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January 2017 LCBA Newsletter

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

UPCOMING EVENTS

Saturday, January 7: Getting Started in Beekeeping – A Free Orientation



New Beekeeper Reena Schiele at our May 2016 Hive Inspection Workshop

When: 10 a.m. to noon

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

What: Do you have friends who are interested in keeping bees, but not quite sure what's involved? Please tell them about this free orientation! LCBA beekeeping instructors Peter Glover and Susanne Weil will cover benefits of beekeeping, "bee biology 101," equipment needed, how to set up your apiary, what beekeepers do over the course of their first year, getting and managing bees, harvesting honey, parasites and diseases, & preparing for over-wintering.

This Orientation is also a preview of LCBA's Beginning Beekeeping Class ~coming this January & February (see below) - offered through Centralia College's Continuing Education Program.

Questions? Call 360 880 8130; email secretary@lcba.community

Christmas Tree, Holiday Lights, & Styrofoam Recycling

December 26 - January 11

The Lewis County Transfer Station is again offering this free service. Trees will be turned into mulch instead of gumming up our local landfill. Just take your recycleables down to 1411 S. Tower Ave. Sun - Fri, 10 a.m. to 4 pm, or on the Saturdays, 9 a.m. to 4 pm.



2015 Tree Recycling at the Lewis County Transfer Station



Also at our January 12 meeting: Youth Scholarship Drawing!

We saved some drawing items so that our members who had to stay home on our 8th Annual Holiday Potluck get a chance to play & support our Youth Scholarship Program. We'll have a 50 pound bag of sugar from Reicherts' Distributing, a nuc box from Dan Maughan, \$50 gift certificate to Reichert's Meats.

***Thursday, January 12 ~ LCBA Monthly Meeting:
"Life As a Migratory Beekeeper" – Gottfried Fritz***

When: 6 – 8:45 p.m.: Social Time, 6 to 6:30 p.m.; 6:30-7:30, presentation; 7:30, break; 7:45-8:45 business meeting & Beekeeping Q&A.

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

Speaker: Longtime beekeeper & LCBA mentor Gottfried Fritz will explain what prompted some beekeepers in the 1960s to start seasonal migrations, and relive some exciting life experiences that came his way because of being involved in those treks. **Also: Short business meeting & "beekeeping Q&A."**



Above, LCBA President Kevin Reichert teaching a lesson at LCBA's 2016 Beekeeping Class.

Saturdays, January 21, 28, February 4, 11, 18, & 25

LCBA's Next Beginning Beekeeping Course: "Your First Year of Beekeeping"

When: 6 Saturdays, 9 a.m. to noon

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

Course Description: This class is designed to help beginners learn to keep bees successfully in southwest Washington's unique conditions. Topics include basic bee biology/behavior, equipment & apiary set-up, seasonal management, identifying & managing parasites & diseases, honey harvesting, over-wintering, & more. Students completing the course earn LCBA's diploma. This course is part of Centralia College's Continuing Education Program.

Registration Begins Early December: visit our website for the registration brochure (http://www.lewiscountybeekeepers.org/upcoming_events) or ask for one at a meeting.

January 31: Basic Composting ~ Lewis County Extension

When: 6 to 8 p.m.

Where: Old Chehalis Courthouse, 351 N.W. North St., basement meeting room.

What: LC Extension writes, "If you have ever tried composting unsuccessfully, or if you want to learn how to start, this workshop is for you. Composting is part art and part science, kind of like baking a cake. We'll demystify that process and help you get started producing good quality compost for your garden and landscape."

