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June 2014 LCBA Newsletter

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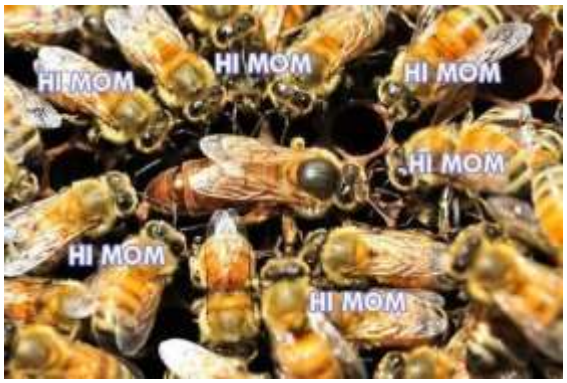
Questions? Suggestions? Resources you'd like to share, stories you'd like to tell?

Please contact LCBA Secretary Susanne Weil: susanne.beekeeper@gmail.com or call 360 880 8130.



Bee-lated Happy Mother's Day to Queen Bees Everywhere & Happy Father's Day to All Our Drones!

UPCOMING LCBA EVENTS:

June 11: LCBA Monthly Meeting: *PLEASE NOTE OUR NEW START TIME!*

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

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

Topic: Queen-Rearing in the Pacific Northwest: Breeding Bees Adapted to Our Climate

Speaker: Charles Bennett, President, Pacific Northwest Queen Rearing Club & Vice President, Washington State Beekeepers' Association.

Charles is back – many remember his great talk on planting a bee-friendly garden in fall 2012. For a preview of his June 11 talk, visit PNQRC's website: http://www.pacificnorthwestqueenrearingclub.org/ Charles's talk will be followed by Q&A, our business meeting, monthly drawing, & more, including news about our honey judging at the Southwest Washington Fair.

Above, queen surrounded by her retinue (LCBA member Rick Battin)

Saturday, June 14: Early Summer Hive Inspection Workshop I

Where: Chehalis (please RSVP for directions)

When: 1 to 3 p.m.

What: Inspecting 2014 package & nuc colonies for brood pattern, potential re-queening issues, testing for mites, when to super.

Saturday, June 21: Early Summer Hive Inspection Workshop II

Where: Chehalis: Please RSVP for address and directions

When: 1 to 3 p.m.

What: Inspecting colonies in an established apiary for brood pattern, potential re-queening issues, testing for mites, when to super.

Lintott Alexander Park by the Chehalis River (Photos, Chehalis Parks & Recreation)

Saturday, July 12: LCBA's 6th Annual Summer Potluck

In July, our Summer Potluck Meeting is held instead of our regular 2nd Wednesday meeting.

Come enjoy good food, good fellowship, & talk bees. Honey recipes always welcome!

Where: Lintott Alexander Park, Shelter #2; 1101 Riverside Drive, Chehalis WA

When: 4 – 8 p.m.

Facilities: We'll have 10 large picnic tables & benches – altogether, the facility can accommodate 100. There will be a wood burning stove with 4 cooking areas, 4 electrical outlets, an outdoor faucet, garbage cans with liners.

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

Topic: Fun! No speaker, though we'll have our monthly drawing to help KiReeco, our sister beekeeper organization in Kisii, Kenya (see March newsletter). KiReeco is preparing to train 500 new beekeepers and build an extractor to help these subsistence farmers market their honey and fund their children's schooling. Please bring items if you feel so moved – followed by a short business meeting.

August 12-17: LCBA at the Southwest Washington Fair

We'll have an exhibit in the Floral Building again, with our Observation Hive, People's Choice Honey Judging, & plenty of materials to help our Lewis County neighbors get to know bees better. Special events will be posted in early August. LCBA's official Fair honey judging will be August 11: details for entry & criteria coming soon. Want to volunteer? Please contact Susanne: we'll need you!

August 13: LCBA Monthly Meeting

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

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

Topic: Why Honey Bees Need Weeds: They're Medicinal!

Speaker: Franclyn Heinecke, WSBA Area 2 Representative: With relatively few immune genes, bees use forage - resins, nectar and pollen - to strengthen individual & colony immune responses. Blackberry pollen & honey, specifically, are especially nutritious for honeybees. Franclyn will also review some plants listed as noxious weeds, how they are controlled, & costs to state agencies of that control, as well as native plants beneficial to bees that can be used in gardens. Franclyn was at our May meeting & will present a counterpoint to Bill Wamsley's noxious weed presentation.

September 10: LCBA Monthly Meeting

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

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

Topic: Improving Fall/Winter Survivorship

Speaker: Dr. Dewey Caron: Bee losses in the Pacific Northwest were fearsome this past winter: Dr. Dewey Caron, affiliate faculty in Entomology at Oregon State University and one of the driving forces behind BeeInformed's bee loss survey, will update us on losses, broken out by Langstroth v.s. Top Bar v.s. Warre hives, but his main focus will be take-home messages from BeeInformed's research on "what we as beekeepers can do – before fall weather closes us down – to raise the bees that are going to raise the bees to pass the winter: fall management with emphasis on helping improve survivorship." Q&A from LCBA members to follow.

