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October 2013 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: susanne.beekeeper@gmail.com or call 360 880 8130.

UPCOMING LCBA EVENTS:

October 3 – 6, 2013: WSBA Conference, Federal Way, WA. This year's WSBA conference focuses on techniques beekeepers can take home to their apiaries. Featured speakers include Les Crowder (*Top Bar Beekeeping*), Howland Blackiston (*Beekeeping for Dummies*), and Michael Bush (*The Practical Beekeeper*). Session topics include Rearing Your Own Queens, Natural Cycles of a Colony, Pesticides, Simple Steps to Healthier Bees, "Jeaporbee," and more. To check the complete schedule, visit:

http://lewiscountybeekeepers.org/yahoo_site_admin/assets/docs/2013_WSBA_Conference_Agenda.195124506.pdf. Registration is \$100 per individual, \$200 per family; for registration details & a download-able form, visit: <http://wasba.org/wp/wp-content/uploads/2013/07/2013-Washington-State-Beekeepers-Conference-Registration-Form.pdf>. To register online, visit: <http://wasba.org/event/wsba-annual-conference-2013/> Schedule & registration are attached.

**October 9: LCBA Monthly Meeting, 7 – 9 p.m., 103 Washington Hall, Centralia College
Social Time 6:30 to 7 – Come Talk Bees!**

Topic: "Creators' Corner": The coming winter offers time for projects to make next year's beekeeping better. Volunteers Mike Helms, Dave Gaston, Bob Harris, & Tomme Trikosko will demonstrate, respectively: foundationless beekeeping options & a new type of entrance restrictor; a simpler method of building top bar hives; a new kind of observation hive; and Ohio State U's "Broodmapper" online "citizen science" project, which researches the effect of miticide/fungicide interactions on honey bee brood survival and development by evaluating & scoring photos of brood frames. Bring your curiosity – and if you have projects you'd like to share or topics you'd like to learn about, please let us know – we have 2014 meetings to plan...

Business Meeting: Beekeeping Q&A. Also: monthly raffle.

October 12, 10 a.m. to 4 p.m.: Our Annual Honey-Spinning workshop ~ Winlock LCBA members will share extractors & equipment to help others get their honey (if you have equipment to share, please let Susanne know). Bring your supers ~ please, no more than 2, so that others don't have to wait too long; please also bring your own buckets (2 if you want to keep your wax cappings). You're also welcome to just bring your curiosity! Questions? Email susanne.beekeeper@gmail.com or call 360 880 8130.

October 24, 31, Nov. 7, 14: LCBA / WSBA Apprentice Beekeeping Course, Lewis County Extension Classroom, Old Chehalis Courthouse; Cost: \$30 individual; \$45 couple or family.

LCBA Past President Bob Harris and President Norm Switzler will teach this introductory class, assisted by Peter Glover, Sheila Gray, and Susanne Weil. The course is sponsored by Lewis County Extension. The registration brochure is available on our website. Questions? Contact LCBA Secretary Susanne: susanne.beekeeper@gmail.com or 360 880 8130.

November 13: Movie Night - PLEASE NOTE SPECIAL TIME: The new film about challenges facing bees & beekeepers worldwide, *More Than Honey*, will air at 6:30 p.m. It runs 90 minutes, & we'll have Q&A about the film, plus a brief business meeting, after a break at 8 p.m. No admissions charge, but we'll have a "suggested donations" can with an amount TBA (probably about \$2). To view the film's trailer, visit: <http://vimeo.com/45684169>. We'll have a review by Dewey Caron in November's newsletter.

December 11: LCBA Holiday Potluck, 7-9 p.m.

Please mark your calendars for LCBA's 5th Annual Holiday Potluck and get ready to share good food, good fellowship, door prizes, & after dinner, a brief monthly meeting with our traditional Beekeeping Q&A. We'll discuss the question of ordering package bees, take your suggestions for 2013 speaker topics, and more.

Please Bring: A dish of food to share & a plate, cutlery, & cup to eat/drink from.

Our site has 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.

Directions & Questions: *Contact Susanne Weil, LCBA Secretary, at Susanne.beekeeper@gmail.com, or call 360 880 8130.*

NOTES FROM LCBA'S September 11, 2013 MONTHLY MEETING

Announcements: if you bring a sample of bees in alcohol to a monthly meeting, Susanne or Gary will grind them up and make a slide for you; Gary will be bringing his microscope and Susanne the slide preparation materials. We can't scale your sample to determine the extent of infestation your colony faces, but we can at least let you know what your bees are battling. At this meeting, Terrie and Michaela Phillips brought a bee sample and no Nosema spores were found.

Program:

LCBA President Norm Switzler kicked off the meeting with an overview of our agenda, then introduced Membership Coordinator Steve Howard to how new members can get a nametag: please write your name on a piece of paper they way you want it to read on your tag, and Steve will get it processed at Alderson's Awards West (about ten days).

Evaluating Queen Quality & Re-Queening: V. P. Dave Gaston

Dave shared information he's picked up from the queen rearing classes he has taken. At a meeting earlier in the week, Dave saw a shirt that read, "God Save the Queen": it made him think, "Not always: it depends on queen quality."

Evaluating the brood pattern: Dave looks for a strong brood pattern [see photo], but notes that evaluation must be careful, not a snap decision. He observes whether the pattern is spotty or full. One tool he got in a class is a "quick and dirty piece of plastic you put over frames" it measures 100 cells, of which you count the empties and thus can judge whether you have a decent brood pattern or not. If more than 90 percent of cells are full, that's great – if over ten percent are empty, watch out. However, in the 10+% empty condition, you must analyze whether or not there's just been a hatch-out or whether new bees are currently emerging from cells.

(Below, one of Dave's top bar frames displays a strong brood pattern. Note white honey arch at top of frame, with brood below. In close-up on the screen, we could see that many of the empty looking cells actually had larvae inside.)