Feb 4 & Mar 4: Small Farm Success: 2 workshops on Business Plans & Marketing Basics offered by Lewis County Extension

Saturday Feb 4 & March 4, 9:30 am to 3:30 pm, at the old Courthouse in Chehalis. For more details, prices, & registration information, visit: <http://extension.wsu.edu/lewis/wp-content/uploads/sites/13/2013/08/2017-lew-cow-small-farm-success-regis-brochure-1.pdf>

Thursday, February 9 ~ LCBA Monthly Meeting:

New Long Langstroth & Observation Hive Designs – John Edwards, Ruhl Bees



WHERE – ONE TIME LOCATION CHANGE – CENTRALIA COLLEGE, WALTON SCIENCE CENTER, ROOM 121

When: 6 – 8:45 p.m.: Social Time, 6 to 6:30 p.m.; 6:30-7:30, presentation; 7:30, break; 7:45-8:45 business meeting & Beekeeping Q&A.

March 9 Monthly Meeting – Package Bee Sales.

More Details Coming in February newsletter & at our February 9th meeting!

Thursday, December 8 ~ LCBA's 8th Annual Holiday Potluck



Above, after dinner conversation during the Youth Scholarship drawing. Left, Steve & Cheryl Howard again brought the fir boughs & ornaments for table decorations.

50 Beekeepers braved the snow for LCBA's 8th Annual Holiday Potluck at Borst Park Kitchen #2, where we shared good food & warm fellowship. Thanks to our members' generosity, we raised \$454 for LCBA's Youth Scholarship program with our fundraising drawing! We have 3 new students in the program for 2017: Adam Claridge, a 9th grader from Tenino; Emily Ecklund, a 7th grader from Centralia; and Rylea Powell, a 6th grader from Centralia. One of our two 2016 Youth Scholars, Josiah Cowin, talked to the group last night about his first year in beekeeping. Pictures follow, along with thanks to our donors . . .



Left, LCBA President Kevin Reichert & VP Bob Harris (Bob won a chocolate bee lollipop from Katie's Candies of Chehalis). Middle, Dakota helped Kevin & Rick at drawing time. Right, Josiah Cowin, one of our 2016 Youth Scholars, told the group how his fascination with bees has grown over the past year & shared some of his bee inspecting adventures with mentor Gottfried Fritz.

Many thanks to donors from our community - Beeline Apiaries of Rochester donated 2 \$25 gift certificates . . . Reichert's Choice Meats donated a \$35 gift certificate . . . the Farm Store donated a \$50 gift card . . . The Pearl Cafe donated a \$25 gift card . . . Jeremy's Farm to Table Restaurant donated a \$25 gift certificate . . . the Tiki Tap House donated a gift card for a free pizza . . . Copy Depot/Precision Printing donated a pair of LCBA logo mugs . . . Kaija's Garden & Pet donated a Christmas ornament . . . Katie's Candies of Chehalis donated a box of salted caramels. **Thanks, too, to our members who donated lots of fun items**, starting with Community Outreach Coordinator Dan Maughan's cedar deep hive box & robbing screen. There were bee-themed holiday lights, pollen patties, lecithin for DIY Honey-B-Healthy, & lots more. All of you, plus members who bought tickets – make our Youth in Beekeeping Scholarship Program a reality!



Left, Cody Warren won a set of pollen patties (nice shirt, Cody!). Middle, Jeanne Reichert won one of the LCBA logo mugs donated by Copy Depot/Precision Printing of Centralia. Right, Tracy Chilelli won one of the \$25 gift certificates from Beeline Apiaries of Rochester. Tracy and her husband Bill Barr donated the water & pop for our potluck refreshments.

Speaking of our members, many thanks to our potluck committee, who plowed through the snow to get everything ready. Steve & Cheryl Howard brought fir boughs that made the hall festive (& smelled great!). Bill Barr & Tracy Chilelli donated water & pop. Treasurer Rick Battin kept things organized for our drawing. Thanks to them & Peter Glover, Kevin & Jeanne Reichert, Larissa Maughan, Pat Sturgill, Bob Harris, Mel Grigorich, and Susanne Weil for setting up the hall. To members who couldn't make it because of weather - we missed you!



