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March 2014 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.

PACKAGE BEE ORDER INFORMATION

LCBA is coordinating package bee orders for club members through Olympia Beekeepers' Club.

To order, one must be current on membership dues.

When & Where:

Orders will be taken March 12, 6 to 7 p.m., during the hour prior to our March monthly meeting: an order table will be set up outside Washington Hall 103.

Ordering By Mail:

Members may also order by mail – as long as we receive the payment BEFORE March 12 so we can include your order with the rest of the group.

Order form:

Order form: attached to this newsletter's email & posted on our website under Upcoming Events.

If you mail your check, please send to Jon Wade, P.O. Box 1442, Chehalis, WA 98532. (Please do NOT write "LCBA Treasurer" on the envelope.)

Payments:

Checks preferred (made out to Lewis County Beekeepers' Association – no abbreviations, please); cash accepted; sorry, no credit cards or money orders.

Prices:

Bee package with queen – specify Carniolan or Italian queen - @$72.50.

- Extra queens – specify Carniolan or Italian - @$24.00
- Nucs (5 deep frames with an Italian queen) - @ $90.00
- Sorry, no refunds on 2013 or 2014 package boxes.

Package Bee Pickup Date:

TENTATIVE: Sat April 19 – Borst Park Master Gardeners' Demonstration Garden – Time TBA

Nuc Bee Pickup Date: TBA & probably after packages

- Questions? Contact Susanne (Susanne.beekeeper@gmail.com; 360 880 8130).

Thanks to LCBA Member Renzy Davenport for organizing details!

NEWS FLASH ~ LCBA IS ON FACEBOOK!

Yes, it's true….thanks to Membership Coordinator Tomme Trikosko, we have another web presence. If you are a Facebook Person, here's where to go:

https://www.facebook.com/LewisCountyBeekeepersAssociation?ref=hl

UPCOMING LCBA EVENTS:

March 1, 8, 15, 22, 29: LCBA/WSBA BEGINNING BEEKEEPING CLASS

When: Due to popular demand, we've added a morning class!
Morning Section, 9 a.m. to noon
Afternoon Section, 1 - 4 p.m.

Where: Old Credit Union Building, 156 N.W. Chehalis Avenue, Chehalis, WA 98532

Cost: $30 per individual /$45 per couple/family

Registration Process & Brochure: please fill out the registration form – the class brochure is attached to this newsletter – & send to LCBA Secretary Susanne Weil, PO Box 787, Onalaska WA 98570. Payment is by checks (made out to "Lewis County Beekeepers' Association" only – not "LCBA") or cash only – sorry, no plastic. Class size is limited, but first day enrollment is possible – first come, first served.

Course Description: This beginning course in the Washington State Beekeepers' Association's Master Beekeepers' Program builds core beekeeping skills. Topics include: **b**asic bee biology, equipment & how to set up your apiary, seasonal management processes, identifying & managing pests**,** treatment options & decisions, honey harvesting, & more. A great introduction for "newbees" or refresher for those getting back into beekeeping. Those who pass ten open-book, open-note quizzes earn the WSBA Apprentice certificate & are eligible to proceed to WSBA's Journeyman & Master Beekeeper courses.

Course Materials: WSBA's beginning beekeeping manual & LCBA's informational PowerPoints & demonstration materials supplement classes. Student questions are welcome!

Course Instructors: WSBA-certified instructors are board members of the Lewis County Beekeeping Association: LCBA President Norm Switzler, Secretary Susanne Weil, & Past Presidents, Peter Glover & Bob Harris.

Post-Course Support: free hands-on mentor workshops (see topics, listed below March monthly meeting); LCBA members can ask for an individual mentor, as well as get discounts on LCBA package/nuc bee orders.

Course Sponsors: Lewis County Beekeepers' Association**,** Washington State Beekeepers' Association (WSBA), and WSU - Lewis County Extension.

Questions? Contact LCBA Secretary Susanne Weil: susanne.beekeeper@gmail.com or call 360 880 8130.

March 8: "Bee Event & Screening of *More than Honey"* co-sponsored by Olympia Beekeepers & The Evergreen State College

When: 6 to 10 p.m.

Where: The Evergreen State College, Lecture Hall 01 & adjacent rotunda.

What: This community event will highlight honey bees and beekeeping, native pollinators, organic gardening & planting for pollinators. Student groups will transform the rotunda into bee art gallery. OBC will present "Pollinator Protector Award" to local businessman, show a documentary short on bee crisis by Evergreen film students, & conduct a Q & A with *More Than Honey* director Markus Imhoof from Berlin.

Tickets: available at Radiance & Traditions in Olympia, Gordon's Garden Center in Yelm & at the door.

March 9: LCBA Spring Management Workshop

When: 1 to 3 p.m.

Where: Winlock: for directions, email Susanne.beekeeper@gmail.com or call 360 880 8130

What: Gary Stelzner & Norm Switzler will lead this hand-on workshop on examining hives after over-wintering, reversing boxes, replacing foundation, & possibly doing splits. *This date is weather dependent – an email will go out the day before with an update. Please RSVP if you would like to attend. Fall back date: March 16, same times & place.*

March 12: Package / Nuc Bee Club Order Deadline – see section on orders, p. 2, for details.

March 12: LCBA Monthly Meeting

When: 7 – 9 p.m.; Social Time 6:30 to 7 – Come Talk Bees!
From 6 – 7, package bee orders will be taken. For details, see special section on bee orders following this upcoming events section.

Where: 103 Washington Hall, Centralia College

Topic: Zombie Fly Parasitism of Honey Bees ~ University of Washington Research

Speakers: Dr. Evan Sugden and his undergraduate research team – Ashley Powell, Hannah Dayley, & Fiona Kana – will share their work on how zombie flies are affecting honey bees in western Washington, plus information about UW's teaching apiary & ongoing Nosema research. For an overview of Dr. Sugden's "Science with Bees" UW class, see the November 2013 edition of *Bee Culture.* **Business Meeting:** Spring management Q&A.

Above left, zombie fly analyzed in OSU laboratory; at right, honey bee killed by zombie fly parasitism. Note brown, rice-grain-like pupae of the zombie flies; these flies inject eggs into bees' abdomens. (Images: OregonLive.com)

March 15: Orchard Mason Bee Seminar ~ Benefit for LCBA Youth Scholarship Program

When: 10 – 11 a.m.

Where: Honey Hut, Centralia BBQ Steak & Deli, 708 Harrison Ave, Centralia WA 98531

What: Learn about Washington's most popular native bee that is perfect for this this climate. Whether you are a hobbyist, residential or small farm owner, you can discover how to pollinate your own yards, flowerbeds, gardens and orchards. See how to get started with hands-on, actual learning aids, and your questions will be answered through examples on site.

Instructor: Tim Weible.