Coming Saturdays this October/November: LCBA's BEGINNING BEEKEEPING CLASS

When: October 4, 11, 25, November 1, 8, from 9 a.m. to noon

Where: Centralia College Student Center, 212 S. Rock, Centralia WA 98531

Registration Brochure: available under "Upcoming Events" on LCBA's website (or ask Susanne for a copy). LCBA offers the Washington State Beekeepers' Association's apprentice beekeeping curriculum. The class builds core beekeeping skills and covers basic bee biology/behavior, equipment & apiary set-up, seasonal management, identifying & managing pests, honey harvesting, and over-wintering. Students completing the course earn WSBA's Apprentice certificate & can advance to Journeyman & Master Beekeeper courses. Washington State Beekeepers' Association manual lays out basics for beginning beekeepers; LCBA's PowerPoints & demonstration materials supplement manual with visuals. Questions encouraged; children welcome. Post-Course Support: LCBA's free Mentor Workshops give hands-on guidance in working bees. Students who join LCBA are eligible for discounts on spring package / nuc bee orders & free consultations with an individual "bee mentor." Course cost: $35 individual, $50 couple/family. Fall 2014 instructors: Bob Harris, Tomme Trikosko, and Jon Wade.

Above left, Island County Extension Director Tim Lawrence, our October speaker; right, Dewey Caron, our September speaker. They say they're not bringing their bees with them. . . .

October 8: LCBA Monthly Meeting

When: 6 – 8:45 p.m.: Social Time 6 to 6:30; Speaker, 6:30 to 7:30; Business Meeting & Beekeeping Q&A, 7:45 to 8:45

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

Topic: Neonicotinoids & Bees; Bee Biodiversity

Speaker: Dr. Tim Lawrence: Tim is the Extension Director of Island County. Based on Whidbey Island, Tim works with WSU's Entomology department researching a wide range of honey bee health issues, including their most recent project sampling Washington colonies for traces of neonicotinoids. His talk on "Human Dimensions of CCD" was one of the highlights of last October's WSBA Conference.

LCBA MONTHLY MEETING NOTES: MAY 14TH

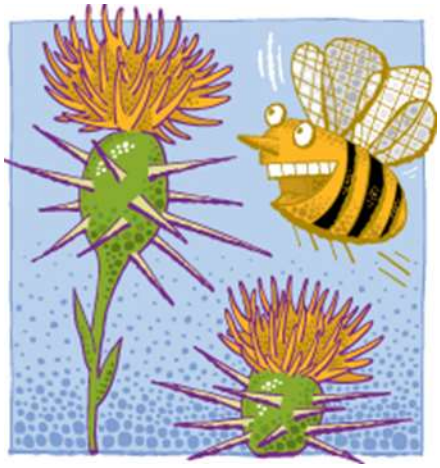
Bill Wamsley: Lewis County Noxious Weed Director

Bill Wamsley works with the state Weed Board, as well as with our county Extension office, if not to eradicate, then at least to limit the spread of weeds classified as noxious. Of course, many of these weeds are forage for honey bees, so he encourages us to plant native cover plants and shrubs to support our bees, and encourages integrated pest management to make decisions about handling weeds. Bill's informative PowerPoint presentation is attached to this email in PDF format. What follows are some key points.

Noxious weeds: why they're bad: These weeds are invasive, cut into habitat for native and endangered species, reduce forage quality, make grass seedling establishment difficult, increase erosion, degrade riparian systems, and some are poisonous to livestock.

Noxious species in Washington: we have over 100 species of noxious weeds ranging from high to moderate priority for eradication. The slideshow has more details, including photos for identification and information about life cycles. Bill singled out the following weeds for discussion. **Butterfly bush** is one we're seeing more often in Lewis County, for example in Packwood. Bill suggests that if you start to see seedlings in your yard, ask if it is a good plant to have or not: "if you see it at a garden club, just say no." **Garlic mustard** is relatively new to the list. **Kudzu** showed up in Clark County a few years ago. We have lots of history with **tansy ragwort**, though its cycle, after expanding, has been reducing. Bill's office is trying to stop meadow knapweed from spreading beyond its historical area around Winlock: if let go, it will take over forage fields.

Yellow starthistle produces great honey: we don't have much in our area, though it's all over the bald hills on Columbia and Snake Rivers. Sometimes we get starthistle on roadsides, though, and it can be dangerous because of its spines. Tomme noted that starthistle is dangerous for horses: it kills part of the brain so the horse can't swallow.



Above left, "bees love star thistle"; right, Scotch Broom (images from Bill's slideshow)

Bees love **Scotch Broom,** a Class B weed with 40 to 60 year seed viability. Scotch broom doesn't have airborne pollen like alder, but other things tend to bloom at same time, such as grasses that people are sensitive to, and the finger gets pointed at Scotch Broom. Bill's working to prevent this weed from establishing on the North Fork of the Neuwakum and on Lincoln Creek: beetles reduce seed production of broom, offering a natural means of control. The challenge for biological controls is finding insects that don't affect the economic value of legume and other crops like alfalfa clover.

Japanese knotweed: invasive knotweed, grown as an ornamental, blooms prolifically from mid-August to early September. Some have dumped it on creek banks, so it has gotten into river systems and is spread by floods. It's widespread along theTilton between Morton and Onalaska, among other areas. Bill got funding from the Dept. of Agriculture to control knotweed on Chehalis and other rivers using bee friendly herbicides applied late in the day; they're also looking at changing techniques to hit stems, not flowers. WSU is looking at knocking it down using pathogens. Norm noted that the honey is "horrid," very dark, with a molasses flavor. Pat Swinth urged taking honey supers off before knotweed blooms.