Hygienic behavior or poor laying? Dave has also learned that a spotty brood pattern can result from the bee's own good hygienic behavior, pulling out mite-infested larvae. Bees that display this pattern come from a queen with hygienic traits. But how can you tell that that's the situation and not a bad brood pattern? Dave's been told that you can tell the difference by using a magnifying glass: if the edges of the empty cells are chewed up, then bees opened them, displaying hygienic behavior. However, if the edges of the cells are smooth, then the bees hatched out normally, or the queen didn't lay in those cells to begin with. Another clue that your queen is weak is seeing honey and nectar in-between brood cells, rather than in an arc raised over a central brood cluster. Dave demonstrated a slide of a spotty pattern from package bees: he kept an eye on it for a month before deciding to re-queen.

Let the bees build their own foundation? Dave has been switching out plastic foundation and letting them build their own comb. Some studies have suggested that the cells bees build for themselves are marginally smaller than commercial foundation, leaving less room for varroa mites to lay eggs. [More on this next month, when Mike Helms shows results of his foundationless beekeeping experiment.]

Re-queening in fall? The next slide he displayed showed a little better pattern with more capped brood, but still a few too many holes for Dave's liking. He noted that if brood patterns look spotty in late summer, that's not good: a survivable colony needs a lot of bees going into wintertime. Dave has heard that many beekeepers don't re-queen in fall, but in Dave's opinion, fall actually is a good time: a younger, more vigorous queen "will come out like gangbusters" in spring.

Numbers of bees & winter food stores: Norm asked whether it's possible to go into winter with too many bees for the available stores to support: Dave said it is. He looks for 100 to 120 pounds weight in his hive boxes, and what he does with those that haven't hit that weight is condense them. Dave noted that many beekeepers choose to merge hives, but he'd rather condense the hive to one deep body than "waste a queen." Another question posed was whether

a dearth of nectar in late summer wouldn't naturally shrink a colony? Yes, Dave said, and that's a reason not to move too quickly to re-queening: rather, take the time needed to evaluate. Is your queen "taking a break"? Sometimes they do that.

Does your queen have sufficient brood box room to lay well? Another thing to look for is whether your queen actually has enough room in the brood box to lay. Dave is looking for a solid brood pattern side to side, with a nice honey arch on top: the "football pattern" is not enough, in Dave's view.

(Below, an example of spotty brood pattern shot at our Sept 7 Fall Management Workshop:)



Think your hive is queenless? Inspect! Mel Grigorich noted that in one of his hives, he saw plenty of honey, but no brood: does he have a queen? Dave said the only way to know is to inspect carefully to find her or ascertain that there's no queen in the hive.

LCBA Queen Rearing Project: Dave noted that one goal for our queen rearing group is to have enough queens to make available for late summer and early fall re-queening. Ideally, in the future, those we don't distribute can over-winter in nucs and then can be distributed in spring: then we have local queens adapted to our conditions, rather than be bound to get queens out of California. This year, Dave distributed quite a few queens and hopes for more next year from the WSU Caucasian-blend queen.

Candy Boards ~ A Winter Feeding Alternative: Tim Weible

LCBA Member Tim Weible explained how he became a candy board convert. Bees need carbohydrates, and he believes that for our long cold winters, a candy board is an excellent way to deliver them. They need protein too, but should have enough pollen stores to cover that need.

The Pros & Cons of Boardman Feeders: Tim became disenchanted with Boardman feeders: though they do show you how much feed your bees are consuming, on cold mornings, the Boardman, sitting outside the hive, has liquid too cold for bees to process. Also, Boardmans can attract robbing by other bees, yellow jackets, etc. Finally, Tim recommends against the entrance

space left by Boardmans, but noted that if you use them, you can neck down the opening with an entrance reducer.

Bucket Feeders are another way to deliver those carbohydrates, but Tim cautions that if you have brood in the hive, you must be sure to set up the bucket feeder so it doesn't dribble syrup down on your queen. Tim demonstrated a nuc in which the bucket feeder hole was off-centered to avoid dripping on brood frames in the center of the box.

How concentrated should a sugar/water mix be? Tim noted that the one to one mix, while it stimulates wax production, takes more work for bees to dry down; he uses a two to one sugar/water mix and likes to "stiffen it up" as much as he can, almost like a slurry, to make less work for the bees dehydrating the water you put in.

Division board & top feeders: On the plus side, division board feeders are inserted into the hive body, so the bees don't have to leave the hive for food. On the con side, that means you have to break into the hive itself to feed your bees, so that's no good in winter conditions. Tim points out that all these options have their pros and cons. For example, the top feeder (two-tank) style holds a lot more syrup, and bees go to the screen and feed: however, they can get under the floaters atop the syrup mixture and drown.

Candy boards: Among many advantages, Tim notes that using candy boards is simple – you pour hard candy in a top cover and place it on top of inner cover, same as with a top feeder, and heat naturally comes up. Also, the notched inner cover provides an emergency exit for bees, as well as the option to come in on top and not crawl up through frames (less wear and tear on bees). The candy board rests on top of that inner cover. Norm noted that the telescoping top cover doesn't come down all the way over the candy board: Tim says that only becomes a problem if rain hits the sides, and that the bees will propolize any gap anyway.

To Tim, the greatest advantage of a candy board is that you don't have to invade the hive during cold conditions to check whether the food's been taken and to replace it: it should last a season, though that will depend somewhat on weather and forage conditions prior to winter. Further, the candy board is hard candy, so there is no moisture for bees to spend extra energy dehydrating. Tim notes that's why our Mentorship Coordinator, Gary Stelzner, likes the screened bottom board: by providing ventilation, it minimizes moisture, which can be a killer in our soggy climate.