Registration Cost: $2 ~ *All registrations will be donated to benefit LCBA's Youth Scholarship Program.* Thanks to Tim for his support of our outreach to young beekeepers!

Questions? Call 360-736-1015.

Above, orchard mason bee (SproutingHealth.com)

April 1: WSDA Hive Registration Deadline

Register Your Hives with the Washington Department of Agriculture before April 1, 2014 to avoid late fees. *Hive registration fees benefit WSU's honey bee health research projects!* The 2014 form is available under the Upcoming Events link on our website and attached to this newsletter email.

April 9: LCBA Monthly Meeting

When: 7 – 9 p.m.; Social Time 6:30 to 7

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

Topics: Spring Management Issues; Hiving Packages: Making Splits;

"Bee Team" Swarm & Colony Removals ~ 2013 Adventures & 2014

Opportunities to Help Save Bees!

April 19: Probable Package Bee Pickup Date – Borst Park Master Gardeners' Demonstration Garden, Time 12:30 – 3:30 p.m.

May 14: LCBA Monthly Meeting

When: 7 – 9 p.m.; Social Time 6:30 to 7

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

Topics: Bees in the Garden & On the Farm: Protecting Pollinators from Pesticides & Plantings Beneficial for Bees

Bill Wamsley, Lewis County Noxious Weed Control Board Coordinator, will discuss how to protect pollinators when applying pesticides, herbicides, & fungicides, as well as issues related to invasive / noxious plants and weeds; native cover crops & shrubs beneficial to bees.

LCBA MONTHLY MEETING NOTES: FEBRUARY 12TH

Speaker: Wilma Sofranko

Kireeco: Kisii Rural Education and Empowerment Coalition

Building livelihoods and an industry: one farming family at a time

Map, Kenya Democracy Project; right, Marani Community beekeeping students hold hive parts

KiReeCo's Beginnings: Wilma Sofranko, one of LCBA's early members, went to Kenya in 2011 to help found KiReeCo [pronounced "ky-REE-ko"], the Kisii Rural Education and Empowerment Coalition and has lived there for two years. Kisii Province is in the northwest region of Kenya (the map above shows Kisii township, but gives a sense of where this is in relationship to surrounding nations). Three million people make up the Kisii tribe, called Kisiis, who live in the highlands, about 6-8000 feet above sea level. The region is verdant and fertile, with a high agricultural output. 2 years she's lived there. Wilma teaches organic farming, family

nutrition, soil and water conservation – and beekeeping. She works with a board of seven: each person has a region that they oversee. They help with translating, and Wilma does all the training. She can't speak Ekigusii: sometimes a great story is being told, she can tell, but she doesn't know what it is.

How KiReeCo Works: Wilma lives in an 11 x 15 office/living area at the St. Theresa's Orphans and Vulnerable Children's Centre, where KiReeCo's seed bank and garden are situated. Primary among the food sources that KiReeCo promotes is maize, an indigenous, weevil and drought resistant crop.The co-op also teaches humane animal husbandry and life skills, organic farming, and food production teaching. They focus on community service and community education. For the teens in particular, they emphasize job skills training – teens are motivated by money. Teens and children can help pitch into community education. Wilma noted that the kids love to wear their beekeeping outfits with hoods, and are "rabid fearless beekeepers" – utterly fearless with the aggressive African bees.

Why beekeeping? Beekeeping can supplement the Kisiis' subsistence farming livelihood. Most don't earn money, just grow food: "subsistence" means that they grow what they need to eat - or don't eat. Family plots are small, seldom more than two acres, and beekeeping can earn extra cash income. Primary school is free, but secondary school is not, so the supplemental income from selling honey and other bee products helps families get their children past an 8th grade education. A low cost school would charge $400 - 600 a year, beyond reach for most.

Above left, traditional hive box; right, traditional Kenyan top bar hive.

Bees and Beekeeping in Kisii – Advantages and Challenges: Kisiis have kept bees for many generations, building hives out of anything available. Wilma noted that Kisiian bees are healthy: there are lots of them, and swarms will take up residence in very basic hive boxes if you bait them. In the past, to get honey, Kisiis built fires under hives and drove bees out, then took the honey: one of KiReeCo's goals is to teach humane beekeeping. Another traditional method involves placing a clay water jug in a tree; Kenyan top bar hives are also used. Both methods use the same harvesting techniques – taking all the honey via cut comb.

The Kisii equatorial highlands have many natural advantages for beekeeping. There are few diseases and, amazingly, no Varroa mites. Bees are abundant and hardy. The region is blessed

with ample, year-round tree blossom fodder, such as papaya, avocado, caliandra, grevaria, mango, loquat, star fruit, among many other local flowering trees and shrubs. Maize, a major crop, is widespread – and full of pollen. Pesticides and herbicides are seldom used: multinationals are trying hard to sell their products to Kisii farmers, but farmers resist this, partly because they don't have the disposable cash needed, and they are embracing Wilma's organic approach. For generations, the high quality, light amber honey has been used in medicine by the Kisii people, contributing to its high demand. Wilma noted that farmers in the region are so eager to learn beekeeping that she has 500 in eight districts on waiting lists to take KiReeCo's beginners' class!

Along with those natural advantages go many challenges. Primary among obstacles the Kisiis face in becoming successful beekeepers is lack of education in effective/humane bee management and honey harvesting. They lack understanding of bee behavior and labor under the general perception that all insects are harmful. The aggressive nature of the African bees – Wilma characterized them as "downright hostile" – certainly contributes to this perception. Much of Wilma's work has been dispelling fears: for example, she has gotten farmers to pledge not to kill preying mantises. As of now, KiReeCo is their sole source of training, modeled on our Washington State Beekeepers' Association apprentice beekeeping curriculum. There is no book on beekeeping in Africa: in fact, there's a long list of 'no books on' in Africa, and beekeeping is on it.

Another challenge: small family plots have limited space. ½ acre to 2 acres is the average, and this means that aggressive bees may target the neighbor's black cow (remember, black is not bees' preferred aesthetic). They lack extraction services for Langstroth hives – few extractors are available, and service is costly. KiReeCo is planning a mobile extraction service to help. They lack marketing mechanisms to help smallholder farmers connect to customers, though KiReeCo's cooperative network is beginning to change this. So there are hurdles, but the Kisiian would-be beekeepers are ready to go over them to earn money to keep their children in school.

Above left, a Langstroth-style hive wedged in a tree after the traditional Kenyan top bar method; right, a KiReeCo beekeeping class in progress.