Critical bee forage? Franclyn Heinecke, our visiting WSBA Area 2 representative, noted that there are no native plants blooming in fall, so knotweed may be about all that's available to bees. Many plants on the list can be key forage for bees, such as both species of **blackberry.**

Integrated Pest Management: Bill recommends that gardeners consider integrated pest management: "a systematic approach that focuses first on preventing problems." He noted that both Extension and local garden stores can help gardeners implement IPM. The attached slideshow details pest identification: beneficial v. harmful, as well as pest tolerance level and how it varies depending on what you grow, or where you market – if you sell produce at the farmer's market, you may be fine with some pests as long as produce is thoroughly washing. Management strategy includes "multiple control tactics, like cultural, mechanical, biological & chemical methods" (see slideshow for details on these tactics). Strategy considerations include what's least toxic and will have least impact on non-target insects like bees. Finally, it's important to monitor after any kind of treatment to see what worked and what didn't.

Protecting bees from pesticides: This discussion naturally led to Bill's next topic. Bill shared many resources with us. The pamphlet, "10 ways to protect bees from pesticides," available on LCBA's website: http://lewiscountybeekeepers.org/yahoo_site_admin/assets/docs/388-TenWaysToProtectBeesFromPesticides.52191716.pdf. "How to Reduce Bee Poisoning from Pesticides," and Oregon State University publication, is available at: http://wasba.org/how-to-reduce-bee-poisoning-from-pesticides-pnw-591/ . The National Pesticide Information Center has many resources on their website, npic@ace.orst.edu, as well as a hotline: 800 858 7378. Their website includes lists of active ingredients in commercially available pesticides.

Native Plants

Native plants should be your first choice to help our native bees. Listed below are some plants that are good sources of nectar or pollen for bees. This list is not exhaustive; there are many other plants good for bees. Individual species have not been included. Not all of these genera will have species in your local area, but they do represent plants that will grow in a variety of environments. Use a wildflower guide or contact local nurseries to find your local species.

Aster	*Symphyotrichum*	Lupine	*Lupinus*
Balsamroot	*Balsamorhiza*	Ninebark	*Physocarpus*
Blanketflower	*Gaillardia*	Oceanspray	*Holodiscus*
Buckwheat	*Eriogonum*	Oregon grape	*Mahonia*
California poppy	*Eschscholzia*	Penstemon	*Penstemon*
Ceanothus, buckbrush	*Ceanothus*	Phacelia	*Phacelia*
Clarkia	*Clarkia*	Rabbitbrush	*Chrysothamnus*
Currant	*Ribes*	Rose	*Rosa*
Fireweed	*Chamerion*	Serviceberry	*Amalanchier*
Goldenrod	*Solidago*	Snowberry	*Symphoricarpos*
Gumplant	*Grindelia*	Sunflower	*Helianthus*
Huckleberry	*Vaccinium*	Willow	*Salix*

Garden Plants

Flower beds in gardens, business campuses, and parks are great places to have bee-friendly plants. Native plants will create a beautiful garden but some people prefer "garden" plants. Many garden plants are varieties of native plants. This list includes plants from other countries—"exotic" plants—and should be used as a supplement to the native plant list. As with the native plants, this list is far from exhaustive.

Basil	*Ocimum*	Marjoram	*Origanum*
Borage	*Borago*	Mexican sunflower	*Tithonia*
Catnip	*Nepeta*	Mint	*Mentha*
English lavender	*Lavandula*	Purple coneflower	*Echinacea*
Giant hyssop	*Agastache*	Rosemary	*Rosmarinus*

For more pollinator conservation information, go to www.xerces.org

Native Cover Crops for Southwest Washington: These plants offer good bee forage while helping us avoid noxious weeds. WSU's Extension Fact Sheet # FS111E, available online at https://pubs.wsu.edu/ has information, including steps for planting: if you know the habitat on your land, you can match soil and plants that will play nicely together. Above, Bill shared Xerces' chart listing cover crops that do well in our area. Bill noted that these are good soil builders for gardens, as well as good bee forage. Jen Taylor asked whether it's better to have cover crops or a fallow field: Bill said that a key advantage of planting a legume cover crop is that it brings nitrogen from air and fixes that in the soil. Herbaceous crops have multiple advantages. Gretchen noted you don't want red clover, but crimson clover for a cover crop; Tim Weible noted that the flowers of red clover are too deep for the bees' proboscis to get in.

Bill noted that the last Farm Bill targeted some funds to enhance pollinator plantings. Franclyn wondered whether this would help protect fence rows and farm field edges, where much of bees' diverse nutrition grows. Some commercial pollinators go elsewhere to pasture their bees because so there are few places where large numbers of bees can be supported.

Left,bee golden with pollen (Marcelle Stenzig); right, pollen-laden bees march over Boardman (editor)

Chemical Weed Control and Bees: Chemical methods of weed control and toxicity to insects came in for considerable discussion at this meeting. Some so-called organics, like horticultural oils, can be just as bad as industrial chemicals, so it's crucial to be careful applying these. Franclyn asked about the herbicides used to eradicate knotweeds: broad applications also kill vetch and clover, with the result that a landscape that once supported bees may have most if not all forage taken out, so is the Weed Board prioritizing more targeted approaches? Bill noted that they try: for example, in Packwood, they recently tried to get in to eradicate noxious weeds before desirable plants came up and could be injured. Franclyn further noted that some herbicides are active up to 4 years, so hoping for residues to recede after those kinds of kills won't work. Bill agreed that this was a well-taken point and more education is needed.

