

Visit LCBA Online: <u>www.lewiscountybeekeepers.org</u>

October 2015 LCBA Newsletter

In This Edition:

- Upcoming Events (2 -4)
 - LCBA October 14 Monthly Meeting: Pheromones & Venom What Do Beekeepers Need To Know? Speaker – Dr. Dewey Caron
 - Also: Update on Board Election for 2016 & Possible Shift to Thursday Night Meetings
 - Mark Your Calendars LCBA' November Meeting Will Be Nov 4th
- Notes from LCBA's September 9 Monthly Meeting: Fall Management (4 14)
 - September 9 Business Meeting Notes (14 15)
- 2016 LCBA Board Elections / Possible Move of Monthly Meetings to 2nd Thursdays in 2016 (14)
- Highlights from LCBA's Sept 12 Fall Management Issues Workshop (15)
- Honey Voted "Flavor of the Year" (15 16)
- Fall Honey Feast: 5 New Recipes from the National Honey Board (17 19)
- New Winnie-the-Pooh Story Helps Children Help Bees (20)
- Bees in the News (20 23)
 - Bee Informed Partnership 2014-15 Management Survey Results Available
 - "Wildflowers Help Control Crop Pests" By Attracting Insect Predators
 - Ground Level Ozone Hinders Bees' Foraging Capacity
 - Neonicotinoid Sulfoxafor's Approval Revoked By 9th Circuit Court
 - "Organic" Pesticides Also Kill Bees
 - o Africanized Bees Still Moving Northward Through California
- Announcements (23)

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

UPCOMING EVENTS:

Wednesday, October 14: LCBA Monthly Meeting

Topics: Honey Bee Pheromones & Venom; Speaker, Dr. Dewey Caron

When: 6 – 8:45 p.m.: Social Time 6 to 6:30 p.m.

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

What: Learn about the chemicals bees use to communicate: alarm pheromones, brood pheromones, & more. Also, why are some more susceptible to honey bee & other insects' venom than others? Dr. Dewey Caron will explain how beekeepers can use this knowledge.

Short Business meeting follows with news about LCBA's elections for 2016 board officers.



Above left, <u>"Honeybee exposing her Nasonov gland to release an orienting pheromone,"</u> by <u>Mistressbeek</u> (License: public domain); right, <u>"Bee-sting-abeille-dard-2"</u> by SuperManu (license: <u>CC BY-SA 3.0</u>).

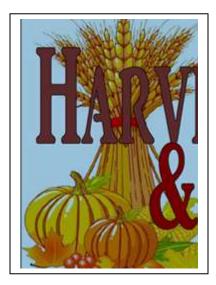
Saturday, October 17:

Seedpod Farm Harvest Festival & Craft Fair ~ A Day of Family Fun

When: 10 a.m. to 3 p.m.

Where: 2330 Howard Ave, Centralia WA 98531

What: LCBA Members Adam & Julie Gullett are hosting local producers, farmers, & artisans at their farm. There will be activities for kids, live music, fruits of the harvest season to enjoy, pumpkins, homesteading demos, and soaps, textiles, preserves, & crafts. LCBA will have a table with honey for sale, display items, & volunteers to answer questions about bees & beekeeping. For more info, visit: www.seedpodfarm.com or call 360 807 4693360 807 4693.



PLEASE MARK YOUR CALENDARS – LCBA'S NOVEMBER MONTHLY MEETING WILL BE THE 1st WEDNESDAY OF NOVEMBER ~ NOV. 4^{TH}

On November 11, Centralia College is closed for Veteran's Day.

November 4th Meeting Topic: An Inside Look at How Package Bees Are Bred & Transported; How the Oxalic Acid Vaporizer Works to Control Mites

Speaker: Mike Radford, Northwest Bee Supply, Sequim, Washington

When: 6 – 8:45 p.m.: Social Time 6 to 6:30 p.m.

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

What: Mike Radford of Northwest Bee Supply is a longtime beekeeper who rears bees in Sequim. He will give us some insights into what it's like to raise bees on a larger scale, what's involved in transporting them, and more. Also, Mike has used the new oxalic acid vaporizer method of delivering mite treatments into hives & will share a Powerpoint about how this works.

Also: short business meeting with election updates & beekeeping Q&A.

FYI to members: "Rendering Beeswax for Candles & More" has been postponed to 2016. More news as it happens!





Wednesday, December 9: LCBA's 7th Annual Holiday Potluck

Please mark your calendars & get ready to share good food, good fellowship, door prizes, & after dinner, a brief monthly meeting with board elections, fundraising drawing for our 2015 Youth Scholarship Program, our traditional Beekeeping Q&A, suggestions for 2016 speaker topics, and more.

When: 6 – 9 p.m.: Social Time 6 to 7; Dinner 7 to 8; Brief Business Meeting, including Elections & Youth Scholarship Program Drawing, 8 to 9.

Where: Newaukum Grange (directions will be in your December newsletter)

Please Bring: A dish of food to share & a plate, cutlery, & cup to eat/drink from. The Grange has tables & chairs, 3 ranges, a refrigerator, & plug-ins for hot pots. LCBA will provide coffee, tea, hot chocolate, & napkins.

Food Drive: If you'd like to bring canned food or dry goods for the Greater Chehalis Area Food Bank, please do – we'll have a donation box.

Drawing to support 2016 Youth Scholarships: Featured items will be noted in the December newsletter. If you have an item to donate, please bring it!

Questions? Contact Susanne.beekeeper@gmail.com or call 360 880 8130.

Notes from LCBA's September 9 Monthly Meeting

Topics: Fall Management Issues: Moisture Control methods; Fall / winter feeding; candy boards, pollen patties; Beekeeping Q&A



Above left, hard candy on frames below a moisture control box – the method favored by LCBA VP Kevin Reichert (above right), Jeanne Reichert, & Grant Inmon in their bee yards.

LCBA President Norm Switzler opened the meeting, noting that because Vice President Kevin Reichert's moisture control method was so comprehensive and influential on members last year, the board thought it would be a good idea for him to review it for our new beekeepers – as well as hear from those who tried it last year how that worked.

Kevin began by listing ten things we can all do now to help support our bees going into winter:

1. If you have tested your bees and know they have mites, now is the time to treat them (unless you have a non-treatment philosophy). Queens are winding down laying as the colonies prepares to over-winter, so a hive with a mite load can get overwhelmed by mites. Though Kevin himself doesn't treat his bees, he would if he had access to oxalic acid, just approved by the FDA to kill mites on adult bees.