KiReeCo's First Cohort of Apprentice Beekeepers: There was no question of "African time" for KiReeCo's first cohort of 58 beekeeping students: they arrived early and stayed late, giving long but rewarding days for Wilma as trainer. The final exam had 20 questions plus a bonus

question: everyone earned 80 percent or better. Nine had to take the test orally because they can't read: the agricultural minister for Kisii Province read the 20 page handbook that Wilma adapted from the WSBA materials, as well as the exam, to them in Ekegusii, the regional language. The women who had materials read to them still earned 90 percent: they really learned the material since the prospect of helping their children and grandchildren attain a high school education really motivated them. The graduates have formed the Kisii Beekeepers' Association to help market their honey.

Wilma described four of the women from KiReeCo's first graduating beekeeping class, pictured below. First, Wilma profiled Agnes Ngare, 40, "the second wife in a polygamous family. She has 4 children of her own and supports 2 other orphans: one in secondary school and one girl, a school drop-out, with 2 small children of her own." Next, Wilma told us of Yuvilansia Kemunto Migosi, a 60 year old widow: "she has 6 children of her own and has 3 relatives and an additional child living in the household. She has 11 grandchildren." Printina Kemunto, 40, is a single mother who, with her two children, lives with her parents. Finally, "Francesca Moraa is 60 years old and along with her husband, supports 7 children and 14 grandchildren. Francesca was one of the beekeeping students who took their certification test orally, as she never had the chance to go to school to learn how to read. Francesca got 95% on her oral test." One member commented on how well dressed they were: Wilma said that they take these events seriously and dress for them.

Above left, the KiReeCo Beekeeping Association; the four women at right hope to help their families by selling honey (see above for their stories).

Financing Through Regional Partnerships: Wilma has engineered a partnership with Kenya Commercial Bank: the bank saw KiReeCo helping and wanted to get involved. They started a family savings program with Kenya Commercial Bank: those scoring 100% on their tests were given 100 shillings to open their savings accounts. 80 shillings roughly equals one dollar: to put KCB's contribution in perspective, an average day laborer in Kisii province makes 100 to 200 shillings per day – a skilled person like a carpenter or mason might earn more.

Now that the beekeepers are trained, KiReeCo has begun a micro-finance loan program to help set them up with the basic unit of a Langstroth hive, working with a local carpenter. They are using supers as brood boxes: since the honey season runs year round, they don't need that much brood, and the hives are being designed to specifications. KiReeCo's loan program is helping them get better quality materials made to spec; they can pay back later in honey, since they have the bees and forage – everything they need except the hive, extractor, and marketing. KiReeCo will do the extracting and marketing, and the first extraction will pay for their initial hives, as well as more hives. It is a sustainable program. They are also planning Kisii Organics: honey product development and bottling in partnership with the Kenya Industrial Research and Development Institute. This is the business arm: nonprofits cannot make any money, so must partner with someone else to sell the honey. KIRDI is a government entity that works well with KiReeCo.

Kisii Beekeepers – Learning Hive Building: The beekeepers are also learning how to build hives – painting, wiring, etc. When she goes back, they will start a wood shop and do the building with carpenters mentoring. Norm asked whether there is electric power or all manual: Wilma said that there is some access to electricity, but even when there is, they still may not know how to use the electric tools. Her carpenter had a table saw, but still was planing by hand. Wilma shipped equipment to build her house there. Nairobi is 5 hours away by bus, and everything there is expensive - $60 for a 9 inch brood box with a fixed bottom, queen excluder, and honey super and top - "so going to buy a beehive is not happening." One goal is bringing skills and resources to the Kisiis.

Wilma was asked whether there are any wood mills: there are not. She said, "you start with 'I want to buy that tree,' then hire a person with a chainsaw, cut it down, cut rough boards, and start from scratch": challenging, but exciting. Brevaria, a local tree with great blooms for bees, is a hard wood, and that's what they use. One problem is that they tend to build things - even furniture - out of green wood. To build hives, one needs seasoned wood: they are learning this. They are open to learning. Wilma noted that here in U.S. we are blessed, or maybe inundated, with sources of information, but in Kisii, little is available. Asked whether she runs into trust issues, Wilma commented that the Kisiis have seen much exploitation, but they trust her, as they have seen that she works with them truthfully.

Above left, KiReeCo`s Beekeeping Demonstration and Education program at St. Theresa`s OVC: student beekeepers Ignatius, Dennis, Bosire, and Amos; right, beekeeping students Jacob and Ignatius learning carpentry skills.

Looking ahead for 2014: KiReeCo plans to extend the 3 day training to 4 communities: there will be approximately 300 farmers. They will have a demonstration apiary of 5 hives which will also generate income for the St Theresa school, helping keep kids enrolled. They are also planning to start an apiary and demonstration garden at Kisii town. It is in the bush, the interior, and in many places they have never seen a white person. They will have a big plot at a research institute to expand KiReeCo's seed bank, garden, and beehives, as well. There are issues: for one, hive placement with African bees is key. Wilma commented that she is "learning a lot about beekeeping with these independent bees - I don't want to call them hostile."

Dangers? Norm asked whether there are issues with robbery or assault, since they are so remote. Of hives, Wilma said no: beehives are safe because people are petrified of these 'independent' bees. This means that if you have a colony, you are safe, because "the bees are like watchdogs." In Africa generally, and in Kisii as well, there are two sets of law: the law of the land, and then there is customary law. Wilma noted that for several thousand years, people have lived a certain way, and each tribe has own norms, even languages. Western thought was brought to them and sometimes suggested, sometimes imposed, but indigenous culture prevails. On the one hand, they have embraced Christianity, but belief systems like animism – the idea that in everything, there is a spirit: in trees, animals, rocks, the earth – run concurrent. When you are living and working in remote places, it is good to be aware of the norm. Wilma feels safe because everyone knows her: she is "Madam Wilma" or "Madam Organic Farmer," and "Madam" is a title of respect. She feels safe not only because she travels everywhere with her Belgian Malinois, but everyone knows her and accepts her as a Kisii.

Honey Harvest Yield: One member asked about honey yield. Wilma said that they can get 18 liters of honey from one super if frames are full, and that they harvest three or four times per year, reliably, given the favorable climate. She could not bring us honey because she could not bring liquids back on the plane. They did not stack supers till they were taught to stack. Extraction is a challenge with the Langstroth hives, but the bottleneck will be broken as they get their extractor, which is a hand-crank: they have labor, but not so much electricity. A liter of honey will sell, wholesale, for 500 shillings, so it is a decent price: usually a wife will work for 200 shillings a day in the field and then do four hours of her own work at night. Having the beehive is huge and will transform this region: Wilma said, "this beekeeping initiative is seriously addressing poverty in a systemic way - it's astonishing what we can do."

Selling KiReeCo Honey Abroad? Asked if KiReeCo plans to keep sales of bees' products domestic, Wilma said no: there is a fair trade shop in the Hamptons, and they trade with them via their partner group. Wilma is working on extending this to the west coast through free market networks. On her blog, you can see where each farmer is. They ultimately plan to sell honey by the container.