Bud Walker noted that on Christmas tree farms in our county, there's often spraying when scotch bloom is in flower: they don't call or post notices, but just spray, and bees are killed as collateral damage. Another question was raised about the permit process for spraying: the Washington Department of

Agriculture gives permission for commercial spraying. Bill said that around water, a permit is need; there are other requirements based on application. Some aerial applications may require not a permit, but posting notices. Much emphasis is placed on following label directions, though as recent news stories demonstrate, directions don't always get followed.

We thanked Bill for his informative presentation. The topic of forage for bees will be approached from a different angle at our August 13 meeting, when Franclyn Heinecke will share research from her Master Beekeepers' project: "Why Honey Bees Need Weeds: They're Medicinal!"

Monthly Business Meeting Notes:

Drawing: President Norm Switzler kicked off our business meeting with our monthly drawing to benefit our youth scholarship program, assisted by Dahlia Mechell. Among the lucky winners were Cody Warren, Joanne Morgan, Diane Fairley Inmon, Jerry Mizar, Gottfried Fritz, Ed Carter, Mark Toenyan, Leslie Schultz, Linda Bartlett, and Chuck Pollock. These folks took home a "Bee Crossing" sign, a clock set into a woodcut of a tree, division board feeders, bee-themed re-usable grocery bags, a bee brush, eggs, and, especially popular - tomato, borage, and other plants donated by Steve Howard. Thanks to all donors and ticket buyers – we raised $110 for our 2015 youth scholarship program.

Bee Orders: Between package and nuc orders, we brought 143 new colonies of bees into Lewis County: 56 packages with Italian queens, 51packages with Carniolan queens, and 36 nucs of undetermined lineage. Your scribe would like to note thanks to Norm and VP Dave Gaston for transporting bees, Renzy Davenport for organizing orders, and Mentorship Coordinator Gary Stelzner for handling distribution of the nucs: a lot of effort went into getting these bees here. Reports so far suggest strong queens and healthy nucs. May our new bees thrive!

Above, new LCBA members Martin & Marcelle Stenzig (left) and Cody & Linnea Warren (right) on package bee pickup day.

Youth Scholarship Update: Membership Coordinator Tomme Trikosko reported that scholarship student Mason Gaul has his nuc up and going. Tomme helped her mentee, Joevanie Montalvo, inspect his hive and reported that his queen is doing so well that Tomme is jealous. Joevanie's mom reports that he checks his bees daily and often doesn't come back for an hour: "he talks to them and holds them and feeds them, and I think he's in love with his bees!"

WSBA Apprentice Beekeeping Class at Toledo High School: Tomme reported that her animal husbandry class, including Joevanie and Mason, has completed the WSBA apprentice beekeeping curriculum, and that out of 40 students, only 3 did not have scores high enough to earn certificates. Perhaps more important is how much they learned and how their attitude toward bees has changed: for

example, one girl who was, at first, absolutely terrified of bees is now unafraid. Tomme really enjoyed teaching the class for these eager kids: covering the curriculum took twice as long as she had planned since the students had so many good questions! Norm noted that the board is grateful to WSBA for giving permission for Tomme to embed their curriculum in her animal husbandry class.

Above left: LCBA Youth Scholarship student Joevanie Montalvo helps visitors at the Spring Youth Fair find the queen; right, Queen Bee Michaela Phillips feels heat generated by bees in our observation hive.

Spring Youth Fair: Norm reported on LCBA's first time participating in this annual Lewis County event. As our slideshow of pictures from the fair showed, LCBA's observation hive made our booth as busy as the face painter. Kids of all ages were drawn by the magnetic attraction of the bees. Norm put his nuc queen into the observation hive, and she's a champion, with a superb retinue that made her easy to spot. Visitors watched her laying eggs and her progeny hatching out. Michaela Phillips donned a bee costume and handed out honey stix to visitors, as well as found the queen for visitors. Many thanks to our volunteers: in addition to Norm, Mason, Joevanie, and Michaela, Gordon Bellevue, Gottfried Fritz, Dave & Kaye Gaston, Linda Newton, Terrie Phillips, Amie & Trevor Smith Gary Stelzner, and Susanne Weil. Special thanks to Sharette Giese for sharing "Gifts of the Hive" display and to Peter Glover & Gary for setup! Thanks also go out to the National Honey Board for donating recipe booklets and informational brochures about honey. For photos, visit the Photo Gallery on our website.

LCBA also participated in Centralia College's Earth Day festival: Tomme Trikosko, Satori West, Gottfried, & Susanne staffed our educational exhibit. Thanks to organizer Melanie Case for inviting us!

Mentor Workshops: Since our April 9 meeting, we've had two mentor workshops – one in Silver Creek, Randle, and Packwood on April 12, and one in Winlock at Gary Stelzner's apiary on April 26. Both were very well attended and gave our new beekeepers a hands-on look at how to inspect hives. To see pictures, check the photo gallery and mentor pages on our website. *Post-meeting note:* Despite the weather, LCBA had 2 great workshops in May. First, VP Dave Gaston hosted a top bar hive assembly and inspection workshop at his shop / apiary in Littlerock on May 17, and Norm led a hive inspection at new member Bob Lloyd's apiary Chehalis on May 18, though the rain put the kibosh on getting into new member Danny Halverson's nearby hives.

To feed or not to feed? There is now sufficient forage to stop feeding bees, though continuing with a 1:1 sugar: water mix can help promote building comb, and hived swarms should be fed at first.