Constructing a Candy Board: Tim uses plywood one by twos, cut to the exact measurement of the hive, and staple, then glues them. He urges getting good plywood to avoid warping and distortion that can affect your bee space. He also recommends making it at least an inch and a half thick because you need room not only for the candy, but also bee space. Heat will come up into the candy, but that won't affect the integrity of the candy board unless you mix it wrong (see below).

Anchoring the Candy: Tim uses one-and-a-half-inch narrow crown steel 16 gauge staples: he puts the porcupine quills of the staples through from the top, which helps to anchor the hard candy. He used to use roofing nails, but they would fall out. Tim displayed good and bad examples of candy boards. He noted that he's often asked why there is no notch in the candy board container – it is not needed because it goes on top of the inner cover. The bees go through the inner cover and can access candy and feed, and they still get ventilation. However, Tim found that cutting notches in the candy board affects its structure and promotes cracks. You

must make sure you glue it, and he uses waterproof bulletproof glue so that the hot liquid of candy mix won't seep out when it is poured in.

Making the Sugar/Water Slurry for Your Candy Board: A good mixture will yield a hard, solid surface with no give. It takes all afternoon to set. To make it, bring 2.5 cups of water to a boil. Once the water boils, mix in 5 pounds of sugar: you can scale your proportions using a 2:1 sugar : water mix. Bring the mixture to 250 degrees Fahrenheit and check it with a candy thermometer. Tim suggests duck-taping the thermometer to a spatula to minimize risks of burning yourself. Be sure to whip it so it doesn't thicken too much before you pour it. Debbie cooks on an industrial kitchen stove: if you cook the mix for too long, that takes out too much water, and you won't have an effective mix. If the mix is not effective, you can correct it by adding a little water.

Pouring the Mixture Into the Candy Board: Have your sugar board ready to go, and oven mitts, too, because it's going to be hot. Once you hit 250 degrees, pour in the mix right away, stir immediately, and don't let it scorch. Do it fast: that gives a better mix. It will pour like a runny cake mix, but also like lava – so you need a second person with that spatula spreading the mix as it enters the board. This must be done right away because the mix will start setting fast. There's no second chance. If you screw it up the first time, break the candy up with hammer, melt it, and try again. Tim was asked what happens to the cooking pot: he noted that the mix makes a sugar ring that you can just chip off since it's just sugar. Kevin asked if Tim had ever tried apple cider vinegar in the mix to combat mold: Tim said it isn't needed.

What Kind of Sugar Is Best? Tim was asked why not use sugar straight: he says that sometimes you'll find a lot of that on the outside of your hive, because the bees will think it's garbage and haul it out! It's very important to grind the sugar finely, Dave noted, or to use Baker's or Drivert sugar: high quality, low corn starch content.

Candy Board Timing: Tim puts candy boards on around November, certainly by December 1. Asked whether he needs to give them another one later in the season, he said rarely: they don't eat it all in just a couple months. Asked whether he checks his hives in winter, he said that he opens them up very quickly, just to be sure they have food.

Demonstrating the Candy Board: Tim passed around a candy board ready for a candy mix to be poured in so that we could see the staples sticking out. He showed a bad one, with the sugar rough, uneven, and granular. He showed another bad one that was dropped, spraying chunks all over. Tim noted that they will eat it anyway because they want the carbohydrates. Asked why he criss-crosses the staples, Tim noted that doing so makes a better structure to anchor the candy. Asked how many inches tall the candy can go, Tim said as high as the board, but you don't really want to make it that high – if you do, they'll build burr comb to it, whereas what you want them to do is eat it. Debbie had made a candy board on meeting day that Tim proclaimed perfect – it showed a lovely glaze of ivory-colored hardened candy mix.



Above, a sample candy board: photo from CoonHollowFarms.com

What If You Don't Want to Make Your Own? Tim noted that for those who don't want to make their own, he sells candy boards at the Honey Hut for \$21.95: for LCBA members, it's discounted to \$20.

Fall Management Issues: Norm Switzler

After our break, President Norm started the discussion, agreeing with Tim that you don't want to get into your hives in the coldest part of winter: they should not need anything that isn't already in the hive. Norm emphasized that fall inspections are an important time to examine brood patterns and noted that Dave's comparative analysis of pictures was helpful. Norm commented that "Dave is picky with high standards – if your brood pattern meets his standard, your bees are probably in good shape."

Fall Feeding: For food supplies, bees should be in good shape this year: we had an unusually good summer. It's rare not to have it rain twice a week. If you're going to feed, be sure to check in early fall to see if your bees need more supplies: you don't want to go in when it is too cold and chill your bees. How to assess your hives if you cannot really lift two full brood boxes to see if they actually weigh the recommended 120 pounds? Norm notes that it can be more feasible to lean against them and assess their weight that way. Some beekeepers are already feeding their bees. If you choose to feed but don't want bees to draw comb, use a 2 to 1 sugar to water mixture; however, if you do want them to draw more comb, use a 1 to 1 mix, since it will stimulate wax production and comb construction. Of course, you don't want them to go into winter with lots of comb, but no food.

Yellow Jackets, Hornets, & Wasps: Norm noted that many beekeepers he's spoken with are saying this is the worst year they've ever seen for honey bee predators. Yellow jacket traps can be helpful; a home-made trap option is to bait a used-up regular commercial yellow jacket trap with pulp of orange juice, add a little restaurant package of sugar, and put the mix in the bottom of a used-up regular commercial yellow jacket trap. Norm was asked what the yellow jacket situation is on the east side of the Cascades: he answered that all the predators are there too -

wasps, yellow jackets, and bald faced hornets – making beekeeping there complicated. Once the nectar is gone, yellow jackets will hover at the hive entrance and go for drones. Bald faced hornets will hover above hive, plunge down to grab foragers, and fly off with them.