Norm asked what do they do with comb that has no honey: do they utilize it? Wilma says they will chew on comb like gum, especially if it has leftover honey in it. They just use their hands and squeeze the honey out. Are they learning benefits of wax? Wilma said yes: they are teaching its uses and will develop wax products once KiReeCo's honey operation is underway, and then they will market it as clean wax gotten humanely.

Other Differences from Western Beekeeping? Wilma said that foundation is an expensive item, so they do not buy full sheets: instead, they fix strips to tops of frames, just an inch, then run wire and drill holes in the frames. Bees build comb on it. These African bees are small and dark,

and Wilma said, "if you think Africanized bees are the problem, these are the real deal, the originals." Wilma was asked how, on one to two acre plots, people deal with such aggressive bees in close proximity to homes and neighbors, and has she considered bringing in less aggressive bees? Wilma answered that if you leave the bees alone during the day, they won't bother anyone, just like bees here: they don't bother you unless you start poking around and getting into their space, so this is part of the education process. They inspect the bees at dusk, since the bees have a different demeanor at night. They stay close because they can't see to travel at night. That is the only way they can manage the bees. It may seem counterintuitive to manage them at night, but it works, and climate/temperature help too. Apiary placement is an issue, too: each hive needs to be individualized. You cannot keep them all in a row, or you get a ripple effect: when one gets upset, all get upset, so if you have eight to ten acres, you can stagger the hives, placing them at different elevations.

Swarms? If you build a hive and bait it, swarms will come: just rub beeswax on inside walls and frames, and within two days, a swarm will come. There's no shortage of bees. In KiReeCo, they don't lose bees except to swarms.

Above left, Wilma Sofranko of KiReeCo takes questions during the break following her talk; at right, the path to Wilma's living/office space at St. Theresa's OVC Secondary School, with the KiReeCo seed bank garden in the background.

KiReeCo's Relationship with the Kenyan Government: Wilma said that the regional government loves KiReeCo, which is doing work the government cannot do. Wilma was asked if they have their own version of the FDA: they have the Kenya Bureau of Standards. A few beekeepers have submitted reports and got glowing approval. KiReeCo will be part of establishing organic farming: in the big picture, Kisiis must agree to be organic farmers to participate in KiReeCo, which then helps them, farmer by farmer, to change over to organic practices. Non-organic farmers in the area do use pesticides, but they are hard to afford, so less pesticides are used than one would think. Multinationals are not happy that Kisii farmers save own seeds: this means they can't sell them seeds. Hybrid seeds are sometimes used, but when they have been, yields went down: this happened with maize. KiReeCo is providing seed stock, working with farmers to revitalize the entire region.

Living Conditions: How does Wilma find the living conditions and food? Wilma reported that she boils all water to prevent water-borne diseases, and she can eat what she wants in terms of dry goods – she can buy spaghetti and yogurt at Kisii Town, but there is no refrigeration. People pick fruit and vegetables out of their gardens and cook it the same day: there is no processed food. The climate is "great": 65 degrees at night, 83 during the day, and generally sunny. One hour of rain in the afternoon is predictable. Wilma lives with the people, rides public transport on bumpy muddy roads, and lives in interior where there are few white people. However, this is how she feels she can really impact people: "if you are not with them and working with them, you cannot impact them."

LCBA members thanked Wilma enthusiastically for her inspiring talk and slideshow. To read Wilma's blog about her experiences in Kisii, visit: http://kireeco.wordpress.com/ .

Monthly Business Meeting:

After the break, LCBA President Norm Switzler called us to order for our business meeting.

Youth Scholarship Program: Membership Coordinator Tomme Trikosko introduced LCBAs first Youth Scholarship students: Joevanie Montalvo and Mason Gaul. Joevanie's mother and Mason's father attended the meeting with them. Kent Yates is working with Mason as his LCBA mentor: they have already put their hive boxes together. Tomme is mentoring Joevanie, and they will be putting Joevanie's hive boxes together at the Toledo high school shop over the next week or so. Both Joevanie and Mason are now taking Tomme's biology course that includes the WSBA Apprentice Beekeeping class curriculum, so they'll be ready to go when their bees arrive. Joevanie will be starting with a package and Mason with a nuc – they can compare notes on their colonies' progress. Everyone present warmly welcomed our first two youth scholarship winners.

Above, left to right: Mason Gaul, Kent Yates, Tomme Trikosko, and Joevanie Montalvo. Mason and Joevanie are LCBA's first Youth Scholarship students; Kent and Tomme are their mentors.

Fundraising Drawing: President Norm ran the drawing with help from assistant Michaela Phillips. Members were most generous with items, including: a candy board from Tim Weible, an LCBA calendar that Susanne made on Shutterfly, an adapted boardman feeder, plentiful fuel for smokers, a massive bag of sugar, and more. The last of two boxes of eggs finally found a home with Gordon Bellevue after four lucky tickets in a row belonged to people who already had chickens (we don't know why Gordon doesn't have chickens).

Treasurer's Report: Treasurer Jon Wade reported on our balance as of this meeting, and reminded us that membership dues are due. The 2014 membership form is up on our website under the "Join Us" link (http://www.lewiscountybeekeepers.org/join_us), and we'll have some hard copies available at our meetings. ***FYI – our bank will not accept checks made out to "LCBA" – you must spell out "Lewis County Beekeepers' Association."*** Thanks!

Package Bee Orders: Renzy Davenport brought information about our package bee orders. FYI, to order through LCBA, you must be current on membership dues. We'll take orders from 6 to 7 p.m. on March 12, prior to our monthly meeting; the order form will be posted on the website and attached to the March newsletter email. Checks are preferred (made out to "Lewis County Beekeepers' Association" only – not "LCBA"), and cash is accepted; credit cards and money orders are not. Members can order 5 frame nucs (deep frames, not western size) – the nucs will be Italians or Carniolans from Oregon, but we can't specify which race we'd prefer – we just get the queen that is with them. The likely nuc price is $90: Renzy is waiting for final confirmation. For package bees and individual queens, prices are now close to set – if there are any changes, they will be very small. 3 pound packages from California will cost $72.50 apiece: members can select either Italians or Carniolans. Individual marked queens, either Carniolans or Italians, will be available for $24 apiece. Norm asked if the age of the nucs is known: Renzy is under the impression that the nucs will be made this year with new queens, but he will check and get the answer for us.

Package Bee Arrival Date: The projected arrival date for the package bees is Saturday, April 19: granted, that's Easter weekend, but this was what was available. If the option for earlier delivery opens up, we will let members know. The price includes the price of the box. However, they are not taking last year's package boxes – it's a different supplier, for one thing, and since some "bad boxes" have gone back to California in the past, sellers don't want to deal with exchange of old package boxes anymore.