2. Look for signs of Nosema (the characteristic poop streaks, or test by sending a bee sample to WSU), and if you see it, treat for it using Fumagillen. The dysentery that Nosema promotes will debilitate bees and make it hard for them to make use of food supplies effectively. You can pre-treat by infusing a dose of Fumagillen into the last couple of gallons of sugar-syrup you put on your bees; you can do this again in the spring if you see signs of Nosema.

3. Evaluate honey and pollen stores for winter. You can look in the hives and strategically position food frames above the brood chamber (as the bees will move up through winter). For brood boxes, the best order, from the outside to the center, is frames of honey, then pollen, then brood in the center.

4. Feed bees now if they are light on stores. Kevin is now feeding one gallon per hive per week to hives he thinks needs it. However, he's not feeding all the bees – it's best if they build up more naturally. As the temperature drops, it's time to shift from 1:1 sugar:water mix to 2:1.

5. Make candy boards now to get ready for the fall transition to dry feed. Moisture in hives during cold wet weather can chill bees and kill them, so prepare for dry winter feed. For candy board recipes, visit LCBA's website, click on the Mentors/Workshops/Classes link, then Overwintering Bees.

6. Protect hives from the wind and rain. Some move bees under shelter; others use covers (like political signs) that overhang the top by a foot or more all around. This helps keep moisture out of the hives and also provides bees with a space for cleansing flights in rainy weather.

7. Place moisture control boxes above the hive boxes – these act like sponges, drawing moisture off the colony. For details, see the slideshow of Kevin's moisture control box method on LCBA's website – it is linked under Mentors/Workshops/Classes – click on the Overwintering Bees page.

8. Give good ventilation: be sure that there is space for moisture to rise and exit the colony (see the slideshow noted in #7).

9. Add an entrance reducer to protect the colony from mice, which sometimes seek shelter in a nice warm hive for winter and can do a lot of damage to comb, as well as urinate inside the colony.

10. Get hives up off the ground to help combat moisture problems: you can put hives up on pallettes, cinder blocks, etc. if you do not already use a hive stand.

The Moisture Control Box / Winter Hard Candy Feeding Approach:

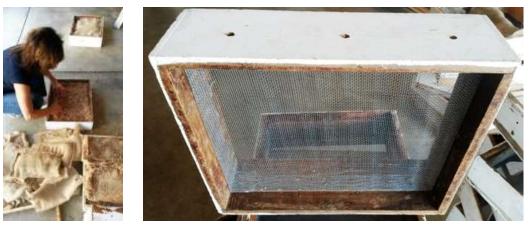


This presentation relied heavily on visuals –helpful illustrative photos supplied by Jeanne – so looking at their slideshow will be useful in reading what follows: the slideshow is posted on our website's Monthly Meetings page, as well as the Overwintering link on our Mentors/Classes page. Kevin displayed a sample moisture control box: an old shallow honey super that he morphed into a moisture box (see the photo at the start of this section).

Kevin noted that as the photos show (see above), some of their boxes are tall going into winter, as many as 2 deeps and a super, plus his moisture control box. He doesn't want to kick out bees: they will eat more, true, but survivability tends to be higher with more bees. They had 35 colonies going into winter last year, and 28 came out alive.

When Kevin, Jeanne & Grant prep their apiaries for winter, they have five goals: Insulate; Ventilate; Control Moisture; Feed; and Create a Wind & Moisture Break. Wrapping the hives in roofing paper, as shown in the photo, is optional. He wraps his bee boxes and has had success doing this: on warmer days in winter, the bees come out and fly more readily. Back east, beekeepers wrap hive boxes to protect bees from the cold, but here in the Pacific Northwest, the wraps are to protect them from getting wet. Winter moisture is our bees' biggest enemy in the PNW: the wet plus chill is a killer. Kevin uses 15 pound roofing paper for his wraps (see photo, below). He also drills one-half inch ventilation holes in boxes (visible in photo). Kevin cautioned that he doesn't drill the ventilation holes in straight, but at a 45 degree angle so that rain doesn't go right into the box.

Kevin used to be in the fire service and asked us to think of a hive as a chimney: if you open the top, all the heat goes out. When he used to come to a structure fire, people would ask why they cut holes in the roof. They did this to ventilate get smoke and toxins out. During the first few years Kevin got into bees, ten or twelve years ago, he had wet boxes over winter. It's not cold that kills – bees can fan to stay warm – but moisture, which promotes fungus and disease. There's a lot of condensation and heat buildup in hives as the bees fan to keep their cluster around 90+ degrees, so he wants to vent in a controlled way to keep heat in, moisture out.



Above left, Jeanne putting cedar chips into the box; right, see the drilled holes in the shallow super box. The screen is inserted midway, so that there is space above and below; (photos in this section by Jeanne Reichert)

Toward this goal, over the last few years, Kevin and Grant developed a system: see their "Materials" slide. Tools:1 inch all-purpose wood screws; tin snips or heavy scissors; a hardware stapler with 5/16 staples; cedar shavings, \$7 to 10 worth; 3/8 inch drill & 3/8 and 5/32 drill bit;

15-pound roofing paper, about \$20 for 100 feet; and gloves & paint of your choice. Kevin likes to use a 1x6 box to get more ventilation; a shallow super works well also. He gets bulk hardware cloth at Sunbirds and burlap at Walmart. The Farm Store in Chehalis has the best price Kevin's found on cedar shavings. Kevin predrills holes to prevent the wood from splitting. They use roofing paper to wrap the hives. Cedar shavings are not only good for absorbing moisture, but for keeping moths out. In making the boxes, he recommends using gloves to avoid getting cut.

Kevin pre-cuts the screen and staples it into the shallow super using a staple gun. He tests the fit by putting the spacer box into the telescoping lid as a guide for measurement, to be sure it will work. On a one by four, you only end up with three and a half inches. They inset the screen midway into the box because they will put candy on top of the frames when they set the box on the hives and want space above it, too, for insertion of the moisture control materials, the burlap and cedar chips. Jeanne layers in burlap, pours in the cedar chips, then tucks in more burlap, like a baby in bed. (Sometimes she makes a pillowcase out of the burlap and puts sawdust or cedar chips in it.) If you want a little more ventilation, you can step the burlap inward and leave it away from the sides an inch or so to give more ventilation. About the screen: they used a screen door screen the first time, they tried this, but it was nylon and the bees chewed through it. Now they use eighth inch mesh. Also, one could use a one inch spacer on top of the screen.