Medication: We focused on medication questions at our August meeting, as well as our Sept 7 fall management workshop. Norm reiterated that he is not a proponent of treatment: his goal is to breed stronger bees. Is treating your bees nurturing them, or babysitting them? If you manage well and your bees have had good forage, they should be strong enough to fight off viruses and pests. This is a time when you can add supplements or treat, though, Norm noted, if you are a purist, if you do treat, you'll want to do so as naturally as possible. Some like to use essential oils; Norm asked Tim if he adds anything like these to his candy boards, and Tim said that he adds Honey-b-Healthy.

The perennial debate: treat to save your hives, or let the strong survive to breed? Gary sees the treatment question differently: he believes that you need to save colonies if you can. Norm noted that this is where individualized beekeeping comes in – each beekeeper must choose for him or herself. Susanne commented that first one should use sticky boards to diagnose whether or not you have a mite issue, then make a decision about treatment based on that knowledge, rather than treat to be on the safe side, thus risking increased mite resistance to treatments. Dave added that Seeley and others emphasize survivor genetics: some bees are resistant to mites, and those are the ones you want to propagate. Kevin noted that as beekeepers, you must realize that if you don't medicate, you will lose some colonies, so make your decision with your eyes open. Norm reflected that this is the perennial debate. He added that MAQS smell horrific, not at all what he wants to put into his hives; Gary countered that if you have a good strong hive that has a heavy mite load at this time of year, why not treat it and save it? Knocking down mites by 70 or 80 percent gives the bees a better shot at over-wintering. Norm acknowledged that mite population is rising now, as bees' population is falling.

Powdered Sugar to Treat for Varroa Mites: Rich Dallaire asked about using powdered sugar as treatment. Norm commented that this is a more natural treatment. You can put powdered pure cane sugar in a sifter and drizzle it down, then brush it across the frame tops: it clumps on mites' claws so that they can't hold onto bees. However, this only affects phoretic ("hitchhiker") mites, whereas MAQS kill mites in the brood. Norm noted that if you are going to treat, one way to prevent mites' building up resistance is to rotate between multiple forms of treatment: if you treat with same thing all the time, you will surely help strengthen resistant mites. However, he said, if you are starting out, you may want to treat to feel safer, and then, as you get more experience, decide whether it is the approach you want to pursue.

Nosema Treatment: Gary noted that Nosema treatment is worth consideration at this time of year. Nosema spores will build up over winter. If you see spotting on outside of hive, think about fumagillen. Almost all bees have Nosema to some degree, Norm noted, and you can identify it under microscope, as we showed at our August meeting. Gary pointed out that WSU says not to treat indiscriminately: rather, test and treat if needed. However, Gary gives fumagillen prophylactically. Susanne noted that a new study has shown that when bees are treated with fumagillen, the Nosema spore count rebounds to be significantly heavier than that of hives that were not treated at all: the study suggests reexamination of fumagillen dosage (for the study, see the Nosema subpage of "Bees in the News" on our website or our September newsletter).

It's Tough Being a Drone: Question: drones get kicked out at this time of the year, so should we expect to see a ruckus of bees when that happens? No, Norm answered: usually a few workers will just drag the drones out after several days of weakening them by not feeding them. Dave noted that if you're seeing a ruckus, it's likely robbing. Nancy asked about the pros and cons of switching brood boxes (top to bottom): Norm said he would not do it at this time of year, as it is very disruptive to the bees: he did it once, and it didn't make a difference in survival. You don't want them in the top in cold weather. He leaves box reversal for spring, after bees have worked their way up over their food stores from bottom to top, their natural action, eating their way up. They'll leave a virtually empty bottom box, and then you can remove that or swap it with the top box to encourage the spring bees to build up.

Using Cedar Shavings to Reduce Moisture: Norm noted that Kevin and Grant put a screened frame on top of their brood boxes, then fill a bag with dried cedar shavings and chips and place it in this frame to absorb moisture coming up through hive. Cedar may have some anti-pest aid. Kevin noted that this method should not be used with a candy board. One advantage of his method, Kevin said, is that if you do a quick hive inspection with screen there, you don't get stung. It does render the escape hole of inner cover moot because bees can't get through the screen in the top frame beneath inner cover. However, Kevin and Grant had success in reducing moisture with the cedar chips. Norm noted that you can lift the telescoping cover and look inside: is it dripping with water? Is mold residue building up? If yes to either question, you have too much moisture in the hive and need to dry it out: the cedar shaving method is a good way to do that.

A Better Boardman Feeder: Kent Yates

How Boardmans Work: LCBA member Kent Yates shared his inventive upgrade of the classic Boardman feeder, used for feeding bees either water or sugar/water mix. For those unfamiliar, Kent displayed a Boardman feeder and explained that is an upended jar set in a wooden stand that sits on the bottom board threshold, its lip tucking neatly into the hive body so that bees can drink water or syrup without leaving the hive, great for winter conditions. It has holes in the top metal cover through which the fluid drips.

Pitfalls of the Standard Boardman: Kent started with Boardmans a year ago and had some frustration with them because rust develops around the holes after about a week: the lids are iron, painted so they won't rust, but when holes are punched through, rust develops. He held up an example with big red rusty holes. As rust enlarges the holds, water drips rapidly through. Further, as the Boardman sits in the sun, the sun shines through glass and acts like a lens, heating up the water, which then is forced even faster through the holes.

Finding the Fix: After diagnosing these problems, Kent looked online for a stainless steel lid that wouldn't rust: he couldn't find one. Plastic ones don't fit as well. Finally, he found Tatler Co.: you can get these at Yard Birds. Using them, you can make a lid to replace the metal lids on your Boardman Ball Jar. Get a #60 wire gage drill, and using a small drill bit, Kent drilled in about 30 holes. This solved all the problems: his new Boardmans never rust, and the moisture problem is managed.