Swarm & colony removals: The requests for removal of swarms and colonies are coming in fast as the weather warms up, though rain has made scheduling removals a challenge. Rob Jenkins and his team did a removal in Napavine, and Kevin Reichert and Grant Inmon have done a couple; Norm has several lined

up. Swarm removals: apart from the day in April when most of Centralia seemed to swarm, most calls have come from the southern swath of the county: Toledo, Winlock, Napavine areas.

How to get involved doing swarm and colony removals: A signup sheet for volunteers was passed around again. If you missed this, but would like to participate, please contact Susanne to be put on the "Bee Team" email list. FYI: when bees are removed and ready to be taken home, priority goes to LCBA members who are willing to come out and help do swarm captures and colony carve-outs. Gary noted that if you bring bees home in a nuc boxes, don't make that their forever home: bees can – and will – chew through!

Special offer: Kevin Reichert announced that if your day job makes it tough to join the bee team, you can give him a box, and he'll hive the bees and give them to you, finding a way to share the bees and make this equable. It's best if you can go along on removals, but if it is not possible, let Kevin know (you can get his number from Susanne). Rob noted that he tells people who come on his carve-outs to bring woodenware, so that they have the option of bringing bees home if there are enough to go around. Norm carries extras of everything, too.

WSU Study – Sampling Colonies for Neonicotinoids: Susanne announced that Tim Lawrence, Island County Extension agent, has asked for more beekeepers to permit him to take bee bread samples from their colonies to aid in this research. Vice President Dave Gaston reported that Tim sampled his colonies, was quick, is nice, "does a great job with the bees," and that his bees plugged the small holes Tim made in the foundation quickly. If you're interested in participating, please send your physical address and phone number to Susanne.

LCBA Meeting Time Change: Our meetings have been running overtime – LCBA members have many great questions and ideas to share. However, staying past 9 forces Centralia College's janitors to stick around and work overtime. We want to be good guests. We discussed moving the meeting time so that our speakers start at 6:30, with social hour starting at 6 p.m. It was noted that we could shorten the business meeting by not covering upcoming events, which members can access via website and newsletter. A show of hands carried the motion. Please mark your calendars for our new start time!

Honey Judging at the Southwest Washington Fair – New Process

Got Honey? Please consider entering it in our 2014 Honey Judging contests at the Fair! Once again, LCBA will judge the "formal" Fair contest. We'll also reprise last year's popular, informal "People's Choice" tasting to help Lewis County residents learn about the benefits of raw honey. For this year's formal judging, we have a new process: the board has bought 1 pound Queenline jars to give to members who wish to submit honey, both for members' convenience and to ensure a professional-looking display. Honey submitted for the formal judging must be in 1-pound Queenline jars (whether your own or those given out by the club). As last year, there'll be 2 categories – amber and dark. Jars will bee available at

our June and July meetings – please sign up and take a jar (or 2 if you're planning to enter both amber and dark!). Criteria for the judging will otherwise be the same as last year and will be published in our July and August newsletters. For the People's Choice contest, any kind of jar is welcome.

KiReeco Kenyan Beekeepers
"Sister Beekeepers' Association" Proposal

At our February meeting, former LCBA member Wilma Sofranko updated us on beekeeper training being done in the Kisii highlands at organic farm co-operative, KiReeCo (Kisii Rural Education and Empowerment Coalition). Last year, LCBA helped Wilma secure WSBA's apprentice curriculum free of charge to facilitate training subsistence farmers in keeping bees, giving these farmers an opportunity to sell honey through the fair trade co-op that KiReeCo's organic farm works with. This income source can enable Kisiians to send their children to high school, an expense that most cannot afford.

KiReeCo has invited LCBA to become their sister organization, "to work in partnership to train farmers in humane beekeeping and honey production, help them set up a hive production program and workshop on their school campus, assist them in designing and producing a commercial extractor with assistance from KiReeCo volunteer technicians, and working together to share information, experiences, and data on beekeeping, honey production, livelihood impact, and other areas of concern to both groups." This would be done through information sharing, volunteer work, and targeted fundraisers – funds would not come out of LCBA's regular association dues.

At our June business meeting, the board will share a draft memorandum of understanding for initial discussion with our membership, as well as give details about the proposed volunteer work involved. There will be a vote on the MOU at our July potluck meeting or possibly our August monthly meeting, depending on feedback from KiReeco. For more information about KiReeCo, visit their website: www.kireeco.wordpress.com.

Above, new beekeepers in Kisii's Marani community display new hive bodies.

Bees in the News

Thanks to Steve Norton, Pat Pringle, Marcelle Stenzig, Norm Switzler, Tommi Trikosko, and Sherri Underhill for sending articles.

"Honeybees in East Africa Resist Deadly Pathogens: Bees in Kenya stay healthy despite parasites and viruses that collapse U.S. and European hives": 17 Apr 2014, National Geographic

Varroa mites were found among native African bees in Kenya in 2009, but according to a study just published in PLOSOne, the Kenyan bees – like the Africanized hybrids found in Central America and the U.S. southwest – seem resistant to them. These bees are also resistant to Nosema, just found in Kenyan colonies. Entomologist Elliud Muli, senior lecturer in the Department of Biological Sciences, South Eastern Kenya University, together with a Penn State research team, surveyed colonies in "all of Kenya's major ecosystems: savanna, mountains, tropical coast, and desert . . . measur[ing] the sizes of hives and the numbers of bees and test[ing] them for parasites and pesticide contaminants," and reported amazement at the bees' "resilience" despite the prevalence of both the mite and the microsporidian.