About materials to absorb that moisture: Kevin prefers cedar shavings, but he's also used dog kennel shavings that you can get as Sunbirds. You can also use towels or paper – anything that will absorb moisture. The shavings often stay dry. Most of moisture collects at top of box so it is easy to get in and out and clean and dry it out when opportunity of a warmer day in winter.

Next, once the materials are ready, it's time to put them on the bees. Pick a nice day and smoke bees first. His secret weapon is the hard candy – which he puts right on top of frame (see photo above) – and the smoker. In Kevin's slides, as noted above, there were many bees, so in some cases, he had to leave supers on: however, Kevin noted that if the supers are empty, you should get them off at this time of the year so that the bees don't have to keep extra space warm.

Next up: they give each colony a candy board. Kevin uses smoke to drive bees down, then puts candy in the screened box. Here is his candy board recipe:

Kevin & Jeanne's Candy Board Recipe: from Tim Weible

MIX:

1.5 cups water

5 lbs dry cane sugar

2 Tb. Honey B Healthy (see next page for a home-made recipe)

1 tsp "Durvet" vitamins & electrolytes (Farm Store)

Boil to 250 degrees in deep pan

Let it cool

About his candy board recipe, Kevin commented that to let it cool, he puts it in the freezer. If you try to make a candy board on the stove at home, Kevin warns that you must stir

constantly or it will boil and carmelize. He also notes that it's good to score it down the middle, then snap it in half to feed to the bees.

Kevin & Jeanne's homemade Honey-B-Healthy Recipe:

Ingredients:

5 cups water

2.5 lbs. sugar

1/8 teaspoon lecithin granules [this is a emulsifier]

15 drops spearmint oil

15 drops lemongrass oil

How to Prepare It:

Pre-soak the lecithin granules overnight in a small amount of water.

Dissolve sugar and water as you would for syrup

Remove from heat and add ingredients; stir and let cool

Place in blender and whip for 3 to 4 mins.

About their Honey-B-Healthy recipe, Kevin commented that commercial HBH has sodium laurel sulphate: they don't use that, yet their bees like it. They put this in their mix and feed not during a nectar flow, but during spring buildup and for fall feeding. Kevin also notes that when you use lecithin granules, you want to presoak the granules overnight, then stir them up well and be sure they dissolve, then put the mix in the blender and whip it. Then put it in the refrigerator. You can make this for pennies, whereas commercial HBH is spendy.

Back to the actual insertion of Kevin's candy board: Kevin noted that it was snapped in half. It had been in the freezer since spring. After putting the candy on top of the frames, Kevin puts his repurposed shallow super, with its 3 inch recess before the screen to give space, on top of candy and frames. Next, he adds a layer of burlap on top of the screen inside the spacer, then cedar shavings, then more burlap. Kevin said of the burlap: "think of it as a towel, more absorption." Kevin also noted that if you don't use that burlap as a barrier beneath the burlap, the bees have a tendency, "little devil creatures that they are," to try to seal up the screen – but they don't with the burlap in place. Kevin doesn't usually notch his inner covers: they rely on the space provided by the telescoping cover to vent. Once they pull their last honey supers, they add weight back to hives by feeding sugar syrup. They don't feed sugar boards until the end of November/early December.

To check on the food supply, Kevin looks every three weeks or so, choosing a nice day, in the 50s/60s, not raining or windy: but we can wait longer to check if it's a very cold winter: in a very cold winter, the bees will feed less, whereas in a warm winter, they may eat more. Kevin suggested that you don't have to open the hive box: you can just pick it up and feel for weight, then, when it starts feeling light, supplement food. For checking that the chips aren't saturated with moisture, you can do a quick in and out, but again, choose a mild day, and don't leave the box open long so that you don't cool the bees down.

Another way to help the bees is to take duct tape and seal the cracks between the moisture control box and upper hive box (see below). Bees won't seal that top box as they would in July, and sealing the gap cuts the air flow and prevents possible leaching in of moisture.



Above left, hard candy atop the frames; right, duct tape seals cracks in the hive set-up.

Kevin's next step is wrapping the boxes with roofing paper, as noted above: he does one continuous wrap and staples each corner as he goes along. He leaves about an inch and a half overlap on the wrap and takes care NOT to cover the air vent holes. The wrapping creates a wind and moisture break, helping to keep pounding rain off the hive boxes (the threshold is left open with an entrance restrictor so that bees can exit on warmer days to do cleansing flights). Kevin also tips the boxes a bit forward to help moisture drip out. He noted that you can punch in a hole where the notch in the inner cover is if you notch your inner covers. Kevin uses solid bottom boards: he's had good luck with these, though he is gradually switching over to screened bottom boards.

Moisture Control Box / Winter Feeding Q&A: Norm opened up the question period, nothing that what Kevin uses isn't really a candy board – which is a hive box lid with the staples on it – rather, he's using sugar candy alone. Kevin's hard candy is about half inch thick, and he puts below the moisture board. Dan asked how, when he stores the hard candy, Kevin stops it from sticking to everything around: Kevin said that after the mix cools, he leaves parchment paper on to put it into the cooler. Tim Weible and Kevin both put new candy on about three times each winter. Every 4 to 6 weeks, he checks: on a good day, he takes off the inner cover check to see how much candy is still there, to replace any cedar getting moist, etc. When he checks, if he needs to replace the candy, he smokes the bees quickly, because if they are at the top and you don't want them flying off in winter.

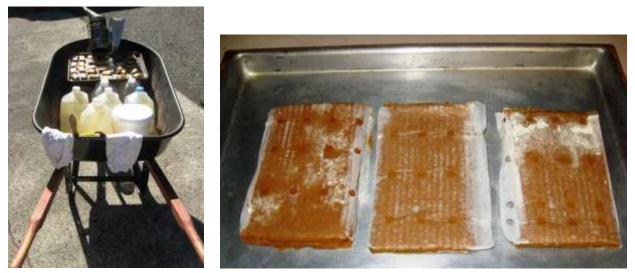
Moisture control box allows quick winter checks on your bees: For new beekeepers, Kevin noted, one nice feature of the moisture control / feeder box is that you can look in on your bees without even wearing a suit: the screen stops bees from getting out, and you can see them there. Kevin noted that you must maintenance the boxes because moisture can collect in two key places: on the upper burlap piece and on the bottom of the inner cover. In our region, with the condensation and humidity, if there is no vent, you get moisture raining down on bees – and then you get dead bees. When Kevin checks, he takes a scraper, like a paint scraper: he scrapes the inner cover, then sets it out in sun for about ten minutes - then it is fine and he can put it back. If you had extra inner covers, you could simply swap them out.