Preventing warping in the Boardman's wooden base: Tim sells plastic Boardmans at the Honey Hut, Kent noted, and he is looking forward to trying them, since "the wooden ones are cheap in more ways than one": when water gets in, through capillary action, it warps the wood. To fix that, Kent noted that you can use a heat gun to try to dry out the wooden board – you can

get heat guns at Harbor Freight for \$25 bucks. You lay a little piece of foundation wax inside the wooden base, heat it to coat the base, and it will stop water from leaching into the interior of the wood.

A white cover for your Boardman will solve the drips-too-fast problem: Norm asked about Kent's design: does it mitigate the problems of sun heating the water so that it drips faster? Kent said yes, if the holes are small, the faster dripping will be reduced, but there will still be heating issues from the sun, so what Kent does is take a white plastic yogurt container and puts it over the top of the Boardman, like a hat. Norm noted that Mike Helms uses Styrofoam cups – anything white that reflects sunlight will solve the problem.

Heat Guns & Propolis: When trying to get propolis off the top of a hive body, where it can make such a mess just where frames are resting, Kent recommends putting the hive body on its side, shooting a heat gun on it, and then you can take off the propolis easily with a putty knife.

September Business Meeting Notes

Our Monthly Raffle netted about \$70 for our education programs. Thanks to all our raffle donors! Among other prizes, an “Office of the Queen” sign went home with Gillian Davis. Norm won a honeycomb-style silicone pot holder. Debbie Slemp won the “mystery present” of photos of foundationless beekeeping. Gordon Bellevue won a quart of honey. Eggs went home to Glenoma with Richard Kain, and Tom Christiansen won a plant. Your scribe missed several of the other prizes, though (sorry). If you have something you'd like to share at our October raffle, bring it on down on the 9th!

Upcoming Events are listed above: at the meeting, we noted that **our Honey Spinning has been moved to October 12 (not Sept 28). Some things to keep in mind about our honey spinning:** If you have equipment – an extractor, uncapping tank, strainers, hot uncapping knives, or scrapers – please consider bringing them! If you're planning to bring supers to spin, please only 2 supers so everyone gets a turn at an extractor, and please bring your own buckets (bring a second bucket if you want your wax cappings). Treasurer Jon Wade noted that if you want food grade buckets from bakeries, etc., it's best to get them now, clean them, and air them out so that you get rid of residual odors that could flavor your honey. Don't have honey to spin this year, but want to see how it works? Please, come on down to see – we'd love to have you! We'll have refreshments and are looking forward to another great spinning party.

Fall Management Workshops: Norm gave a brief report on the Sept 7 fall management mentor workshop at Gary's apiary and noted that the pictures are up on our website under the Photo Gallery link. About 25 attended. We started with a discussion of over-wintering and treatment issues, then went out to the hives, inspected them, and inserted Mite-Away Quick Strips. For details, photos, and a narrative of topics covered, please visit the Photo Gallery link on our website and click on Sept 7 Fall Management Workshop. Susanne thanked Gary for hosting so many of our mentorship workshops and commented that the hands-on experience provides invaluable education that even books can't provide. Members gave Gary a round of applause for his work this past year as our Mentorship Coordinator. We also noted that next year, we'd like to encourage our newer beekeepers to host workshops and get the benefit of help inspecting their own bees.

Post-meeting note: pictures from the Randle portion of the September 14 workshops are now up under Photo Gallery, too. Our Randle and Packwood workshops were a nice reunion of our March Morton Apprentice Beekeeping course and were also attended by about 25 beekeepers.



Above left: at our Sept 7 workshop, Dahlia examines two yellow jackets, stuck together after stinging her glove; right, Norm holds up a frame for attendees of our Sept 14 workshop in Randle to inspect (photo at right courtesy of Tomme Trikosko)

Honey Contests: We distributed prize certificates to winners of the assorted honey contests at the Southwest Washington Fair. For details on the contests, see our September newsletter. Nice bright honey-colored certificates went to Kevin Reichert & Grant Inmon, Gary Stelzner, Dave Gaston, Gary & Judy Kalich, and Deanna Schlumpf. Susanne has certificates for Sharette and Alesha Giese, Ben Moe, Guy Priest, Sarah Roebas, Sherry Underhill & Randy Duncan; they'll be at the next meeting or winners can contact Susanne to arrange pickup.

LCBA Elections: Under the bylaws change adopted last year, LCBA elections now take place at our December monthly meeting; those elected at that meeting take office in January of the new year. In odd-numbered years, the President, Treasurer, and Membership Coordinator are up for election or re-election. President Norm is willing to run for a second two-year term, after which he would be term-limited out and would become Past President. Steve Howard has now served out the second year of Brandy DeMelt's term since Brandy had to step down: he is willing to run for a full term. (Only the President's term is subject to term limits.) Treasurer Jon Wade is willing to run for a second term unless someone else is interested in the job.

Post-meeting note: at our September 25 LCBA Board of Directors meeting, it was agreed that VP Dave Gaston and Secretary Susanne Weil will serve as nominating committee. If anyone is interested in running for one of the board positions noted above, please contact Dave (fauxelk@hotmail.com) or Susanne (Susanne.beekeeper@gmail.com or call 360 880 8130). There will also be a proposal for simplifying our dues structure brought forward at the business meeting portion of our October 9 monthly meeting.

LCBA Board Meetings: Board meetings are usually the 4th Wednesdays of the month from 6 to 8 p.m.. Members who wish to bring issues to the board are asked to contact Norm or Susanne several days prior to the meeting since the agendas tend to be large.