The researchers asked what could explain that resilience: genetics, or relative lack of management? If genetic, potentially selective breeding could help bees elsewhere. However, Kenya's different farming practices may be responsible: "so far, African bees live relatively free of human input. The study found very low levels of just a few pesticides in Kenyan hives, when there were any at all. Beekeeping in Kenya is typically a small-scale family affair done for honey; most crop pollination still relies on wild colonies. Bees colonize hollow logs and keepers mostly leave them alone, as is the traditional way." Kenyan bee colonies are not manipulated, rented out, or trucked for commercial pollination. The study argues that "Kenyan beekeepers . . . should copy Western practices as little as possible . . . and in particular refrain from treating them with pesticides even though Varroa and Nosema have crept in."

Above left, an African queen; right, Apis mellifera scutellata (photos, National Geographic)

Also, unlike western queen breeding practices, Kenyan queens come from "natural swarms." The Penn State team says that "the wild Kenyan bees have their own resistance. . . It would be a mistake to mess with that." For Kenyan bees, "it's survival for the fittest, and mother nature seems to be getting it right . . . She's giving us a broad genetic pool of honeybees capable of dealing with any environmental shocks on their own."

To read more, visit: http://news.nationalgeographic.com/news/2014/04/140416-honeybees-africa-kenya-disease-nosema-varroa-resistance-genetics-pesticides/?rptregcta=reg_free_np&rptregcampaign=20131016_rw_membership_r1p_us_dr_w#close-modal

"Report Says Fewer Bees Perished Over the Winter, but the Reason Is a Mystery": 15 May 2014, *The New York Times*

The USDA/BeeInformed.org annual survey, sampling more than 7200 beekeepers, has found that over the winter of 2013-14, managed bee colony losses fell to 23.2% nationally, in contrast with 30.5% in 2012-13. Dennis vanEngelsdorp, University of Maryland entomologist, said that while "It's better than some of the years we've suffered . . . it's not a good number. We've gone from horrible to bad." Dr. Jeff Pettis, head of the federal bee research lab in Beltsville, Maryland, noted, "one year does not make a trend." (*American Bee Journal* reports 18.9% as the "level of loss that beekeepers say is acceptable for their economic sustainability"; 29.6% has been the average annual loss measured since 2006.)

Researchers aren't sure why bees fared better over the 2013-14 winter. Dr. VanEngelsdorp noted that over the past three years, colony collapse disorder – mass disappearances of bees from colonies – hasn't been the main event in bee losses he's seen in the field. Rather, he's observed a witch's brew of problems challenging both managed and feral bees: nosema, viruses, mites, pesticides, "extreme weather," and "poor nutrition tied to a loss of forage plants." What of neonicotinoids? Both Pettis and vanEngelsdorp see "the interplay of parasites, illness, food sources and pesticides" as critical to explore.

Of all strategies for supporting bees, vanEngelsdorp has observed that beekeepers who treat for Varroa are losing substantially fewer colonies than those who don't: "those who treat them four or five times a year do better than those who treat them only once or twice."

Honey bee (Loskutnikov, Shutterstock)

One silver lining in the bee loss story may be that "colony collapse disorder and other pressures have made beekeepers focus more intently on maintenance of their colonies," according to Eric Mussen of the University of California, Davis. "People are being forced now to look more carefully at their bees," he said. "If you don't take care of them, you lose them."

To read more, visit: http://www.nytimes.com/2014/05/16/us/honeybees-report.html?emc=eta1. For the full study at BeeInformed.org, visit: http://beeinformed.org/results-categories/winter-loss-2013-2014/ . A Dutch study, too, has shown declining honey bee over-wintering mortality: a phone survey among beekeepers in the Netherlands found only 9.2% losses, after much higher losses in recent years. Like the U.S. study, there was no one clear cause, though it was observed that beekeepers are paying sharper

attention to readying colonies for winter. For more on the Dutch study, visit: http://us1.campaign-archive2.com/?u=5fd2b1aa990e63193af2a573d&id=7b6be62e15&e=e9ff21e0bb

"Scientists May Have Finally Pinpointed What's Killing All The Honeybees": 13 May 2014, *Yahoo News*

A hotly contested Harvard University study connects colony collapse disorder to sub-lethal doses of neonicotinoid pesticides." Dr. Chensheng Lu and his team examined "how low doses of two neoniotinoids — imidacloprid and clothianidin — affected healthy bee hives over the course of a winter." The paper was published May 9 in the *Bulletin of Insectology*.

Since Lu found no difference in the number of infections between colonies that didn't have long-term exposure to neonicotinoids and those that did, he concluded that rather than "compromising the bees' immune resistance to pathogens, . . . [the pesticides] are causing some other kind of biological mechanism in bees that in turn leads to CCD."

In the 2012-13 study, researchers fed colonies "high fructose corn syrup laced with" imidacloprid and clothianidin, then compared their winter survival to those not exposed to the pesticides. By spring, half the neonicotinoid-exposed colonies "had abandoned their hives" and those that still had bees were in bad condition, with "very small" clusters "either lack[ing] queen bees or developing bees." In contrast, "only one of the untreated colonies was lost, and in that case the bees' bodies were actually inside their hives and showed symptoms that appeared to be caused by a type of parasite."