What do bees prefer – hard candy or their own stores? Norm asked if the bees preferentially ate the candy boards instead of their stored rations, leaving stores on outside frames. Kevin suggested that it's a good idea, in fall management, to place honey frames strategically toward the center, where the cluster is most likely to be, so they will get that good nutrition.

Tips on making the hard candy (see recipe, above): Kevin has found that the less water you use, the faster the candy sets, and the harder it gets. Kevin does NOT recommend making the candy on the stove: he does it on a propane stove in the garage, and he wears gloves for protection. They get Durvet vitamins and electrolytes at the Farm Store. Using a candy thermometer helps with measuring temperatures. Mel Grigorich asked if the 250 degrees destroyed the good properties of electrolytes: Kevin said he had emailed Durvet asking about that, but did not get much back in response. It is a good question. Some think that the electrolytes are almost an inert substance that does not degrade.

Also, Kevin noted that the lethicin in the recipe doesn't dissolve well, so he presoaks it. He gets the lecithin at a health food store. He uses food grade on all ingredients: just costs a little more, but better for the bees.

Alternative winter feeding options: There are other feeding methods, like sprinkling dry sugar on a surface. But Kevin likes this method: the bees eat the hard candy up very fast and also, the candy collects moisture venting up – it softens the hard candy and makes eating easier for the bees. The "no-boil" method is also on the website: Kevin doesn't use it, though some really like it. Dan said that he has used it with a little corn syrup, just enough to soften it, and his bees ate it right up.



Above left: wheelbarrow full of fall feeding goodies (2:1 syrup; pollen patties); right, closeup of 15% pollen patties. The white dust is powdered sugar to help prevent patties sticking together.

Pollen patties: Dan added pollen patty to the hard candy mix and made it into a comprehensive feed. Kevin asked who is feeding pollen patties – many already are. Kevin expressed some surprise that Norm is feeding his bees; Norm commented, "What works - even an old guy can learn." As for feeding pollen patties, Norm noted that he has seen many beekeepers succeed by feeding these, so now he does too, whereas in the past, that went against

his philosophy. The bottom line is that you want your bees to survive, so you do what you can, including change your habits. Now Norm gives his bees both pollen patties and syrup (the latter using the economical "slit baggie" method).

How well does this moisture control box method work for others? Mel brings his bees inside and puts hay bales around them. His candy boards did have moisture problems, but then he tried Kevin's approach last year, and it worked better. Kevin noticed the hives he has out in open that he wraps have less moisture than those under shelter. Steve Howard reported that he used moisture control boxes and had no moisture problems; neither did Peter and Susanne. Paige Steelhammer tried it and said that "as far as I know," his bees were fine. Kasey Studeman said that a friend of his saw our newsletter last year, then used Kevin's method on nine hives and had no moisture problem is making a similar box.

Thoughts about ventilation: Kevin said that sometimes he thinks you can't get too much ventilation. If anything, he'd make his vent holes bigger. Another thing you can do to improve ventilation is to step the burlap off a couple corners.

Bottom boards: to screen or not to screen? Kevin originally didn't use screened bottom boards, though now he has some and is gradually switching over. Walt asked about solid bottom boards: wouldn't it be warmer in the hive without that lower screen? Kevin noted that the bees don't keep the box warm: rather, they keep the cluster warm. In the rest of the box, the ambient temperature will be basically the air temperature. Gottfried asked about entrance restrictors: Kevin said that yes, he uses them.

Overhanging rain guards: Like Norm, Kevin puts rain guards over the top of his hive boxes, like political signs, with cinder block on top to hold it in place in case of wind. These rain guards let bees perform cleansing flights when it is raining. To weight his down, Norm uses potted plants (different for each, which helps him to ID the bees).



Above left, rain guards over hives out in the open; right, bees, coming & going from notched inner cover on a rainy day under shelter of the rain guard.

Is there a definitive answer to "should you put bees under cover?" As usual, there are no definitive answers about bees. Martin had three under cover and two outside: the two outside colonies did better than those undercover, probably because moisture built up under cover. Ventilation was a problem, so he moved them outside. He uses the garden roof style to help with moisture. He is near a creek. Dan noted that bees can get disoriented if enclosed. Norm said that

just putting them under a roof with no sides could help: bees need air movement, and sun when it happens. Martin built his roofs five inches longer on both sides so that he can shift them, and bees can come out and sit. Peter noted that you have to assess the best orientation for your hives.

Mouse guards: On the monthly meeting link on our website, next to the November 2014 meeting, there's a link on mouse guards. Rick noted if you leave inspection sticky boards in, you can assess if there's possible mouse activity from detritus on the boards. He had this happen, and on a day that was warm enough, he got the mouse out.



Above left, <u>"Mouse Guard,"</u> by Shawn Caza (license, <u>CC BY-NC-SA</u>); right, mice propolized inside a bee colony at a July 29, 2014 LCBA colony removal workshop.

Box approaches and materials: Dan noted that when a deep has passed its useful life as a brood box, you could rip it in half, make a super out of one half and use rest as a moisture box. Kevin noted Steve used pine, though he (K) used fir, which is heavier and a little cheaper. Robin Gould noted that bees like to come and go through the notched inner cover: how can they do that with this approach? Kevin said that they come and go through the lower entrance. If you put the inner cover below the moisture board, then there is no room for the candy. Norm noted that he uses a slotted inner cover year round and does not seem to have moisture build up. If water is not pouring in, then it is good for to have heat of hive push moisture out. Kevin also noted tipping hives a little, elevating the back of hive so that moisture can run out.

If you turn a hive around, can bees navigate home? Norm noted that bees will have to re-orient: if you move the hive, put twigs across the entry, and they'll realize something is different. Martin noted that it's best to move hives in early morning or at night, when the foragers are not out. Rick added that the robbing screen helps – if you add it after moving, they will have to reorient. Dan noted to avoid heavy losses of lost bees he moves five hives, he leaves one "clean up hive" behind to collect strays and then a couple weeks laeter goes back to get them. Seasonally, what is the best time to move bees? Norm says don't move them in winter – you don't want to disturb the cluster.

Should tall stacks of hive boxes be broken down for winter? Kevin has some colonies with 3 or 4 deeps or supers, and he will leave them like that for winter: there is no need to break them down if frames are all full of food and brood. Norm asked to follow up on Linda Gorremans' question: how did Kevin know to put on more boxes relatively late in the season?