BEES IN THE NEWS

***Thanks to Kim & Jayson Bennett, Steve Howard, Steve Norton, Tomme Trikosko, Jon Wade,
& Kent Yates for sending stories!***

Invasive Asian Hornets Decimating Bees in France: May Be Moving Into Other Countries

(Below, the aggressive Asian Hornet ~ Getty Images)



After a “possible” sighting in south-eastern England, British beekeepers are keeping nervous watch for the “invasive and predatory” Asian hornet: *Vespa velutina nigrithorax* can be as much as four times bigger than a honey bee and packs a nasty sting. According to Britain’s Department for Food and Rural Affairs (DEFRA), “a handful of hornets can destroy an entire nest [of honey bees] in a couple of hours.” After initial alarms in 2010 and 2011, concern was renewed this summer, after a Frenchman was stung to death when he stumbled upon an Asian hornet nest.

The VITA-Europe August 2013 blog reports: “Asian hornet nests are hard to spot until the leaves fall from their nesting trees in autumn. But the damage they do is unmistakable: groups of five to 50 hornets hover in front of a hive, picking off single honeybees, decapitating them and stripping off their wings and legs before making off with the ‘meat ball’ to their nest to feed their young. As the attacks continue, the honeybee colony stops flying and has to consume its own stores, eventually weakening it to such a point that an invasion force of many hornets enters the hive to rob it out.” DEFRA points out that since these hornets are also scavengers, if they invade a diseased bee colony, they can carry infections to the next colony they attack. The hornets are versatile at adapting to varied weather and thrive in urban as well as rural conditions.

First spotted in 2005, the hornets are thought to have come to France in a 2004 Chinese pottery shipment. DEFRA warns that “there is a ‘high possibility’ the hornets could be introduced via imported plants, flowers, garden items such as pots or furniture, timber or freight containers.” According to VITA-Europe, “By 2007 apiaries around Bordeaux were suffering up to 70% colony losses. Since then [the Asian hornet] has been spreading at a rate of about 100km each year into neighbouring countries,” including Italy, and has been projected to reach southern England “at some point.” DEFRA asks British beekeepers to report any potential sighting to their BeeBase website. The UK National Bee Unit characterized the August 2013 sighting as credible but has not been able to confirm it through field inspections. Meanwhile, Vita has designed a trap specifically for Asian hornets and is planning a test for the French market soon.

Further reading: "Bee-killing Asian hornets could be heading to Britain," U.K. Metro, 5 Sep 2013, <http://metro.co.uk/2013/09/05/bee-killing-asian-hornets-could-be-heading-to-britain-3951268/>. For DEFRA's risk assessment report, visit the 2011 article "Danger! The bee-killing Asian hornet is set to invade Britain," The Guardian, 17 Oct 2011 and click on the link midway through: <http://www.theguardian.com/environment/2011/oct/17/asian-hornet-bee-killer-invasion>. For further details, including links to PDFs that compare/contrast Asian with other hornets, read "Asian Hornet alert," 23 Aug 2013, VITA Blog, at: <http://www.vita-europe.com/blog/asian-hornet-alert/>.



Above, Asian Hornet feeds on honey bee (Science Photo Library)

Two websites that list pesticides containing neonicotinoids:

Quite a few LCBA members have asked for up-to-date lists of garden pest-controlling chemicals that contain neonicotinoids. Many thanks to Jon Wade for sending these links! First, the Center for Food Safety's very clearly laid-out list:

http://www.centerforfoodsafety.org/files/pesticide_list_final_59620.pdf .

California's Department of Pesticide Regulation has a quite detailed list, as well:

<http://www.cdpr.ca.gov/docs/registration/reevaluation/chemicals/niclistofproducts.pdf> .

Britain's "government rejects science behind neonicotinoid ban," 10 Sept 2013, BBC News

Great Britain is distancing itself from the EU's ban on two neonicotinoids, saying that while the government accepts the ban, it "rejects the science behind the moratorium," arguing that an "increasing number of field-realistic studies have failed to find an effect of neonicotinoids on bees." The Environmental Audit Committee is trying to make the case for a U.K. ban, whereas the National Farmers Union welcomes the government's "balanced and sensible" position.

To read more, visit: <http://www.bbc.co.uk/news/science-environment-24024634>.

"Banned pesticides may be having wider environmental impacts," 13 June 2013 BBC News

A June 2013 report by a Sussex University professor in the Journal of Applied Ecology suggests that neonicotinoids accumulate in soil and water, endangering not only bees but other species (for abstract, visit: <http://onlinelibrary.wiley.com/doi/10.1111/1365-2664.12111/abstract>). Dr. Dave Goulson notes, "It seems to me that we may have been focussing far too much on bees and have missed the bigger picture."

Goulson discovered that "90% of the active ingredients in these chemicals go into the soil and leach into groundwater. They can accumulate in soil at concentrations far higher than those that kill bees and persist there for up to 10 years." Mayflies die from exposure to "less than one part per billion of imidacloprid" in water. In an eerie echo of *Silent Spring*, Goulson's study showed that bird species like partridges that eat neonic-coated seeds "spilled during sowing . . . need only eat a few grains to get a lethal dose."

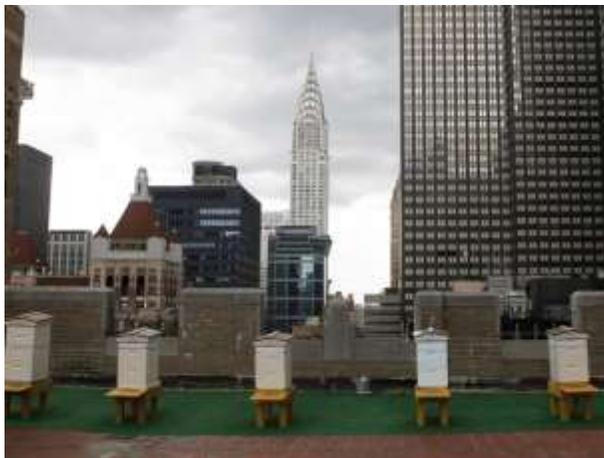
Goulson acknowledges that more testing is "urgently needed" to determine how significant a threat neonics pose to soil and waterways. He stated, "There is every reason to believe that lots of insects are exposed to them, and we really don't know what harm they might be doing; we should find out pretty damn quick if you ask me."

