another colony, feed it, etc. Langstroth noted
that Italian honey bees, then and now favored by many beekeepers, tend to “build big” in summer: that means that they need a lot of stores to survive winter.

**Honey Bee Colony Numbers Are Actually on the Rise:** Contrary to doom-saying headlines about bee losses, overall honey bee numbers worldwide are actually rising, including in the U.S. and Canada, as the graphs below show:

![Graph showing North America: Number of Managed Beehives](image)

**How Can Colony Numbers Be Rising When Loss Rates Are So High?** Overall, numbers are rising because commercial beekeepers continue to breed queens and split colonies to furnish resupplies. Those who continue keeping bees will replace losses, either with purchased bees, captured swarms, or by splitting strong colonies. With this in mind, panic doesn’t seem appropriate; rather, a reasoned approach to methods that work seems called for.
**Impact of the type of hive housing on losses:** For Lewis County, 40% of bees kept in an 8-frame Langstroth died (compared with 46% statewide); in 10-frame Langstroths, 55% were lost (compared with 50% in WA). Only 2 nucs were represented in Lewis County data, and both died; however, statewide, nuc losses were 88%. The two top bar hives reported by LCBA members both died, as compared with a 47% top bar loss statewide (see graph below).

![Graph showing hive housing losses](image)

**Losses by hive origination:** in general, previously over-wintered and swarm colonies did better than nucs, splits, ferals (carve-outs), and package bees, not just for Lewis County, but Washington overall (see graph below). Gillian Davis asked whether colony age matters: Dewey does not have data on colony age, just on hive origination.

![Graph showing percent winter loss by hive origination](image)

**Commercial v. Hobbyist Losses:** Over a three-year comparison of losses reported by Washington commercial and backyard beekeepers, backyarders have lost a lot more: 64% compared with the commercials’ 26%. This suggests although the loss levels we are seeing are not an anomaly for backyard beekeepers, they do not reflect what is happening to the majority of bee colonies, since the majority of colonies are held by commercial operators. Gottfried Fritz asked whether some of the difference might relate to commercial beekeepers’ moving their
colonies out of state. Dewey said that was possible, since bees taken to California almonds have warm weather and plenty of food: they are not dying in Washington’s February and March cold and rain. Also, Dewey noted that commercial beekeepers do a lot more intervention with their bees, since they cannot afford big losses. Having said this, some commercial beekeepers do experience losses, but they estimate their losses not based on counting colonies one by one, but rather on “can I or can’t I meet my contracts - how far am I short?”

Dan Maughan noted that he tries to give his bees pollen patties in January to start to strengthen them. Also, Dan asked whether new beekeepers who give up are measured in the data: Dewey said that they are not. He wonders whether, because the survey is called a loss survey, people may respond because they have losses to report, rather than survivors! Another member asked whether the high number of rainy days in 2017 made a difference: Dewey said that it certainly did: in the southeast and east, their spring season came 28 days earlier. When he is in Bolivia over the winter months, he sees beekeepers not worrying about the dry season: if Bolivian bees abscond, the beekeepers just put out boxes, since they can count on other bees to move in.

Why do beekeepers think their colonies collapse? See the graph above. Bees weak in fall, poor wintering conditions, and varroa mites led the list of reasons reported by beekeepers. Also, in a related slide, Dewey reported that half of respondents from our county saw losses of 25 to 50% as acceptable. However, commercial beekeepers won’t accept losses over 20%: it’s too expensive to replace large colony numbers, and though they can do splits, they need colonies early in the season for pollination. Since replacing a couple of colonies isn’t a terrible burden for hobbyists, that may explain the difference in what’s seen as a viable loss rate.