Local Queen Availability: One member asked whether LCBA will have our own raised queens available: Vice President Dave Gaston said that this is weather dependent – he will be raising queens and hopes to have them available in July. Tim Giese said that if members are interested, and are willing to hold off until late June/early July, he wants to try to supply northwestern queens, locally grown, not shipped from down south. If people want to do splits, he might be able to make queens available: those interested can call him (360 748 8884) – this would not be a class, just an opportunity to help free us from dependence on California bees.

Upcoming Events: Susanne showed members the list on the website, including the final showing of "More Than Honey" at the Roxy Theater in Morton on Feb 15, the Feb 22 "how to get started in beekeeping" overview at Gardening for Everyone, our beginning beekeeping

course (WSBA Apprentice curriculum), running March 1, 8, 15, 22, and 29 from 1 to 4 p.m. at the Old Credit Union Building in Chehalis with Norm, Susanne, Peter Glover, and Bob Harris as instructors. The class has 19 registered already – if members know someone who's interested, please have them contact Susanne. Our March 12 meeting will feature University of Washington entomology professor Evan Sugden and his undergraduate research team, who will describe the findings of their study of Pacific Northwest parasitism of honey bees by "zombie flies."

Feb 8 Hive Building Workshop: 30 beekeepers braved snow, ice, and cold to attend our Langstroth hive assembling workshop at Rose of Sharon Farm: 23 new or nearly-new beekeepers and 7 mentors were on hand to put together deep bodies, medium and shallow supers, frames, and telescoping covers. A good time was had by all, many brought refreshments to share, and both the *Chronicle* and Toledo *Town Crier* sent reporters to cover the festivities! Many thanks to past-president Bob Harris for opening his great shop/barn and equipment to us (and for having a heater on hand!). Norm said that we might hold another workshop after our spring class if there's enough interest. We also had a show of hands for a workshop on how to assemble top bar hives – there was lots of interest, and the board will set this up in May at Vice President Dave Gaston's shop: dates TBA.

Above, scenes from our Feb 8th hive assembling workshop at Rose of Sharon Farm. At left, Mike Helms helps Sally Weber with medium super boxes as other LCBA members work on their projects; at right, Kent Yates helps new member Lorna and her daughter assemble their first deep.

Below, Mentorship Coordinator Gary Stelzner coaches new members Taylor & Jerry as they assemble frames; below right, President Norm Switzler helps new member Lorna to assemble a medium super.

LCBA Lending Library: Norm noted that our box of books and videos, available for borrowing, is brought to every meeting. However, most items are out, so if you have had stuff checked out for a while, please return items so others can have the chance to see them. If you have a book or video you'd like to donate to the lending library, please contact VP Dave Gaston.

Cool Tools: Tim Weible brought two "hive lifters." A hive lifter is a metal frame that fits over the top of a telescoping cover, expands out scissors-style, and it displaces the weight, letting two people lift a hive box with relative ease. It's "good for us old folks with challenged backs," Tim commented. The smaller sized version is good for getting into hives that are in close quarters.

12th Bee: We viewed a photo of the final version of Tim's 12th bee hive – sporting Super Bowl championship designation:

Above, waitresses at Centralia BBQ pose with the Super Bowl XLVIII championship hive. Go Hawks!!!

Beekeeping Q&A: Overwintered bees: Norm says that now is the time to check your bees: with the mild weather we had the week of this meeting, if your bees were not flying, you may not have bees anymore. Norm suggests lifting up the hives from the back to feel the weight, and supplement food if they feel light. Renzy noted that he caught one hive dwindling a couple of weeks ago: this is time when we face the worst danger of losing bees to starvation. Now, with warmer weather, we can look and feed. Gary Stelzner reminded us that if we feed, we stimulate brood: Tim W. recommends a candy board for that reason. Gary tries to hold off on feeding until the end of March. Norm noted that one can feed a 2:1 sugar: water mix as a way not to trip the queen into too-early production. Renzy said that he uses a baby food jar: they empty it out in a couple days, and he doesn't refill it immediately – he believes it does help by giving bees enough to keep alive, but not enough to make them start breeding while there's not enough forage.

Finally, Kevin Reichert reported a Maine beekeepers' study comparing survivability of package v. nuc bees: their study suggested that if you requeen packages when you get them, survivability goes up 60 percent. (This study is summarized under "Bees in the News," below.

Above: ever wonder what mouse damage looks like? Above, Tomme Trikosko captured this on film.

Protect Your Bees from Pesticides:

New Resources from WSDA & the Xerces Society

WSDA has published a new pamphlet, "10 Ways to Protect Bees from Pesticides." In the wake of the tragic bumblebee kill in Wilsonville, Oregon this past summer, along with media attention to new studies about the dangers neonicotinoid pesticides pose to both honey bees and native pollinators, WSDA lists specific techniques to use/avoid and questions to ask when you buy plants from nurseries, as well as a helpful set of websites to visit to learn more. The pamphlet is posted under the "Plant for Bees" link on LCBA's website and attached to this newsletter email.

Xerces Society: For those who want to learn more about protecting bees from pesticides, Xerces has published a comprehensive new report, "Organic-Approved Pesticides Minimizing Risks to Bees. Xerces' focus is native pollinators, but the information they provide is certainly germane to honey bees. The report is linked under "Plant for Bees" on our website, and you can visit it by pasting this link into your browser: http://www.xerces.org/wp-content/uploads/2009/12/xerces-organic-approved-pesticides-factsheet.pdf .

Photos from WSDA's new pamphlet on protecting bees from pesticides (Eric Johannsen)

BEES IN THE NEWS

Thanks to Steve Norton, Kevin Reichert, Norm Switzler, Tomme Trikosko, and Tim Weible for sending news this month.

"Zombie Flies Infecting Major Media Outlets: May Be Cause of Media Collapse Disorder," by Tom Theobald. 7 Feb 2014, *Bee Culture's Catch the Buzz Ezine*

(*Note from scribe: Kim Flottum of Bee Culture passed along this "somewhat tongue in cheek" discussion of the zombie fly invasion: it's reproduced here as a humorous prelude to our March monthly meeting, where U.W. scientists will present results of their survey of the extent of these insects' parasitism on honey bees in the Pacific Northwest.*)

"The so-called "Zombie Flies" have supposedly reappeared in bee colonies and again are being insinuated as an explanation for the loss of millions of colonies of bees. Is there any merit to these bizarre and desperate reports? Unlikely.

"Properly known as the Phorid Fly, these predators have been seen in bee colonies occasionally for years and have always been thought of as incidental and of little consequence. But now? It isn't the new agricultural technologies killing bees, it is Zombie Flies, Zombie Flies carrying cell phones no doubt, how else are they able to alert the media?