To read more, visit: <http://www.bbc.co.uk/news/science-environment-22893619>.

"Honeybees are sweet for skyscrapers: the increasingly imperiled insects are finding a new niche in urban life," 7 Sept 2013, Salon.com [originally published on Smithsonian.com].

This interesting feature explores the rise of urban beekeeping: not only do city dwellers want natural pollinators for rooftop gardens, but bees are increasingly sought by urban planners. "Green roofs" help nail down high LEED (Leadership in Energy and Environmental Design) ratings from the U.S. Green Building Council. Manhattan's Bank of America Tower soars 51 stories above the street and hosts two bee hives on its 6000 square foot roof. The bees helped BofA score a coveted platinum LEED rating.

Bees also serve as "security guards": one building in Manhattan found that thieves seeking lead from rooftops of historic buildings find an active hive a "powerful disincentive." Ironically, though, now thieves are going after the bees themselves: Brooklyn beekeepers have reported rising numbers of stolen hives, hard to fight: "until someone invents a branding iron small enough for a bee, there's no way to prove that your queen bee was stolen." Other challenges of urban beekeeping: providing sufficient forage.



Above, Manhattan rooftop bees with Chrysler Building in background ~ photo, Salon.com

At the University of Buffalo, architecture students designed "Elevator B, . . . a 22-ft-tall steel tower clad in hexagonal panels inspired by the natural honeycomb structure of beehives," just for bees. The bees call a "cypress, glass-bottomed box suspended near the top" of Elevator B home. People can look through the

bottom of this observation hive to see how bees do business.” The article goes on to describe how 19th and 20th century European architects like Gaudi and Mies incorporated elements of beehives into their designs in hope of inspiring people to emulate honey bees’ industrious harmony.

To read the original story, visit:

http://www.salon.com/2013/09/07/why_are_honeybees_and_skyscrapers_sweet_for_each_other_partner/?source=newsletter.

“A Different Kind of Beekeeping Takes Flight,” 17 Feb 2012, New York Times

This 2012 article explores the potential of the stingless “meloponine” honey bees of Central and South America as pollinators and food/medicinal product sources. More than 600 species of stingless bees reside in tropical climates. Their lifestyle – colony-based, with queens, workers, and honey production – resembles *Apis mellifera*’s. The main differences: “stingless bees are pickier than their European counterparts about what flowers they visit, making them important for keeping certain tropical forests healthy.” Since they are stingless, many keep them as pets.

Perhaps the biggest difference: stingless bees are less prolific in producing their moisture-heavy honey – so moist it’s drinkable – but each stingless bee species produces a distinctly different honey. Stephen Buchmann, a University of Arizona professor who researches native bees, says that many of their honeys have “a delightful floral aftertaste” and that “the best-tasting honey comes from the royal lady bee, a stingless species that the Maya people of Mexico’s Yucatán Peninsula have cultivated for 2,000 years.”

Medicinal qualities make stingless bee honey much sought after. Native populations have long taken advantage of its antibiotic properties to treat wounds, but the Journal of Experimental Pharmacology has now published a study that compared stingless bee honey to commercial antibiotics and found it slightly better for treating guinea pig eye infections. Some studies have found hints that it might even deter cancer, though more research is needed.

Stingless beekeeping – called “meliponiculture” – is on the rise in Brazil, Venezuela, and other Latin American nations, where Mayan art documents how ancient the practice is. Ghana now has an “International Stingless Bee Center.” Japanese greenhouses value stingless bees for their excellent pollination – and since the bees can’t survive outside greenhouses in Japan’s climate, there is no risk of interference with indigenous bee populations, as there is with bumblebees.

To read more, visit: http://green.blogs.nytimes.com/2012/02/17/a-different-kind-of-beekeeping-takes-flight/?_r=2&.

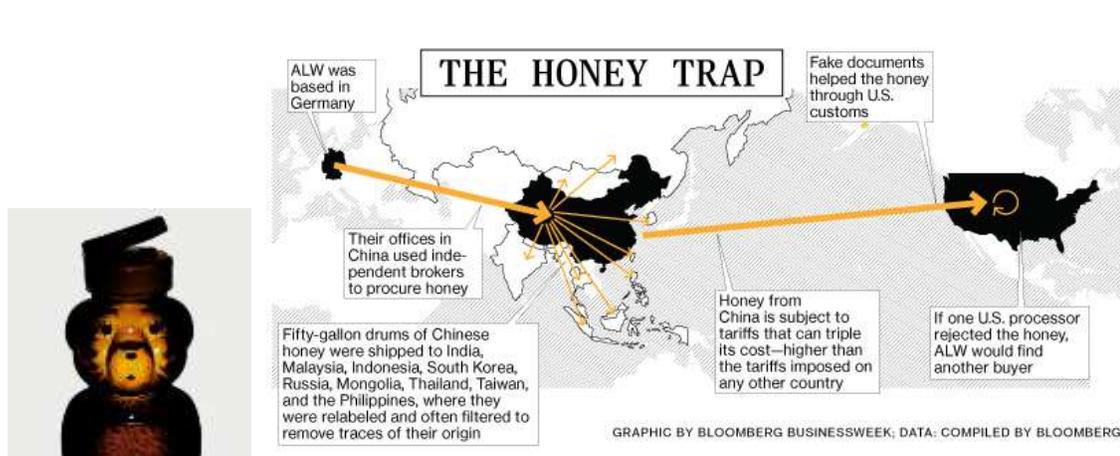
“The Honey Launderers: Uncovering the Largest Food Fraud in U.S. History,” 19 Sept 2013, Bloomberg BusinessWeek

If you’re a fan of intrigue, you’ll want to read the complete story [URL below]: it boasts more twists than anything in the *Mission: Impossible* franchise. The context: Americans’ appetite for 400 million pounds of honey per year creates motive for honey laundering, and lax regulation provides opportunity. In 2001, the U.S. levied import duties on Chinese honey, tripling its price: not to be deterred, exporters started to move Chinese honey through other countries.