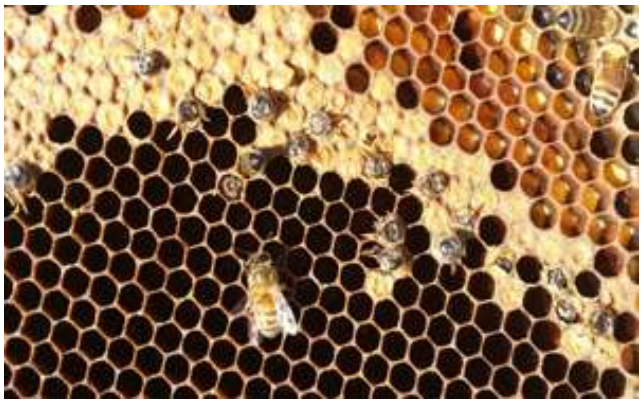
Internet Bee Meme

These findings replicate a 2010 study by Lu that tested just imidacloprid: 94% of those colonies died out, but that could have resulted from 2010's "colder winter, which stresses the bees and exacerbates the effects of pesticides." Lu and colleagues suspect that the neonicotinoids contribute to CCD through "impairment of honey bee neurological functions, specifically memory, cognition, or behavior," making bees unable to find their way home and explaining the lack of corpses in the home colony.

Other researchers dispute Lu's findings, citing the "small sample size" and arguing that bees abandon hives for many reasons not controlled-for in the study. Others argue that commercially available HFCS doesn't contain neonicotinoids: Dr. May Berenbaum, University of Illinois' head entomologist, said that "undermines the premise of bees being exposed to pesticides through the food provided by beekeepers."

Other critics note that though the French banned neonicotinoids in 2009, French beekeepers still lose hives to CCD. *The New York Times* article, above, reported Bayer's criticism that Lu "used dosages of the pesticide 10 times greater than what bees might encounter in the wild." Lu countered that "Bayer should reveal what it believes an "environmentally relevant" level of the pesticide should be."

To read more, visit: http://finance.yahoo.com/news/scientists-may-finally-pinpointed-whats-221000439.html



Above, dead bees and deformed brood after bee kill in California almonds (American Bee Journal)

"What Happens In Almonds Doesn't Stay In Almonds. This Year's Devastating Bee Kill In California Hurts Apples, Cranberries, Blueberries…and Beekeepers" 3 Apr 2014, *Bee Culture*

Misapplied pesticide tank mix may have resulted in 60% losses among honey bee hives hives placed in affected almonds, according to the Pollinator Stewardship Council. On March 24, representatives of the EPA, PSC, and American Beekeeping Federation met: over 70 beekeepers attended (some in person, some via conference call). PSC reported that "a poll taken of the seventy-five beekeepers at the meeting showed 80,000 colonies damaged: 75% of them severely damaged. Additional reports place an average loss of 60% of hives in almonds were impacted. Of that 60%, 40% lost adult bees and had dying brood, 20% of the hives were dead completely. These losses were experienced by beekeepers who wintered in California, as well as those who brought their bees into almonds from southern states."

At issue: labeling language for neonicotinoids and fungicides. The tank mix suspected of the bee kills was applied "per the label," but other bees may have been damaged from drift. Also, although less damage to pollinators results from applying pesticides and fungicides at night, "this year some practices changed, and bees were heavily impacted." PSC reported that "one beekeeper who pollinates Washington apples after almonds was short 1200 hives due to his losses during almond pollination."

At the meeting, according to the PSC, "EPA listened politely, but made no promise to do anything, stating that changing label wording is a long and drawn out process, and one that cannot be done quickly. Beekeepers did make promises: promises to add a pesticide surcharge to pollination contracts next year; promises that if no enforceable change to labels is made before next years' pollination to stay in Georgia or Florida and make honey in a safe environment rather than risk another season of severe hive damage. Beekeepers asked EPA for two things: adding a statement on the label instructing applicators when and how to apply pesticides to not damage pollinators; and curtail the use of tank mixing."

To read more, visit: http://home.ezezine.com/1636/1636-2014.04.03.11.49.archive.html

“Bee Biodiversity Boosts Crop Yields”: 9 MAY 2014, *American Bee Journal*

When different kinds of bee species pollinate blueberries, the result is more seeds, bigger berries, and substantially higher fruit production, according to a new study from North Carolina State University. Dr. Hannah Burrack says the study shows "the functional role of [bio]diversity." Burrack and colleagues studied “honey bees, bumble bees, southeastern blueberry bees, carpenter bees and a functionally similar collection of species that they termed small native bees.” For each added bee species, “farmers saw an increase of $311 worth of yield per acre. . . . For North Carolina blueberries as a whole . . . the benefit of each group [is estimated at] approximately $1.42 million worth of yield each year."

Co-author Dr. David Tarpy suggests that different bees’ behavior, partly in response to weather, leads to these benefits: blueberry bees don’t mind the rain, but honey bees work best in the sun. More bee species means fewer days in which no pollination takes place. Next steps will explore “what role crop management can play in fostering bee diversity at crop sites.”

To read more, visit: http://us1.campaign-archive2.com/?u=5fd2b1aa990e63193af2a573d&id=4151881f82&e=e9ff21e0bb

Above left, bee on blueberry plant (North Carolina State U); right, bumblebee (Huffington Post)

“A Quarter Of Europe's Bumblebees, Vital To Agriculture, Face Extinction”: 2 Apr 2014, *Huffington Post*

Habitat loss and climate change have put 16 of 68 European bumblebee species “at risk of extinction”: almost half the species are in decline. One species, Bombus cullumanus, is now “critically endangered”: its numbers have fallen over 80% since 2004, and this precipitious decline is ascribed to losses of “meadows with clover, its favourite forage.” 3 of the 5 key European pollinator species are bumblebees, “contribut[ing] more than 22 billion euros ($30.35 billion) to European agriculture a year." The EU plans to take action, perhaps “scal[ing] up” not only research, but restrictions on pesticides.