"First, there is no evidence presented that these are anything other than occasional encounters, there has been no legitimate statistical sampling that I'm aware of, but this simple fact doesn't deter industry apologists and spin doctors grasping for straws in their never ending search for "sound science".

"There is a more likely explanation. The Phorid Fly depends on bumblebees as its primary host. Bumblebee populations have crashed for the same reasons as honey bees. In the absence of bumblebees these flies are struggling to survive, and what's left? Honey bees, of course, primarily because of beekeepers' efforts to keep the honey bee populations going.

"Zombie Flies? What really warrants our concern are Zombie Reporters at Zombie News Outlets."

To read Tom Theobald's original piece, visit: http://home.ezezine.com/1636/1636-2014.02.07.08.38.archive.html.

"A Comparison of Honey Bee Colony Strength and Survivability between Nucleus and Package Started Colonies": a study conducted by master beekeepers in Maine in 2009-2010; published 2012.

In 2009 and 2010, two experienced beekeepers in Maine compared over-wintering survival rates between colonies of (1) new southern [southern U.S.] package bees, (2) overwintered northern [New England] nucs, and (3) new packages re-queened with northern [New England] survivor queens in 54 new honey bee colonies. Colonies were managed independently; the beekeepers monitored honey production, disease and mite load, as well as winter survival. Over the two years measured, "the adjusted data for survival revealed the following: 42% of the southern commercially raised package colonies survived their first winter strong enough to be a viable colony in the following summer. 83% of the overwintered northern raised Nucleus colonies were in viable condition, and 90% of the northern requeened packages were in viable condition the following spring. In our project, the Nucs experienced nearly twice the survival rate of the Packages. Additionally, the Requeened Packages also experienced a survival rate nearly double the rate of the 'as bought' Packages." The researchers admit that their colony sample was small; they renewed the experiment in 2013. To read the details of their study, including feeding and medication techniques, supersedure issues, how colonies were included or disqualified from the study,

plans for future research, and more, visit: https://mail.google.com/mail/u/0/#drafts/14429bcf0b903423. To visit lead researcher Erin MacGregor-Forbes' website, visit: http://overlandhoney.com.

"Farmers, Elephants, and Bees: A Winning Combination": 6 May 2013, *O'Reilly.com*

Challenged by habitat loss, African elephants have been breaking through farmers' fences seeking to feed on crops. Lucy King, who does research for "Save the Elephants," has found a way to cut down human-elephant face-offs and has made it affordable to African farmers. The answer? The beehive fence. King discovered that elephants steer clear of acacia trees inhabited by African bees: not only that, they'll warn herd-mates to steer clear, too, if they so much as hear a bee buzz.

King and colleagues devised a "beehive fence" that hangs hives connected by wires at ten meter intervals around a field. The hives hang at chest level: not only does this make the hives accessible for honey harvesting, but elephants clearly see them. The beehive fences include thatched roofs to shield bees from both rain and harsh sunlight. When elephants bump into a hive or a wire, "the beehives all along the fence will swing and release the bees." So far, "crop destruction and human-elephant conflicts" have dropped by as much as 85% in some regions.

Want to help? Email lucy@savetheelephants.org. She's looking for Kenyan student workers, but all applicants will be considered. To see a schematic diagram of the fence and download the construction manual, visit: http://animals.oreilly.com/elephants-and-bees/.

Above, Lucy King with elephant-proof beehive fence.

"Honey bees demonstrate decision making process to avoid difficult choices": 8 Jan. 2014, *Catch the Buzz E-zine*

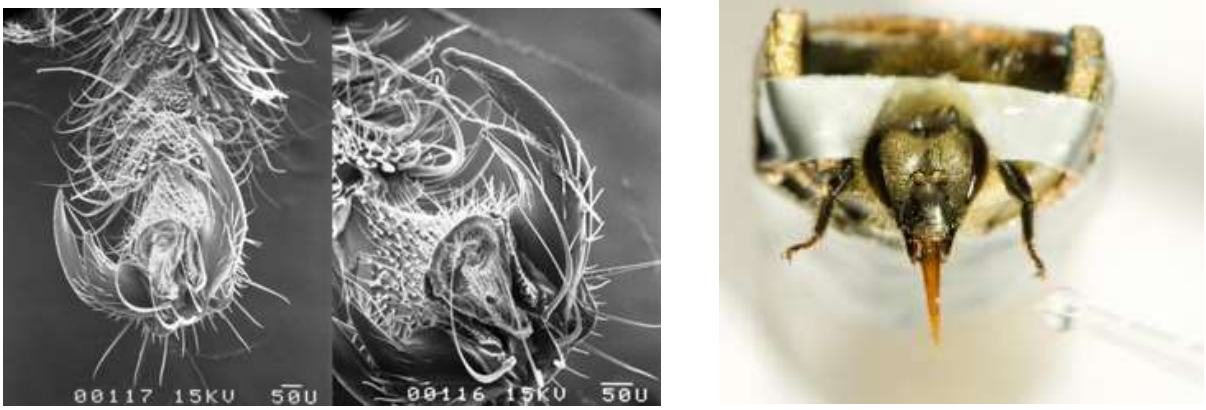
When faced with tough choices, but not given enough information to make a good decision, honey bees act like people – they "opt out" of making commitments, according to a recent Australian study. Researchers made bees "learn a rule to match a combination of shapes with nectar": if they identified the target correctly, they got nectar as a reward, but wrong identifications got a punishment of a "bitter tasting solution." The added condition: the bees could refuse to make an identification at all - like students avoiding a negative score on an ambiguous SAT question – and thus forgo the possibility of the sweet reward, but avoid the threat of the bitter punishment. The tougher the challenge, the more often the bees "opted out." Whether non-humans could weigh "their level of certainty about a choice before taking action" has long been argued: dolphins, dogs, and rats have been tested, but "this study is the first to demonstrate that even insects are capable of making complex and adaptive decisions."

To read more, visit: http://home.ezezine.com/1636/1636-2014.01.08.11.14.archive.html.

"Do You Have a Sweet Tooth? Honey Bees Have a Sweet Claw": 4 Feb 2014, *American Bee Journal Ezine*

A new French study shows how honey bees process information that they taste using claws on their forelegs. Sensilla, "hair-like structures . . . that contain receptor nerve cells," help many insects taste. Honey bees have sensilla on their mouth parts, antennae, and the last joints of their legs, called tarsi. The study found that bees assess what they learn from their front tarsi when choosing whether or not to feed. The double claw at the end of the honey bee tarsus targets sugary tastes, whereas the tarsomeres, the segments before the claws, target saline solutions. Given that bees' mouth parts and antennae contain more sensilla than their tarsus, tarsal sensitivity is "impressive," according to the researchers: "The claw's sense of taste allows workers to detect nectar immediately when they land on flowers. Also, bees hovering over water ponds can promptly detect the presence of salts in water through the tarsomeres of their hanging legs." When the bees get clashing signals from their forelegs – say, a nice hit of sucrose from the left, but something noxious from the right, then first impressions prevail: bees "weigh" both, but their response – to feed or to move on - tends to be governed by information they process first.