Dewey said that since we try to teach responsible beekeeping, part of that is trying to keep colonies going, but to do that, we run into a real problem: we rely on queens from elsewhere that are not used to this climate. They may be good bees, but they don’t know our conditions, may not adapt, and we get onto a “replacement treadmill.” It can be a little easier the next year after a dead out because the beekeeper can put a new package or swarm on drawn comb.
“10 Things To Do Now To Help Bees Over-Winter” – focus on mite control: Referring to LCBA President Kevin Reichert’s September talk on “10 things to do now to help our bees overwinter,” Dewey endorsed Kevin’s #1: knowing the mite numbers and controlling them if the risk is high. Dewey referenced the HoneyBee Health Coalition’s “Tools for Varroa Management,” which can be accessed free online at: https://honeybeehealthcoalition.org/wp-content/uploads/2015/08/HBHC-Guide_Varroa-Interactive-PDF.pdf. HBHC also has a series of 12 videos: so if, for example, you never used oxalic acid, you can check out their video free. Dewey cited Dr. Danny Najera’s amazing slide from Danny’s August LCBA talk: for colonies with over 7 mites per 100 bees, losses were 70.6%; under 7 mites per 100 bees, only 4% were lost. HBHC also notes that if 10% of bees have mites, the odds are against the colony surviving.

Mite Sampling Set To Music: Another of HBHC’s videos demonstrates how to take mite samples. Dewey noted the importance of shaking the sample if you use sugar, as many beekeepers prefer to the alcohol wash, since the sugar shake doesn’t kill the bees. Dewey takes about a half-cup of bees and shakes them for a minute – he commented that “a minute with bees in a jar is a long time,” so he recommends humming “take me out to the ball game” or the “Oscar Mayer Wiener” song – by the time that’s done, the mites are separated from the bees. You then release the sugary bees (they’ll groom each other), shake the sugar that’s left into white dish and then count the mites. Dan asked whether, when sampling, the goal is to get a uniform sample, or foragers, or nurse bees? Dewey said nurse bees, as they will be closest to mites hatching out of brood. Dewey showed a sample with 2% mites [6 mites per 300 bees]: this is where the question of stewardship comes in. Relative to mites, that number is going to look good to a backyard beekeeper, but a commercial beekeeper would treat.

Should We Just Assume Mites & Treat? – a member asked. Dewey answered that it is better to know something – and act in response to that. But then, Dewey noted, if you have three colonies and two have low counts, but one has high numbers, 27% – what do you do - treat the colony with the serious infestation, or treat all three? Bob Harris noted Danny Najera’s point that mites pass from forager to forager, and that neighbors who don’t treat their bees can infect yours. Dewey agreed, noting further that when bees are sick, they leave home, and mites jump ship. A
good plan is to treat all of them; at least treat the one with the heavy infestation, and then re-monitor in a couple of weeks.

“If you treat, how do you know if it worked?” You have to do post-treatment sampling. One way is to check the mite drop on a sticky slider board: leave it in for a day, and when you remove it, if you see visible mites, you are seeing too many. It is only a one day snapshot.

Chemical v.s. Non-Chemical Mite Controls: One of Dewey’s slides showed the losses for various non-chemical mite controls: Lewis County numbers were too small for statistical significance, but for Washington State, the loss rate for alternative and chemical methods was the same, 55%. Peggy Hammer asked whether, given the numbers, we could rely on these data. Dewey said that no, that really would be “fake news,” but he compared the data with the much larger Oregon sample: their average losses were 48%, and those who had done some kind of treatment had lower loss rates: those who did not treat at all had 61% loss rates.

Oxalic acid, now legal, is many beekeepers’ choice for Varroa treatment, and Dewey noted various deliver devices. The OxyVap is a $150 machine that could set a colony on fire: now it has been improved, with an improved price of $450; its advantage is that it lets you set the oxalic acid in a ceramic container. There are many devices on the market now. Dewey believes that the vapor method is better than the dribble method. Linda Bartlett asked whether it’s best to close up the hive entrances and other openings: Dewey said that it is best to close the entrances to the extent possible. He recommends going to the back of the hive and vaporizing from beneath a screened bottom board.