Above left, Education Coordinator Peter Glover won the cedar deep hive box made & donated by Dan Maughan. Middle, Dan, our Community Outreach Coordinator, and Treasurer Rick Battin, with their WASBA Journeyman Beekeeping certificates. Dan & Rick are 2 of our 5 Journeyman graduates – Pamela Daudet, Terrie Phillips, & William Pittman will be honored at our January 12th monthly meeting! Right, Gordon Bellevue won the nice robbing screen also donated by Dan.

December Business Meeting Notes

Treasurer's Report: Treasurer Rick Battin reported that with the \$454 raised by tonight's drawing, the Youth Scholarship account balance is now \$2,423.41. This will cover our 3 new 2017 Youth Scholars and help us get started on fundraising for 2018. As President Kevin noted, we want to run the scholarship program in the black at all times so that we do not make a commitment to a child that we then can't live up to. Rick reported that our main account balance is 4,943.34, though there will be about \$500 of expenses to be paid by the end of the year, including room rentals at the college.

Proposed Bylaws Revisions: The bylaws revisions PASSED by a vote of 30:1 in favor. The new bylaws are now posted on our website – on the home page, click on “Constitution and Bylaws.”

Proposed Dues Increase: Members voted on a dues increase for 2017 of either \$16 (bringing annual dues to \$40) or \$12 (bringing annual dues to \$36). **Members voted in favor of the \$16 increase:** 20 votes were cast for \$16, 10 votes were cast for \$12. The board thanks our members for this support for our club.



Above left to right: Lorna Shelton won the \$25 gift certificate to Jeremy's Farm to Table Restaurant. Larissa Maughan won a box of jars for honey bottling. Kimo Thielges won several bottles of lecithin to use in making his own Honey-B-Healthy. Linda Gorremans won the \$50 gift card to The Farm Store.

2017 Board Officers: Board officers for 2017 are: President, Kevin Reichert; Vice President, Bob Harris; Secretary, Susanne Weil; Treasurer, Rick Battin; Community Outreach Coordinator, Dan Maughan; Education Coordinator, Peter Glover; Mentorship Coordinator, Martin Stenzig. Board officers' contact information is on our website: on the homepage, click on the “board of directors” link. In 2016, Vice President, Secretary, and Education Coordinator were up for election for 2-year terms; in 2017, the other offices will be open. The 2017 nominee slate was sent to members via email in October and announced at the November meeting. As no other nominations were made by November 15, per bylaws, these officers were *de facto* re-elected.

Apiary Committee: Kevin announced that Phil Wilson, Cody Warren, Steve Howard, & Bob Harris are working on a budget for a grant application that the board hopes to make in February to help get equipment for our new club apiary at Bob's Rose of Sharon Farm. Thanks to Phil for finding us two grant opportunities! Peter Glover pointed out that to make this a true demonstration & teaching apiary, we will want to host diverse hive types – not only standard Langstroth hives, but foundationless, top bar hives, and possibly even a Long Langstroth hive.

**Important Winter Bee Care Reminder –
Keep Entrances Open & Free of Dead Loss!**

As our bees gradually reach the end of their natural lives and die off through these winter months, it's important now & then to check that hive entrances are open. If a build-up of dead bees block those entrances, the rest can't get out to make cleansing flights, & then poop in the hive boxes can help promote disease. It's a good idea to sweep off the bottom boards with a twig; it also helps to flip entrance restrictors so that the opening is not flush with the bottom board, giving live bees easier access to the outside if there is a buildup of detritus.



Bee, Bee, It's Cold Outside!

(photo posted on Facebook by Kiann Meloche of the Cow-Lewis Beekeepers)

SPECIAL ANNOUNCEMENT FROM LEWIS COUNTY EXTENSION

Lewis County "Fresh From the Farm Guide" –

Beekeepers, would you like to list your honey or any other farm products?