To read more, visit: http://us1.campaign-archive2.com/?u=5fd2b1aa990e63193af2a573d&id=1c86064c4b&e=e9ff21e0bb.



Above left, honey bee claw under an electron microscope (de Brito Sanchez et al. / *Frontiers in Neuroscience*); right, honey bee extending her proboscis toward sweet stimulant (Cyril Fré sillon at Centre National de la Recherche Scientifique).

"Can bees be trained to sniff out cancer? Designer Susana Soares has created a glass apparatus that harnesses bees' sense of smell to detect disease": 14 Dec 2013, *Smithsonian.com*

A honey bee's keen sense of smell can home in on an odor generated by just a few molecules: bees can learn to sniff out chemicals "from methamphetamines to ingredients in explosives." Scientists have shown that bees can sniff out tuberculosis, diabetes, and possibly even cancer. Certain diseases – lung cancer is one – generate "odorous compounds" that manifest in blood and urine – and breath.

Now, a British product designer has invented a glass chamber into which a patient could exhale – and she has learned that bees taught "to associate a specific chemical odor with a food reward" will gather around that exhalation if it contains that target odor. Some studies have trained mice or dogs to sniff out cancers, but bees' antennae make them even more sensitive to target odors, especially when there are many competing signals, as there are in human breath. Dogs, with their legendary sniffers, only got it right in 71% of tests – but bees scored 98%. Not only that, the bees were trained inside ten minutes.

Soares' glass chamber has been field tested and turned up a diagnosis of diabetes later confirmed by doctors. Sadly, though, no medical companies see enough profitability in honey bee cancer or other disease screening to try making it more widely accessible. For now, the project remains a "purely academic exercise" that shows a "symbiotic relationship" between people and bees. A similar project was conducted with wasps, who proved able to sniff out bedbugs.

To read more, visit:
http://www.salon.com/2013/12/14/can_bees_be_trained_to_sniff_out_cancer_this_designer_says_yes_partner/?source=newsletter.

Above, bees cluster around exhaled breath in Soares' glass chamber (Susana Soares)

Good news and bad news for bees and beekeepers in the new 5 year Farm Bill: 7 Feb 2014, *Catch the Buzz ezine*

Bees and beekeepers got both treats and lumps of coal in the new farm bill. First the good news: Congress authorized an extension of $20 million/year for USDA bee research. Second, the National Forest Service will have to take guidance from the USDA about permitting bees to forage on Forest Service lands, as well as about planning for good bee forage. Third, USDA is required to consult with the EPA and Dept. of Interior "to publish guidance on enhancing pollinator health and the long-term viability of populations of pollinators." Fourth, under the USDA conservation program, land owners will be required to "emphasize practices beneficial to managed honey bees." Fifth, the USDA has to report on whether we need "a national standard of identity for honey." Sixth, USDA now has to report to Congress each year about work done to reverse declines in honey bee health, as well as assess how well federal work has done in "mitigat[ing] losses to bees and impacts to the commercial beekeeping industry." Finally, the American Honey Producers' Association's proposed wording for "importation of plant incorporate protectants" was selected instead of terminology proposed by seed trade groups.

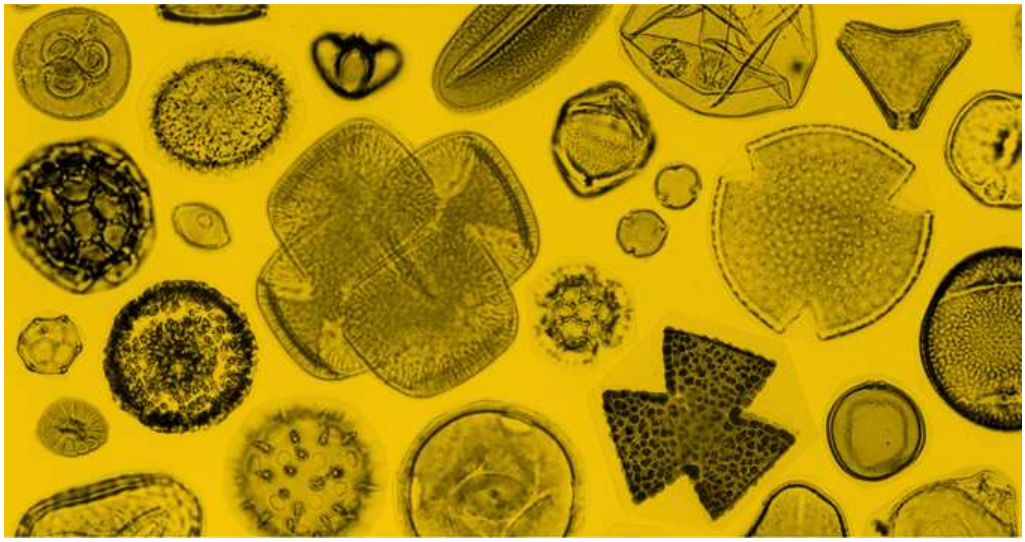
Now the bad news: first, some key provisions of the pollinator protection amendment – which passed handily in the House – got shot down in the Senate. Cut from the amendment are the requirement that an interagency task force on honey bee health be funded and authorized to oversee legislation and permits – instead, there will be only an annual report "on how to better coordinate interagency work." Also cut: wording that urged USDA to "conduct feasibility studies on research laboratory improvements in Baton Rouge and California" and to use "best available peer reviewed science" in making decisions – the latter may threaten undo much of the good news, insofar as those good news provisions depended on USDA action.

To read more, visit: http://home.ezezine.com/1636/1636-2014.02.07.18.13.archive.html.

"Smithsonian Reports GMO Soybean Pollen Threatens Mexican Honey Sales": 7 Feb 2014, *Science Daily*

Researchers worked with rural Mexican farmers to find out home much genetically modified soybean pollen had gotten into honey samples rejected by Germany: a matter of concern south of the border, as Mexico is the world's 4th largest producer / 5th largest exporter of honey. In 6 of 9 honey samples from the Campeche region, pollen from indigenous plants was accompanied by GMO soy pollen. Having EU nations ban their honey comes as a harsh blow to these farmers – and since other regions of Mexico grow up to five times the GMO soy Campeche raises, future implications are serious. Smithsonian's lead researcher noted that "Bee colonies act as extremely sensitive environmental indicators. Bees from a single colony may gather nectar and pollen resources from flowers in a 200-square-kilometer area. With an economy based on subsistence agriculture associated with honey production, the social implications of this shift in the status of honey are likely to be contentious and have profound implications for beekeeping in general."