Kevin answered that the issue was congestion: he had big colonies filling boxes, and he didn't want to do a late split. The option would have been to rob frames out to relieve congestion or put another box on. Above all, you don't want a late swarm. This year, Kevin pulled honey in July, not August, because of the unusually early warm season we had, and so he had to put another honey super on because there were so many bees in the colonies. He would rather split them in spring, when a new colony has time and forage to build up.

Queen issues: A number of members noted that store bought queens out of California have not been good. Kevin had good queens from Tim Weible. Kevin thinks it's best if the bees requeen themselves, but it is a timing issue, especially if you want to take advantage of the nectar flow and later pull honey. Peter noted the McMinneville breeder from whom Rick got a good colony: there's benefit in having northwest-reared bees.

When to remove moisture control boxes? Kevin noted that he usually takes off the moisture boards in mid- to late April, as the weather warms up. For storage, he just makes sure that the boxes are dry and stacks them.



Above, filling the moisture box with cedar shavings & tucking in the burlap.

Where to source burlap for the moisture control box? Robin asked if the burlap is treated: Kevin said this was a good point, and he gets his from "a coffee guy." Deanna Brix asked if printing on burlap could be an issue: Kevin noted if concerned, one can use old towels. Norm has talked to people who use diapers – Kevin said, sure, let's get creative, and Mel suggested "Depends."

Top Bar Hives and Moisture Control? Deanna asked whether, if Kevin had top bar hives, would he wrap them? Kevin doesn't have top bars: he asked Gottfried Fritz, who said he didn't wrap his top bars, and they made it through winter fine. Norm said that Dave Gaston never wraps his top bars, but does use a lid that is metalized to shed moisture. Also, with Langstroths, you can put a tilted Warre-style roof on to help shed moisture.

September 9 Business Meeting:

Treasurer's Report: \$3,062.65 is our checking balance; the Youth Scholarship fund has \$1,205.65. Rick noted that we had expenses related to the Fair: we bought the refractometer and Jack's scale for the judging, as well as provided admission and parking passes for all volunteers, and we had many volunteers - which made our exhibit vibrant, with many volunteers busy answering questions from lots of visitors. Dan and Susanne thanked members who stepped up to do this public outreach (see our last newsletter for details on the Fair).

Upcoming Events: Susanne reviewed the website and announced the October 17 Seedpod Farm Harvest Festival in Centralia, organized by members Julie and Adam Gullett. LCBA will have a table, and Susanne asked possible volunteers to contact her or Dan.

Q&A: *Club Apiary?* Phil Wilson asked about the club apiary, noted as a club goal in our bylaws: do we have one? Norm answered that this is a goal. It's nice to visit members' apiaries, but repeated workshops at one or two apiaries with lots of attendees can stress those bees, so it would be good to have more places. A club apiary could also be a site for queen rearing. The board is exploring options of placing bees on some local organic farms, and the club's been approached by some area residents who want bees for pollination, but do not want to keep bees, and would be willing to let us hold workshops on their property. Down the road, though, it would be ideal to have our own space. Norm also noted Kevin's suggestion that the club acquire a truck to pull bees around – portable workshops. Susanne noted that the Knoll, the nature area across from our meeting hall, might be a possibility for hosting some hives eventually.

WSBA Area 2 meeting: Norm noted that on October 3, some of our board members are meeting with board members from Pierce, Olympia, and possibly other Area 2 bee clubs to talk about issues we have in common and ways our clubs could support each other. We'll report back to the club at our next meeting about this.

911 at the Fair: Phil noted that the 911 booth at the Fair made him wonder if perhaps we could have 911 do a talk at one of our meetings about anaphylactic shock, venom toxicities, etc. Peggy Hammer, a new member, said she works with first responders, so check with her.

2016 Board Elections Update & Possible Change of Monthly Meeting Day to 2nd Thursdays in 2016:

Under LCBA's new bylaws (adopted last fall), our nominating committee – Nancy Toenyan and Secretary Susanne Weil – is required to send a slate with a candidate for each vacant position to all current dues-paying members by November 1; any additional nominations by members can be sent to Nancy or Susanne by Nov 15. We'll have an update at our October 14 meeting, but because Oct 14th is the last possible 2nd Wednesday and the turn-around is tight, the board wants to let members know the progress so far.

The offices of President, Treasurer, Community Outreach Coordinator, and Mentorship Coordinator are up for re-election for 2016. Our president, Norm Switzler, is term-limited out at the end of 2015 and will become our ex-officio past president; our VP, Kevin Reichert, is willing to run for the presidency. Current treasurer Rick Battin, Community Outreach Coordinator Dan Maughan, and Mentorship Coordinator Martin Stenzig are willing to serve again.

Given the short turn-around from our Oct 14 meeting to Nov 1, the board has actively looked at possible candidates for the vice presidency. Our founding president, Bob Harris, is willing to run for VP, but because of his pastoral duties, he is not able to attend Wednesday meetings. A number of members have Wednesday night church commitments and have inquired about different monthly meeting dates, so the board will ask our membership on Oct 14 if a shift to 2nd Thursdays in 2016 would be acceptable.

If you cannot attend the meeting but want to weigh in on this, please email Susanne with your thoughts! If you are interested in running for a board position, please contact Susanne or Nancy (ntoenyan @ tds.net). FYI, board positions are volunteer positions with no reward other than the pleasure of being of service. If you are not interested in being a board member but would like to be involved in helping the board with particular projects, please contact the nominating committee about that, too!

Highlights from LCBA's Sept 12 Fall Management Workshop



Above, LCBA President Norm Switzler leads a small group of beekeepers at our September 12 fall management issues workshop. Norm was one of 8 mentors at this, our last hands-on mentorled workshop of 2015. Mentors worked with over 30 enthusiastic beekeepers: we opened hives, assessed colony condition, identified mite problems, wax moth damage, manipulated hives to relieve honeybound conditions, & more. Thanks again to our mentors - Mentorship Coordinator Martin Stenzig, host & LCBA Community Outreach Coordinator Dan Maughan, President Norm Switzler, VP Kevin Reichert, Treasurer Rick Battin, mentor William Pittman, longtime beekeeper & mentor Gottfried Fritz, & Secretary Susanne Weil. Special thanks to host Dan Maughan for turning us loose in his apiary!