LC Extension writes: this is "a partnership between the Lewis County Farm Bureau, WSU Lewis County Extension and Lewis County" to help "both local and visiting folks to find out what terrific farms, farm products and locally sourced restaurants we have to offer in Lewis County." For an online application, visit the lewis.wsu.edu webpage, scroll down and find the link; call 360-740-1212; or email: sgray@wsu.edu or drop by your extension office.

“Comfort Food” Honey Recipes For Cold, Wet Weather

Courtesy of the National Honey Board

<http://www.honey.com/blog/2016/detail/warm-your-home-with-12-honey-inspired-comfort-food-recipes>

Steamy Creamy Tomato Soup with Honey & Hot Sauce



Ingredients:

2 cans (14-1/2 oz. each) - crushed tomatoes in pureé

3/4 to 1 teaspoon - hot sauce

3 Tablespoons - honey

1-1/2 cups - half-and-half

(Photo: Creamy Tomato Soup w/Crostini, Nordstrom Café, Vmiramontes, Flickr.com)

Directions: Pour tomatoes in a large saucepan. Add half and half and 1/2 cup cold water. Bring to a boil, stirring constantly. Add honey and lower heat to medium. Cook 3 minutes, stirring constantly. Add hot sauce and one teaspoon of salt. Cook 2 minutes longer. Serve hot.

Honey Joes

Ingredients:

1/4 cup - chopped onions

1/4 cup - chopped celery

1/4 cup - grated carrots

2 Tablespoons - vegetable oil

1 lb. - ground turkey or beef or lamb

1/2 cup - tomato paste

1/4 cup - honey

3 Tablespoons - water

1 Tablespoon - vinegar

2 teaspoons - Worcestershire sauce

1-1/2 teaspoons - chili powder

4 - hamburger buns

Salt and pepper, to taste



(Photo, National Honey Board)

Directions:

In a large pan over medium heat, sauté onions, celery and carrots in oil until soft. Stir in turkey; cook 5 minutes, stirring frequently, until turkey is browned and crumbly. Stir in remaining ingredients, except seasonings and hamburger buns. Simmer, covered, 3 to 5 minutes. Season to taste with salt and pepper. Divide mixture evenly between hamburger buns to serve.

Grilled Dubliner Cheese, Bacon, Dill Pickles, and Honey Sandwich

Ingredients:

4 slices - bacon
8 slices - (scant ½-inch-thick)
rustic bread, preferably whole wheat
2 tablespoons - melted butter
1/4 cup - honey
6 to 8 ounces - Dubliner or other creamy
Cheddar cheese, thinly sliced with a cheese plane
8 slices - dill deli sandwich pickles, blotted dry



Directions:

Place the bacon in a large cast-iron or heavy-duty nonstick skillet and cook over medium heat, turning, until crisp. Drain on paper towels and cut slices in half. Let the pan cool, discard the bacon fat, and wipe clean. Spread one side of each slice of bread with melted butter. Place 4 slices, buttered side down, on a work surface. Spread each unbuttered side of the bread slices with about 1 tablespoon of honey. Top each with a ¼- to 1/3-inch slice of cheese covering the surface, 2 half-slices of bacon, and dill pickles, cut to fit. Top with the remaining bread slices, placing them buttered side up.

Heat the skillet over medium heat until a drop of water sizzles upon contact. Add the sandwiches and adjust the heat to medium-low. Place a lid just a bit smaller than the skillet directly on top of the sandwiches. Cook the sandwiches for about 5 minutes, until the cheese begins to melt and the bottom slice of bread is golden brown. Using a wide spatula and holding the top of the sandwiches in place with fingertips, carefully turn them and brown the other side for about 5 minutes, adjusting the heat as needed to avoid overbrowning. Transfer sandwiches to a cutting surface. Let cool slightly and cut them in half before serving.