What’s wrong with exported Chinese honey? According to this piece, it tends to be “harvested early and dried by machine” – not by bees. This meant bees could produce more honey, but the artificial drying left “an odor and taste similar to sauerkraut.” To make this “honey” taste sweeter, exporters cut it with molasses and fructose syrup: ALW’s “network of brokers from China and Taiwan” filtered the honey to remove its pollen signature, then shipped it “from China to India, Malaysia, Indonesia, Russia, South

Korea, Mongolia, Thailand, Taiwan, and the Philippines.” Some of this honey was tainted by foulbrood antibiotic chloramphenicol, outlawed in the U.S.

Believe it or not, Interpol’s “Most Wanted List” includes honey launderers: they landed there after a “rare inspection” by U.S. custom agents smelled a rat in honey laundering company ALW’s “Korean White” and “Polish Light Amber,” Chinese in origin. In September 2010, 10 ALW executives were indicted for their role in an “\$80 million food fraud, the largest in U.S. history,” but most evaded prosecution by living in Germany.



Above left, honey bear by Jamie Cheung; at right, “Honey Trap” map by Bloomberg.com

By 2011, Homeland Security got into the game that agents called “Project Honeygate,” planting moles at ALW’s “garbage can” U.S. food company supplier, Honey Holding. By February of 2013, they had amassed enough evidence to prosecute Honey Holding for tariff evasion, to the tune of \$180 million. After pleading guilty, Honey Holding began paying its fine (wait for it): \$1 million, in installments.

To read more, visit: <http://www.businessweek.com/articles/2013-09-19/how-germany-s-alw-got-busted-for-the-largest-food-fraud-in-u-dot-s-dot-history#p1>.

“Swarm of bees delays Angels-Mariners game twice,” 23 Sept 2013, Associated Press

It wasn’t contested plays or lost balls that held up the Angels v. Mariners contest in Anaheim, CA on Sunday, Sept 22: a swarm of bees stopped play twice. First, during the 3rd inning, the bees infiltrated the right side of the field. With two runners on base, the Angels had to retreat as ground crews and volunteers “attempted to deter the swarm with a broom, a Gatorade cooler and a cardboard box.”

Then, a “dude just came out of the stands and said ‘It’s OK. I’m a beekeeper,’ Angels pitcher Wilson said. ‘It was like a ‘Seinfeld’ episode. Do you tip a bee guy? Throw him a 20?’”



Above, apiarist John Potom of Honey Pacifica & bees that held up baseball game (Associated Press)

The game started up again, but then, in the 4th inning, players “began swatting at more bees in the outfield,” with “fans . . . yelling: 'They're on the ground! They're on the ground!'" Calhoun said. "So I'm looking around and I see them swarming and stuff, and then I see a pile of bees on the ground — hundreds and hundreds of bees. There were bees everywhere." Finally, a fire extinguisher was deployed to disperse the bees so the game could proceed.

To read more, visit: <http://www.foxnews.com/sports/2013/09/23/swarm-bees-delays-angels-mariners-game-twice/?intcmp=latestnews>

ANNOUNCEMENTS & HELP WANTED

See Upcoming Events, above, for October Mentor Workshops & our October ~ November Apprentice Beekeeping class.

Available in LCBA's Library (ask Dave Gaston at a monthly meeting): Dewey Caron's Honey Bee Biology and Beekeeping ~ Expanded & Updated 2013 Edition: Dr. Dewey Caron, who's spoken on bee losses at LCBA meetings for the past several years, has donated a copy of his updated book to our library. It's been reviewed very positively in the October edition of *American Bee Journal* and the September issue of *Bee Culture*. LCBA member Peter Glover notes that this book is useful at all levels of beekeeping – he's used it in home beekeeping, to prepare for teaching in the Apprentice course, and as a student in our ongoing Journeyman class. Peter reports that the advantage of this new edition rests in its color photographs, which make it much easier to visualize what you're looking for as you inspect your bees – after all, it's not a black & white world. . . .

Want to put some bees on other folks' property in 2014? At the Fair, several people asked if they could host bees – they'd like the pollination for their gardens, but don't feel ready to do beekeeping themselves. If you have more hives than you know what to do with, please contact Susanne about these potential foster homes.

Looking for an extractor? Cindy & Mike Schaefer (friends of Chuck Wilson) are selling a two-frame hand crank model for \$100 (they report that "the model name is on it but so faded cannot read it). They can send a picture if you are interested, and they invite either emails or calls: rebel@toledotel.com or 360 864 8413.

Discovery Children's Museum would like an observation hive: can you help? If you have an observation hive to loan or donate to the Discovery Children's Museum in Chehalis, please contact Susanne. The Museum seeks help to attract children's interest to bees.

Kids' Page for LCBA Website – coming soon, we hope: Susanne is searching for age-appropriate videos, websites, texts, and of course illustrations to help children learn more about honey bees. If you know any great resources for children interested in bees, please let her know! Thanks to Terrie & Michaela Phillips for their contributions so far.

October Western Apicultural Society Newsletter: Visit http://groups.ucanr.org/WAS/WAS_Journal and 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.

October WSBA Newsletter: Pick up your copy from www.wasba.org: click on "Newsletters" under OUR SPONSORS on the lower right of the page. Then click "Current issue."

That's all for this month - take care, & bee happy!

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