Above, the spendy “OxyVap”

How Many Times Should One Treat Using Oxalic Acid? Steve Howard recalled that last year, Dewey had cautioned that treating three times, as many device sellers recommend, could harm the queen; on the other hand, the Oregon data seems to support treating three times. Dewey answered that he thinks that treating three times, one week apart, when the bees are rearing brood, can harm the bees. The machine that he uses gives one treatment a year when there is no brood, or very little, as in November. Oxalic acid burns mites, and it can burn bees, too. If you treat one time, the harm to the bees is minimal, and if you treat when no brood is present, then the mites are all phoretic. Dewey suggested that those pushing three treatments are manufacturers: even Randy Oliver has moved away from doing three treatments and now is looking at putting an oxalic acid infusion on cardboard strips to put into hives. Another question concerned fogging v vaporization: Dewey says these may be same thing, just at different temperatures, but we don’t have the data yet, so we don’t know.
**Nosema Treatment:** From here, Dewey looked at information relating to the rest of Kevin’s 10 steps for fall management. For #2, treating for Nosema, Dewey noted that data don’t show that treatment works. This is more a spring issue, after bees have overwintered, as Kevin pointed out.

We Want Fat Bees in Fall!

**Checking food supplies, feeding if light, and making candy boards, #3 - 5:** Dewey noted that “fat bees” have a lot of vitellogenin, a key protein, in their bodies. Fat colonies have lots of food supplies. But how do we achieve this? How to feed, what works best? Those who fed syrup had losses no different from the overall loss rate. Those who reported feeding hard candy had a 40% loss rate, better than 55%. Dewey noted that dry feed is really an emergency food that may help if given in January or February, when supplies are low and bees will be gearing up for increase. Re: Dan’s winter patties, Dewey warned that if the patties harden, the bees may not be able to eat it. Dan noted that he puts vinegar in the patties, which has the effect of softening them.

**#6, Protect bees from rain:** Dewey observed that the rain shelter was the one moisture control method that put beekeepers below the Washington average loss rate; surprisingly the quilt box did not seem to affect loss rates in these data, again bearing in mind that the numbers are small. Dewey noted that it is easy to check the moisture absorption with shavings – if the top is wet but you put your hand down and find shavings dry above the hardware cloth, then the box is working. When changing out supplies, Dewey suggests putting burlap in the washer and putting it back on warm and fluffy from the dryer.

**Other Moisture and Temperature Management Methods:** Dewey noted that recommendations #s 8, 9, 10 are all good ideas. In his apiary, Dewey leans colonies slightly forward and gives them a wind break: if you have no natural wind break, provide something. Dewey believes that providing an upper exit for moisture venting will help. It’s important to weight down hive tops so the wind can’t whip them off. Finally, it’s important to keep colonies off the ground, away from dew, ground water, and snow.

Dewey concluded this segment by saying, “so my measure of success is…. ‘Do you still have your bees in spring?’”
Finally, Dewey noted several hot links in the October Newsletter to articles raising questions about whether treatment-free beekeepers are “the problem,” or whether newbees are “the problem,” or whether local selection is the best. Bob asked what Dewey thinks: Dewey answered that he does believe that having colonies that are mite bombs is a problem for others in area, and we do have means to treat them.

Bob asked which is more detrimental to bees – being managed or being free? Dewey said we are in an equation – bees with their social life and we beekeepers as colony managers … we have responsibilities. If urban beekeepers don’t manage swarms in a city, they scare neighbors and spawn regulations. Now the hot topic is mites and pesticides. Many plants are raised with neonicotinoids, and bees will find those plants. In most cases we don’t know whether neonic is in a plant, and we don’t know how harmful they are: if they are harming the whole colony or just foragers that come in contact with neonic. The bee colony does replace those foragers and the social system will produce enough offspring to offset the losses. Dewey drew an analogy with viruses – some humans will die from flu; some bees will die from deformed wing virus. But the bees that hatch out with DWV come out sick and infect more bees; in contrast, with acute bee paralysis virus (ABPV), bees die within a week, but dead bodies don’t pass on the virus. DWV acts more slowly and leads to severe viral outbreaks. Dewey said we can fight the mite, but it may be that bees are struggling because they are fighting both the neonic’s effects and the viruses. Then, add the winter, poor stores, maybe nosem, all are stressors … and we get an average loss of 57% of colonies by 13 individuals in Lewis County.