Honey bee diseases may be spreading to bumblebees: February’s Nature journal included a study which found deformed wing virus in both pollinators in the U.K. Habitat loss is a key factor, though: since some of the bumblebee species in danger live in the Alps or the Arctic, where honeybees are few, scientists conjecture that those losses are not from disease crossover, but climate change “shrinking” the bumbles’ habitats. *To read more, visit:* http://www.huffingtonpost.com/2014/04/02/europe-bumblebees_n_5075547.html

New Feature: Photos by Our Members

Many of our members have great shots of their photogenic bees. Care to share? Please send yours to Susanne.beekeeper@gmail.com – I'll be sure to credit you. Bee sure to include a title!

Below, "Being Greeted by Her Sister"– a worker's emergence into the world, captured by Rick Battin:

“The flower spider is tucked inside the flower, but you can see its legs above the bee. I thought that was the stinger at the bottom, but it's the lady’s leg with a bit of dew or nectar on it. You can see her little claws at the tips of her legs. The orange blob is cherry pollen packed into her "baskets," which is actually a group of long hairs on her hind legs.” ~~ Rick Battin at Grouse Hills Orchard

Ideas to Ponder: Inexpensive Bee Suit Alternatives?

by Mel Crist

Above, Mel inspects his top bar hives wearing his low cost bee suit (photos courtesy of Mel).

"Many beekeepers I have talked to have had bee suit failures -- mainly the mask. Also, the suit itself is hot in the summer. For families interested in beekeeping, the cost of a typical bee suit can stretch the budget thin if several family members are involved. I have family members and grandchildren that won't get any closer to the bees than a telescope on the back porch (some of my family members are real weenies when it comes to bees). An idea to ponder is how to come up with bee protection for several people without breaking the bank when making them buy their own is not an option.

"Archery hunters use mosquito head nets all the time. Since part of their hunting season comes during the warmer days of fall, it is a matter of using a head net or getting eaten. One of my favorite "go to" places, sportsmansguide.com, has several mosquito head nets for $4.99 to $14.99.

"I have tried many head nets for hunting. My favorite is the funky green one with wire ring around the middle. The wire ring holds the net away from your face and it has elastic around the neck hole. It folds flat and is easy to store. It works great for many biting bugs. I didn't even consider anything else for bees. I figure if a mosquito or deer fly can't get through, a bee won't either.

"There is a lightweight disposable hooded chemical coverall with elastic arms and legs bands. Workers use them when spraying fruit trees in orchards or handling chemicals in manufacturing. If you're

careful putting them on and taking them off, they can be used many times. Used with the head net, it makes a cool, easy to carry bee suit.

"I bought my first disposable 3XL coveralls for $8.00 over a year ago and I am still using them. However, I decided I needed some extras since my adult children show an interest in my bees, and in case I rip mine up beyond duct tape reparability. I bought several of these coveralls from zorotools.com for $6.00 each. It's best to buy them a size larger than your normal size so that they fit over a light jacket or sweatshirt. They come in sizes small to 3XL. I am 6'4" and weigh 275 lbs., and the 3XL fit me just fine over my clothes. I wear over the ankle moccasins with the suit. I don't have to take my shoes off to put it on.

"The Zoro Tools coveralls are the same quality of breathable, water- and chemical-repellent plastic as the first ones I bought. They zip up to the mouth too, so they partly cover your face. The chemical suits are more durable than the other suits offered. I don't know if they would withstand crawling under a house, but for normal work around hives, they're great. Duct tape helps with any small tears.

"I have used this bee suit a lot. I have been covered in bees, but not yet stung. The hood on the chemical suit makes the difference. If people want further protection for a child or themselves, adding a light dust mask over the face would do the trick. Taping the zipper closed to keep the mouth area from unzipping would be a good safety precaution, too. I have not had a problem, though.

"I also bought elbow-length rubber gloves with elastic closure from Harbor Freight for $4.99. The only drawback is that they are blue. Powdered sugar will whiten them up if blue is a problem. They will work nicely for a hive helper -- digging in walls or around bee retrieval sites. I like the half calf skin, half canvas gloves to work the hive. The rubber ones are a little stiffer.

"Just say'n . . . Remember, every day is a good bee day, just some are better than others."

Honey Lemon Avocado Dressing

Looking for a new dressing for salads or tacos? Try this from the National Honey Board:

Ingredients: 1 avocado; 2 Tbs. lemon juice; 2 Tbs red wine vinegar; 2 Tbs honey; 2 Tbs extra virgin olive oil; ½ cup water; ¼ cup cilantro, chopped

Process: Combine all ingredients together in a blender until smooth. Use & enjoy!

(Photo, National Honey Board)

ANNOUNCEMENTS & HELP WANTED

Varroa Mites Webinar: Dr. Gloria DeGrandi-Hoffman's webinar focused on "provid[ing] the most-up-to-date information on Varroa to help you make better decisions for controlling this mite in your colonies" has been recorded and posted on the University of Arizona website: http://gears.tucson.ars.ag.gov/

NEWS FLASH ~ LCBA IS ON FACEBOOK! Yes, it's true….thanks to Membership Coordinator Tomme Trikosko, we have another web presence. Take a look, post information, links, photos, or simply "Like" us on Facebook! This is a great opportunity to post questions and get (relatively) quick answers.

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

June 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.

June 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)