September Is National Honey Month, & Honey Is Voted "Flavor of the Year"

Condensed from Bee Culture's "CATCH THE BUZZ" e-zine, September 24, 2015:

Swiss perfume and flavor giant Firmenich SA has made honey 2015 "Flavor of the Year," praising "its unique flavor and its versatility as an ingredient." Firmenich's flavor gurus "chose honey for this award because they believe it has the potential of becoming a 'classic' flavor. Honey may be well on its way to joining the likes of vanilla, chocolate and strawberry in

this prestigious category and consumers seem to agree. According to a recent Consumer Sweetener Usage & Attitudes Study Report2 fielded by the NHB, 6 out of 10 consumers agreed that foods sweetened with honey taste better than foods made with other sweeteners. In addition, 46 percent of total consumers say they have used honey in the past month3 adding to the continued growth and demand of honey on menus and in households."



For some amazing fall recipes with honey, check out the National Honey Board's blog: http://www.honey.com/blog/2015/detail/the-sweetness-of-fall-15-honey-inspired-fall-recipes

The National Honey Board is "thrilled," though perhaps not surprised. "We have seen honey grow exponentially in its use with chefs, manufacturers and consumers over the last few years, especially with yogurt, craft beers and baked goods," explained Catherine Barry, NHB director of marketing. 'With consumers preferences leaning towards artisanal, natural and clean-label ingredients; we believe consumers are realizing the potential of honey as a premier ingredient in foods and beverages. . . . [f]rom craft beers and cocktails, functional beverages to baked goods and snack bars."

Those who took part in LCBA's "People's Choice Honey Tasting Contest" at the Fair this summer can back up the "senior flavorists" at Firmenich, who noted, "Crafted from the nectar of flowering plants, honey's unique flavor profile is unlike any other. With more than 300 varietals in the United States, ranging in flavor and appearance, this iconic sweetener pleases all taste preferences and is appealing to consumers of all ages. Honey flavors can range from lighter colored honeys, which are milder in flavor, to darker honeys that tend to be more robust, making it easy to choose the right kind of honey for the recipe ahead."Firmenich "thinks honey winning the 2015 Flavor of the Year award is just the beginning for this artisanal ingredient." (Perhaps Firmenich hasn't heard about viable 3000 year old honey taken from Egyptian pyramids?)

The National Honey Board has celebrated this win by creating a special fall honey feast menu: Honey Pumpkin Muffins; Curried Sweet Potato Soup with honey; Sage Honey Roast Acorn Squash; Slow Cooker Honey Sweet and Sour Chicken with Crushed Red Pepper and Caramelized Onions; and Honey Pot Cider.

Recipes follow, courtesy of the NHB (all rights reserved; copyright 2015). The National Honey Board has given LCBA permission to reprint its recipes in our newsletter and on our website and Facebook pages; to see photos, though, which are copyrighted by the photographers, visit <u>www.honey.com</u> and put the recipe title in the search bar.)

Honey Pumpkin Muffins (National Honey Board, 2015)

Ingredients

1-1/2 cups - all-purpose flour
1-1/2 teaspoons - baking powder
1 teaspoon - baking soda
1/4 teaspoon - salt
1-1/2 teaspoons - ground cinnamon
1/2 teaspoon - ground ginger
1/4 teaspoon - ground nutmeg
1/4 cup (1/2 stick) - butter or margarine
3/4 cup - honey
1 - egg
1 cup - solid-pack pumpkin
1 cup - chopped toasted walnuts

Directions

In medium bowl, combine flour, baking powder, baking soda, salt, cinnamon, ginger and nutmeg; set aside. Using an electric mixer, beat butter until light; beat in honey, egg and pumpkin. Gradually add flour mixture, mixing until just blended; stir in walnuts. Spoon into 12 greased or paper-lined 2-1/2 inch muffin cups. Bake at 350°F for 25 to 30 minutes, or until toothpick inserted in center comes out clean. Remove muffins from pan to wire rack. Serve warm or at room temperature.

Curried Sweet Potato Soup (National Honey Board, 2015)

Ingredients

- 1 Tablespoon olive oil
- 1 onion, diced
- 4 medium-sized cloves garlic, peeled
- 6 cups (48 oz.) chicken or vegetable stock
- 1 lb. sweet potatoes, peeled and cut into chunks
- 1 medium russet potato, peeled and cut into chunks
- 2 teaspoons salt
- 6 Tablespoons Orange Blossom honey, divided
- 1 medium red bell pepper, seeded and diced
- 2 to 3 teaspoons curry powder
- 1/2 teaspoon pepper
- 1/2 teaspoon ground ginger
- 1/4 cup chopped fresh cilantro, optional

Directions

Heat oil over medium-high heat in a soup pot. Add onion and sauté until translucent, 2 to 3 minutes. Add garlic and sauté 1 minute. Add stock, potatoes and salt. Cover and simmer until potatoes are tender, about 15 minutes. Puree mixture in batches, put soup back over low heat and add 5 Tablespoons of the honey, bell pepper, curry powder, pepper and ginger. Bring to a simmer, taste and adjust seasonings. Microwave remaining 1 Tablespoon honey for 5 seconds on High. Serve soup drizzled with a little warm honey and sprinkled with chopped cilantro

Sage-Honey Roasted Acorn Squash

Copyright 2015, National Honey Board. All Rights Reserved. Recipe courtesy of Chef David Guas, Owner of Bayou Bakery, Coffee Bar & Eatery in Arlington, VA.

Ingredients

2 - acorn squashes 1 cup plus 1 tablespoon - water 1/4 cup - sage honey 1/2 teaspoon - kosher salt For Honey Butter: 1/2 cup - unsalted butter 1/2 cup - sage honey 2 tablespoons - fresh sage leaves, chopped Fleur de Sel or Maldon salt, to taste

Directions

Preheat the oven to 350 degrees.

Cut each acorn squash in half lengthwise and, using a metal spoon, scoop out and discard the seeds and any pulp. Pour 1 cup of water into a 4-inch deep ovenproof pan; arrange each squash, cut side up, snugly on top.

In a small bowl stir together $\frac{1}{4}$ cup sage honey, 1 tablespoon of water and salt; brush the cut side of each squash with the honey solution, making sure that all of the honey solution is used. Cover the pan tightly with foil and bake for 30 minutes.

While the squash is cooking, make the sage honey butter. Heat a 6-inch sauté pan over medium heat until hot; add the butter and swirl until foaming; cook until nutty brown in color. Remove from the heat and immediately add ½ cup sage honey and the sage leaves, stirring well. Set aside.

Remove the foil from the squash and bake for another 15 minutes or until golden and tender when tested with the tip of a knife.

Transfer the squash to a serving platter and spoon the sage-honey butter on top, then sprinkle with Fleur de Sel or Maldon salt.