Dewey concluded by pointing out that beekeeping never has been easy: though now it has a certain allure because we want to help avert the bee crisis. There is no one best way to keep bees – or we’d all be doing it. Finally, Dewey noted that he now has four years of data: next year will be his last year doing the survey, and he encourages more to participate. Bob thanked Dewey for another very informative talk.
LCBA’S YOUTH SCHOLARSHIP PROGRAM FEATURED IN THE CENTRALIA CHRONICLE!

“Veteran Beekeepers Pair Up With Rookies to Teach Tricks of the Trade: Youth Beekeeping Scholarship Program Works to Create New Hive Stewards,” by Jordan Nailon
jnailon@chronline.com  Oct 17, 2017. To read the article, visit:

In Memory: LCBA Member Pat Sturgill
Sad news: our fellow LCBA member Pat Sturgill passed away in October, it is thought from a heart attack. Pat joined LCBA last year and was a proactive and friendly presence in our club. He volunteered for our potluck committees, attended our workshops and meetings, and encouraged our youth scholarship students. As a beekeeper, Pat was always glad to share what he knew, and always interested to hear new approaches. He will be missed. Below, left, Pat (upper right in photo) watches Youth Scholar Sam examine a hive at our 2016 Fall Management Workshop; right, Pat is pictured working on one of his DIY woodenwork projects. As his friends in the Olympia Bee Association said, “Now, he can play with bees without a suit.”
RECIPE OF THE MONTH ~ Starring HONEY

The National Honey Board has posted Fall Comfort Food Recipes that include our favorite ingredient!

Visit the link below to see recipes for these great side dishes & desserts – some might be nice for Thanksgiving Day...

- Pear, Blue Cheese and Honey Tartine
- Sage-Honey Roasted Acorn Squash
  - Northwest Bruschetta
- Honey Pear Upside Down Cake;
- Pomegranate Cider Bourbon Splash
  - Butternut Squash Soup
- Prosciutto Wrapped Pork Tenderloin with Honey Poached Pears & Gorgonzola
- Butternut Squash and Pomegranate Crostini with Whipped Feta and Honey
- Honey Apple Turnovers

Here is the link: https://honey.com/blog/fall-produce-shines-with-honey

Here’s A Nice Thanksgiving Side Dish: Honey Candied Yams

From the National Honey Board

Ingredients (serves 8):

6 Yams, sliced and cooked
2 Tbsp cornstarch
1 1/2 cups honey
1/8 tsp salt
1 1/2 cups water

Directions:

Combine all ingredients in medium saucepan and cook on medium-low heat until clear. Pour over cooked sweet potatoes and bake at 400°F until brown.
**Prosciutto Wrapped Pork Tenderloin with Honey Poached Pears & Gorgonzola (serves 6)**

**INGREDIENTS:**

1 firm pear  
½ cup water  
¼ cup dry white wine  
4 tablespoons honey divided  
2 1 lb. pork tenderloins  
6 ounces crumbled gorgonzola  
¼ cup chopped walnuts  
¼ cup Italian seasoned bread crumbs  
6 ounces prosciutto

**DIRECTIONS:**

Peel pear and slice into six wedges; remove core.

In medium saucepan, bring water, wine and 3 tablespoons honey to a boil; reduce to simmer and add pears. Cover and cook 15 minutes or until pears are soft.

Using a slotted spoon, transfer pears to a cutting board. Let cool; cut into medium dice.

Preheat oven to 350°.

Slice a pork tenderloin lengthwise three-fourths of the way through. Open like a book; cover with plastic wrap and flatten with a mallet to 1/2-in. thickness. Remove plastic and sprinkle pork with pepper.

Place five 10-in. pieces of kitchen twine side-by-side on a foil-lined baking sheet.

Place prosciutto, slightly overlapping slices crosswise, on top of twine.

Place pork on top and spread with half of the pears, Gorgonzola, walnuts and bread crumbs.