To read more, visit:
http://www.sciencedaily.com/releases/2014/02/140207083923.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily+%28Latest+Science+News+--+ScienceDaily%29



Pollen and spores of Barro Colorado Island by David Roubik and Jorge Enrique Moreno (Smithsonian Tropical Research Institute)

"Exposure to pesticides at levels bees encounter has subtle impacts, and can eventually make colonies fail": 31 Jan, 2014, *Pollinator Stewardship Council*

British researchers have shown that being exposed to even low levels of neonicotinoid pesticides – the level found in normal field encounters – make them stop foraging effectively. The impacts on individual bees are "subtle" – and cumulative: ultimately, they can kill a colony. Lead researcher Bryden explained, "Exposing bees to pesticides is a bit like adding more and more weight on someone's shoulders. A person can keep walking normally under a bit of weight, but when it gets too much – they collapse. Similarly, bee colonies can keep growing when bees aren't too stressed, but if stress levels get too high the colony will eventually fail." Co-author Vincent Jansen added, "It is intriguing that the way in which bees work together is the key to their success, but could also contribute to their decline and colony failure." The researchers hope that policymakers will use this evidence as they consider ways to manage pesticides.

In a related study, bumblebees exposed to low, field-realistic doses of imidacloprid (0.7 parts per billion in sugar water and 6 ppb in pollen) brought back nectar about as often as control bees, but brought back pollen significantly less often than did control bees: in 40% of trips, compared with 63% for control bees. Since pollen helps stimulate queen laying, researchers think that imidacloprid exposure may "provide[] a causal mechanism behind reduced queen production."

To read more about the British study, visit: http://us6.campaign-archive2.com/?u=8314a260d85f4354c1ed1a0df&id=7d6e952e96&e=eda990b06a. To read "Field realistic doses of pesticide imidacloprid reduce bumblebee pollen foraging efficiency": 7 Jan 2014, Springer Science+Business Media, visit: http://us6.campaign-archive2.com/?u=8314a260d85f4354c1ed1a0df&id=7d6e952e96&e=eda990b06a.

"EPA Seeks Public Comment on Draft Guidance Documents for Evaluating Pesticide Spray Drift": Comments needed by 31 Mar, 2014, *Pollinator Stewardship Council*

EPA has made two "draft guidance documents" available for public comment. The intent of both is to safeguard communities near agricultural fields. They explain how they would assess impacts of "off-site spray drift" of pesticides on people and the environment. Finalized versions of these guidelines will be posted on the EPA website. EPA's intention is that "the model-generated values for spray drift fractions [will] provide realistic exposure and risk estimates for both ecological and human health assessments. These policies will promote consistency within EPA, as well as with other federal agencies and international regulatory partners that rely on predicted spray drift values."

Pesticide drift is defined as "the physical movement of a pesticide through the air at the time of application or soon thereafter from the target site to any non- or off-target site. This does not include pesticide movements by erosion, migration, volatility, or windblown soil particles after application. Drift is dependent on the design of application equipment, size of spray droplets or dry particles, weather conditions, and other factors." Once airborne, pesticides can land in, or on, places, people, or "nontarget species."

The documents are titled: "Guidance on Modeling Offsite Deposition of Pesticides via Spray Drift for Ecological and Drinking Water Assessments for the Environmental Fate and Effects Division (Draft dated 11/1/2013) (Ref. 1)," and "Residential Exposure Assessment Standard Operating Procedures (SOPs), Addenda 1: Consideration of Spray Drift (Draft dated 11/1/2013) (Ref. 2)." (Docket identification (ID) number EPA-HQ-OPP-2013-0676).

To read the documents, visit: http://us6.campaign-archive2.com/?u=8314a260d85f4354c1ed1a0df&id=7d6e952e96&e=eda990b06a. For instructions on how to comment, visit: http://www.epa.gov/dockets.

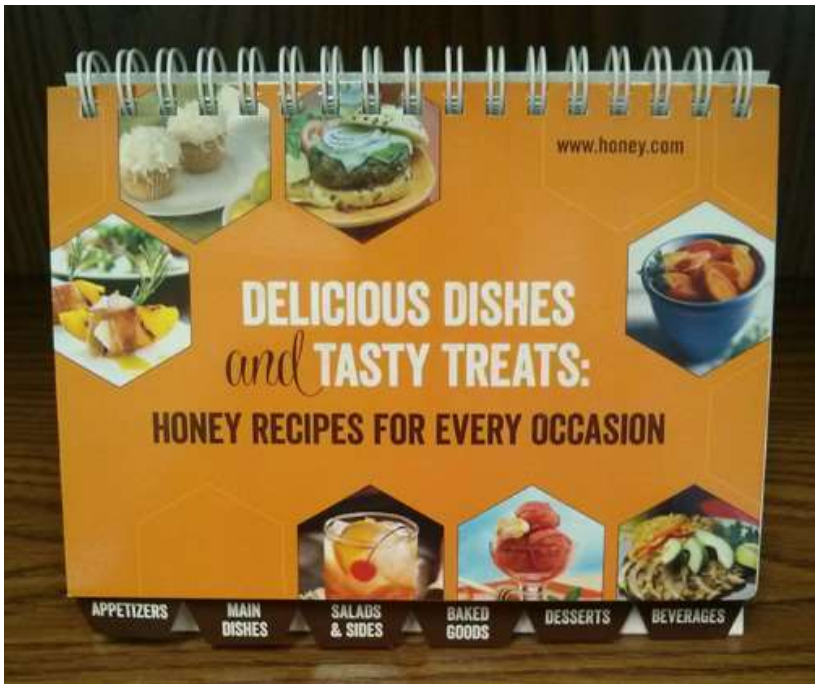
ANNOUNCEMENTS & HELP WANTED

LCBA Is On Facebook! Visit:
https://www.facebook.com/LewisCountyBeekeepersAssociation?ref=hl

Thanks to Membership Coordinator Tomme Trikosko for Setting Us Up!

National Honey Board Offers Newly Created Honey Cookbook: *Delicious Dishes and Tasty Treats: Honey Recipes for Every Occasion.* NHB reports that their new, spiral-bound, 74-page cookbook is not only "full of mouth-watering honey-inspired recipes, but it also has functional

and educational tidbits when cooking and baking with honey. It walks users through how honey interacts with different dishes, as well as breaks-down how to substitute honey for other granulated sweeteners. Finally, readers are left with a few cooking tips to get the most out of their honey-inspired dishes." The cookbook features color photos and is available for $5.00. To order, please contact Andrea Brening, the National Honey Board's fulfillment coordinator at 800-553-7162. For more information, visit: http://home.ezezine.com/1636/1636-2014.02.07.18.13.archive.html .



March 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.

March 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)