Slow Cooker Honey Sweet & Sour Chicken with Crushed Red Pepper & Caramelized Onions

Recipe courtesy of Marie Simmons, cookbook author; Copyright 2015, National Honey Board. All Rights Reserved.

Ingredients:

3 pounds (about 8) large - bone-in chicken thighs, skin and fat removed, rinsed and patted dry coarse salt and freshly ground black pepper

 $\frac{1}{2}$ cup - tomato sauce

¹/₄ cup - honey

 $\frac{1}{4}$ cup = - apple cider vinegar

 $\frac{1}{2}$ teaspoon - crushed red pepper

2 tablespoons - extra virgin olive oil

2 cups - onions, thin lengthwise slices

Directions

Spray the insert of your slow cooker with non-stick cooking spray.

Lightly season both sides of the chicken thighs with salt and pepper. Place the pieces in the slow cooker. In a bowl stir the tomato sauce, honey, vinegar and red pepper until blended. Pour over the chicken.

Cover and cook the chicken on low until the chicken is cooked through, 3 to 4 hours, depending on your slow cooker. Lift the cooked chicken from the juices and place in an oven proof serving dish. Cover with foil and keep warm in a low oven. Reserve the juices. There will be 1 to 2 cups.

Meanwhile heat oil in a medium skillet until hot enough to sizzle a piece of onion. Add the onion and cook, stirring occasionally, over low heat, until the onions are golden, about 15 minutes. Add the reserved juices and gently boil until reduced by about half. Spoon the onion mixture over the chicken and garnish with the parsley or oregano.

Honey Pot Cider

Copyright 2015, National Honey Board. All Rights Reserved.

Ingredients

1-1/4 cup - apple cider

1 Tablespoon - Orange Blossom honey

1 pinch - cinnamon

1-3/4 oz. - Apple Jack brandy

1 - cinnamon stick

2 - apple slices

Directions:

Combine the apple cider, honey and cinnamon in a small saucepan and stir over medium heat for about 5 minutes or until heated through. Stir in the Apple Jack brandy and pour the cider into a mug.

With the tip of a small knife, pierce small holes in the apples and string them onto a cinnamon stick. Place the garnish across or in the cider.

A 'Bee-Friendly' Guide to Help Save The Honey Bees

Inspired By Winnie-the-Pooh and Friends



Created by the British Beekeepers Association and Egmont Publishing



New Winnie-the-Pooh Story Shows Children How to Help Bees

Calling Winnie-the-Pooh-Fan Beekeepers! British beeks have created a book of activities to do with children - planting, cooking, & more - all to support honey bees. Best of all, it includes a brand new short story in which Winnie the Pooh & Christopher Robin embark on a planting venture to help the bees so Pooh won't go honey-less. Adorable & free! Thanks to Phil Wilson for forwarding this URL, where you can download the PDF: http://www.friendsofthehoneybee.c om/2015/06/winnie-the-poohjoins-our-campaign/

Happy reading to you & the children in your life!

BEES IN THE NEWS

Thanks to Fran Bach, Steve Norton, Phil Wilson, & the folks at Bee Culture, American Bee Journal, & Paul Lundy at WSBA for bee news stories. Please keep 'em coming!

The Bee Informed Partnership National Management Survey, 2014 – 2015: 25 Sept 2015

After sharing preliminary results earlier this year, Bee Informed Partnership has published its fully analyzed 2014-15 bee loss report. Northern states suffered 48% losses, southern states 37%. The study is based on management practices reported by over 6000 beekeepers whose 400,000 make up roughly 14.5% of the U.S.'s 2.74 million colonies. This year, BIP looked at possibly relationships between management practices and bee losses. They warn readers, though, about the old logical fallacy: a correlation is not necessarily a cause. To view results, visit:

https://beeinformed.org/results/the-bee-informed-partnership-national-management-survey-2014-2015/

"Wildflowers help control crop pests": Bee Culture's Catch the Buzz, 10 Sept 2015

As evidence showing sublethal effects of neonicotinoids on honey bees mounts, a new study from Switzerland has looked into biotic controls – pitting beneficial insects against insect pests. Researchers planted wildflowers alongside wheat and discovered that doing so attracted "helpful bugs that eat pests."

The target pest was the cereal leaf beetle, a serious threat to wheat crops. Focusing on winter wheat, researchers planted "dill, corn chamomile, garden chervil, cornflowers, cilantro, and red poppies" – plants that provide not only food, but shelter for lacewings, ladybirds, and other insects who eat the beetles.

Results showed that "fields with flower strips had 40 percent fewer cereal leaf beetle larvae and 53 percent fewer adult beetles . . . leaf damage was 61 percent lower in the flower-fringed fields . . . wheat yield could rise by 2.5 to 10 percent as a result." The researchers believe that their careful choice of flower mix sparked this success – and if it proves profitable, the flower strips, too, may be marketable.

To read more, visit: <u>http://www.beeculture.com/catch-the-buzz-more-flowers-more-food-more-bees-fewer-pests-can-it-get-any-</u>

better/?utm_source=Catch+The+Buzz&utm_campaign=f26756c5cb-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-f26756c5cb-256261065

"The Latest Threat to Bees Stops Them From Smelling the Flowers": 11 Sept 2015, *Take Part Action*

Ozone levels are rising as the climate warms – and this will challenge bumblebees and other pollinators even further in their quest for forage. Ground-level ozone makes it harder for bees to smell "microscopic scent molecules" put forth by flowers. Those molecules disintegrate faster as ozone levels rise. Since these flowers "won't maintain their scent for as long or over as great a distance," their attractiveness to bees will decline, too, with the result that "[p]ollinators will become less efficient at finding food, while the plants "will experience a decrease in pollinator visitation rates that can limit their reproductive success."

Earlier studies have found the same ozone impact on the striped cucumber beetle, "a pest predator that eats crops such as cucumbers and pumpkins. As ozone levels rise, these predators also demonstrated lowered attraction to scent molecules."

The new study focused on bumblebees, but is expected to "be relevant to other pollinators, especially other kinds of bees," according to a conservation biologist with the Xerces Society: "Anything that reduces their ability to do so would decrease foraging efficiency and thus make each foraging trip more energetically expensive . . . [and could] lower the bees' reproduction because they would expend too much energy looking for food."