Roll pork into a cylinder, tying to seal the filling inside.

Repeat with remaining tenderloin.

Roast pork 15 minutes.

Spread with remaining honey and continue to roast until a thermometer registers 140°-145°, 15-20 minutes longer.

Remove from oven and transfer to a cutting board; let stand 10-15 minutes. To serve, cut into 1/2-in. slices.
**Bananas Foster's Bake: An Easy Version from the National Honey Board**

**INGREDIENTS (serves 6 to 8):**

- 1 package English Muffins split and toasted
- 4-5 bananas peeled and sliced 1/2 in. thick
- 1 cup toasted pecans chopped
- 1 stick salted butter melted
- 1/2 cup honey
- 1/4 cup maple syrup
- 1/2 cup cream
- 2 tablespoons dark rum or 1/2 teaspoon rum flavoring
- 2 teaspoons vanilla
- 1/8 teaspoon nutmeg

**DIRECTIONS:**

Preheat oven to 350°

Place the English Muffins cut side up into a 11x13 casserole dish.

Whisk together the remaining ingredients except the bananas and pecans.

Pour half of this mixture over the muffins and bake for 10 minutes.

Spread banana slices and pecans evenly over the muffins and drizzle the remaining syrup over the bananas.

Bake an additional 10 minutes or until the topping is bubbly and the bananas are softened.

Serving suggestion: Serve with sweetened whipped cream.

*Looking for a honey recipe? Visit Honey.com, the National Honey Board’s website, and put any meal key word into the search box. They have a remarkable database of recipe options!*
BEES IN THE NEWS

"More Than 75 Percent Decrease in Total Flying Insect Biomass Over 27 Years": American Bee Journal, 10/18/17. The full article is freely available in PLOS ONE: http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0185809

To read, visit: http://mailchi.mp/americanbeejournal/october-18-2017-more-than-75-percent-decrease-in-total-flying-insect-biomass-over-27-years?e=e9ff21e0bb

Urban Beekeeping Is on the Rise - some great tips in this article out of Toronto: "Bees In The City: Designing Green Roofs Is One Way To Help Pollinators Get From Here To There And Not Run Out Of Food": Bee Culture's Catch the Buzz, 10/26/17: http://www.beeculture.com/catch-buzz-bees-city-designing-green-roofs-one-way-help-pollinators-get-not-run-food/?utm_source=Catch+The+Buzz&utm_campaign=ac3b5eb446-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-ac3b5eb446-256261065

Sweet Success Story of a Young Welsh Backyard Beekeeper Who Built a Thriving Bee & Honey Business: "I Investigated The Honey Market And Thought It Could Do With A Different Approach": Bee Culture's Catch the Buzz, 2017: http://www.beeculture.com/catch-buzz-investigated-honey-market-thought-different-approach/?utm_source=Catch+The+Buzz&utm_campaign=0df53a3039-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-0df53a3039-256261065

"China Collects Honey From Over 10 Million Bee Boxes While India Has Only 1.2 Million Bee Boxes But Is Aiming For 10 Million": Bee Culture's Catch the Buzz, 10/24/17:

Can mechanical drones succeed as artificial pollinators? Read on . . . CATCH THE BUZZ – Next-Generation Drones Inspired by Nature" - Bee Culture's Catch the Buzz, 10/25/17:
http://www.beeculture.com/catch-buzz-next-generation-drones-inspired-nature/?utm_source=Catch+The+Buzz&utm_campaign=a29eb1dce1-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-a29eb1dce1-256261065

We all know the headline - but check the ideas for planting for bees inside this article . . .

"Pollinators Face Challenges From Environmental Contaminants, Disease And Parasites And Significant Loss Of Habitat," Bee Culture's Catch the Buzz, 10/27/17:
http://www.beeculture.com/catch-buzz-pollinators-face-challenges-environmental-contaminants-disease-parasites-significant-loss-habitat/?utm_source=Catch+The+Buzz&utm_campaign=6c4e1b1e91-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-6c4e1b1e91-256261065


**ANNOUNCEMENTS**

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

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

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

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

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