To read more, visit: <u>http://www.takepart.com/article/2015/09/10/latest-threat-bees-stops-them-smelling-flowers?cmpid=tpdaily-eml-2015-09-10</u>

"Big Win for Honey Bees & Beekeepers as Court Voids Insecticide": WSBA Website, 13 Sept 2015

The EPA was defeated before the 9th Circuit Court of Appeals, which has ruled that the agency was premature in approving Sulfoxaflor, a neonicotinoid subclass pesticide, for sale. Subsequent studies have documented significant sublethal effects on honey bees. The court has canceled the pesticide's approval in a major victory for the honey and beekeeping groups that filed the suit. To read more, visit *The New York Times*' website: <u>http://nyti.ms/1MeZad1</u>

"Organic Pesticides Still Kill Bees": Bee Culture's Catch the Buzz, 5 Oct 2015

Concern about pesticides should not blind us to the fact that even organic pesticides still contain chemicals. Botanical insecticides' impact on bees has received little attention. A new study analyzed how toxic – both in direct contact and chronic, sublethal effects – "botanical insecticides such as andiroba oil, citronella oil, eucalyptus oil, garlic extract, neem oil, and rotenone" are to honey bees.

Of these botanicals, "only andiroba oil demonstrated no lethality to A. mellifera adult workers." In contrast, "andiroba oil, garlic extract, and neem oil demonstrated an acute toxicity to bee larvae." Also, with the sole excepton of eucalyptus oil, "larvae fed with syrup containing the other insecticides led to the development of lower body mass in adult workers." But eucalyptus oil isn't wholly benign to bees: "eucalyptus oil, garlic extract, neem oil, and rotenone decreased the rate of walking activity in adult workers."

To read more, visit: <u>http://www.beeculture.com/catch-the-buzz-organic-pesticides-still-kill-bees/?utm_source=Catch+The+Buzz&utm_campaign=196ec25433-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-196ec25433-256261065</u> To read the complete study, click here: http://jinsectscience.oxfordjournals.org/content/15/1/137

"Study Shows Africanized Bees Continue to Spread in California": *American Bee Journal* 11 Sept 2015

A new UC San Diego study has found that Africanized honey bees are still expanding their range to the north and are now "found as far north as California's delta region." Meanwhile, "more than 60 percent of the foraging honey bees in San Diego County are Africanized." Most of those are from feral colonies, according to the head of the research team, Joshua Kohn, professor of biology. As was found in Texas, after the first shock of hybridization, the feral bees' DNA blends "African and European genes, with the majority of the genome from Africa."

The study analyzed "genetic markers of 265 honey bees they collected at 91 sites throughout the state. They found Africanized genetic traits in honey bees as far north as 40 kilometers south of Sacramento in the state's central valley. In the bees they collected in San Diego, they also discovered that more than 60 percent of foraging honey bee workers have Africanized genetic traits, but that African traits are found in only 13 percent of managed or commercial hives."

Temperature seems to be limiting the speed of Africanized bees' expansion, though. "Scientists estimate that Africanized bees are capable of expanding their range by as much as 300 to 500 kilometers per year. But because the UC San Diego biologists found Africanized bees only 250 kilometers from their northernmost limit in 2006, they concluded that Africanized bees'

expansion rate in California has slowed considerably. Since Africanized bees have a limited ability to survive cold temperatures, this slower expansion rate could be an indication that they are approaching--or have already reached--their northernmost temperature limits. The biologists said their sampling last spring followed the warmest winter on record for the state and that a continued warming trend, predicted by some climate change models, could further expand the range of Africanized bees."

The silver lining may be that Africanized genetics could potentially strengthen bees used in commercial pollination. Kohn said that "Feral Africanized bees have replaced European ones everywhere from Brazil to California," not only due to aggression, but disease and mite resistance. "By dissecting the genomes of Africanized honey bees to find regions responsible for advantageous traits, we may be able to combat recent declines in managed honey bee populations that are so critical for food production," Kohn suggested.

To learn more, visit: <u>http://us1.campaignarchive1.com/?u=5fd2b1aa990e63193af2a573d&id=f8c00134e8&e=e9ff21e</u> <u>0bb</u>

ANNOUNCEMENTS

Local Honey is Still Available: Visit our website, click on Honey, then on "Buy Local Honey." If you're an LCBA member who is selling your honey, let Susanne know to be listed on the site.

WSBA Elections: On October 11, WSBA will hold its fall meeting at the Rodeo BBQ in Ellensburg. If you'd like to serve on WSBA's board or have concerns or suggestions for WSBA, please contact WSBA Secretary Susanne Weil (<u>Susanne.beekeeper@gmail.com</u>)or Charles Bennett, Vice President of WSBA, at <u>vpresident@wasba.org</u>.

BEE INFORMED: Help Bee Research by Joining HiveCheck & Taking a Monthly Survey – Free, with access to HC Resources

From BIP: "The Bee Informed Partnership invites you to check out our latest program for backyard beekeepers, BIP's HiveCheck Program. Every two weeks we're sending hundreds of beekeepers across the country a short 10 question survey asking how they are managing their colonies to share management practices with each other. At the end of each week we send a detailed report of all the responses to our participants including filters to see management trends by region and even by state for premium members! Join Us Today By Signing Up For A Free National Report Membership! If you like you can also sign up for our premium membership to Support Bee Informed's research and receive more detailed reports. We hope to see you sharing your management practices with us and the nation!" – The Bee Informed Team

To read more & sign up, visit: <u>http://www.beeculture.com/catch-the-buzz-bips-new-hivecheck-</u>2-0-regional-survey/?utm_source=Catch+The+Buzz&utm_campaign=8ad9dac5ac-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-8ad9dac5ac-256261065

Webinars from American Beekeeping Federation: Primetime with Honey bees: Beekeeping, Honey Bees and More!

Wednesday, November 11, 2015, 7:00 p.m. PT; please visit our ABF website at http://www.abfnet.org/ for more information and to sign up.

SESSION DETAILS: ABF Vice President Gene Brandi shares challenges that beekeepers face and the effects of pesticides on the honey bee population. Beekeepers are losing 30-50% of their hives each year, so this is a pressing issue for all who are interested in the population. Gene will update us on everything that ABF board members and leaders are doing to help reverse the trend, and provides insight into how everyone can lend a helping hand. Register Now at https://attendee.gotowebinar.com/register/1743910472247926530

Western Apicultural Society Newsletters: <u>http://groups.ucanr.org/WAS/WAS_Journal.</u> 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.

WSBA Newsletter: Pick up your copy online at www.wasba.org: click on "Newsletters."

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

~~ Susanne Weil, LCBA Secretary (<u>Susanne.beekeeper@gmail.com</u>; 360 880 8130)