Chocolate Walnut Fudge with Honey – National Honey Board

Ingredients:

1/2 cup - pure honey
1 can (14 oz.) - sweetened condensed milk
1/4 teaspoon - salt
12 oz. - semi-sweet chocolate chips
4 oz. - bittersweet chocolate, coarsely chopped
1 cup (4 oz.) - coarsely chopped walnuts

Directions:

Line an 8 x 8-inch pan with foil; butter and set aside. In medium saucepan, combine honey, sweetened condensed milk, and salt; mix well. Bring mixture just to a boil, stirring frequently. Lower heat to a simmer. Add chocolate chips and bittersweet chocolate, stirring constantly, until chocolate melts completely and mixture is smooth. Stir in walnuts. Pour immediately into pan and smooth top. Let cool; refrigerate until cold. Cut into 25 pieces. (Photos this page – National Honey Board.)



“Using the Good Name of Honey”

Guest Column by Dr. Dewey M. Caron

Did you happen to catch the latest headline (Nov 2) from the Organic Consumers Association (OCA) <https://www.organicconsumers.org/> ? “Nonprofits File Lawsuit Against Sioux Honey Over ‘100% Pure’ and ‘Natural’ Labels on Products Contaminated with Glyphosate.”

They are using our precious product honey to make a point. Will our good product get trampled in the meantime?

Background: The OCA and Beyond Pesticides have filed a lawsuit in the District of Columbia Superior Court against Sioux Honey Association, following earlier filing of a lawsuit against Sioux in U.S. District Court for the Eastern District of New York for deceptive and misleading labeling of its Sue Bee and Aunt Sue’s honey brands. Sue Bee honey products are labeled “100% Pure” and “Natural.”

The lawsuit language acknowledges the difficulties beekeepers face. They “are often the victims of, and have little recourse against, contamination of their hives caused by pesticide applications in the fields where bees forage.” OCA International Director, Ronnie Cummins additionally states in the press release “Regardless of how these products came to be contaminated, Sioux Honey has an obligation to either prevent the contamination, disclose the contamination, or at the very least, remove these deceptive labels.” Sioux Bee, a producer-cooperative of over 300 members (www.suebee.com), includes many of the largest US honey producers as members. It was established in 1921.

The lawsuit is based on information obtained under a Freedom of Information request. FDA (U.S. Food & Drug Administration), in their initial testing for Glyphosate residues, found levels to 123 ppb (parts per billion) of glyphosate; some honey samples had none or only trace amounts below levels of quantification . Glyphosate, a known endocrine disrupter and, according to the World Health Organization, a probable human carcinogen, is the active ingredient in Monsanto’s Roundup® herbicide.

In addition to Sioux Honey, Quaker Oats was sued earlier this year on a similar claim regarding glyphosate residues. FDA found glyphosate residues in oatmeal cereals, including several types of infant oat cereal.

Carey Gillam, who first reported the glyphosate-in-honey story (Sept 9) in the Huffington Post updated her story November 2nd (see http://www.huffingtonpost.com/carey-gillam/more-bad-news-for-honey-a_b_12769698.html).

More Bad News for Honey as U.S. Seeks to Get Handle on Glyphosate Residues in Food

While many groups are likely to comment on the story, Gilliam quotes Sioux VP Bill Huser as saying “glyphosate is commonly used on farm fields frequented by bees, and the pesticide travels back with the bees to the hives where the honey is produced.” Sioux has not been notified officially of any test results by FDA. The most recent Huffington Post article by Gilliam additionally quotes Darren Cox, president of the American Honey Producers Association. “It’s a chemical intrusion, a chemical trespass into our product ... We have really no way of controlling

it. I don't see an area for us to put our bees..... They need to be able to forage in ag areas [but] There are no ag areas free of this product.”

Because there is no legal tolerance level for glyphosate in honey in the U. S., any amount could technically be considered a violation, In the EU, the level is 50ppb. According to unnamed sources within EPA “EPA is evaluating the necessity of establishing tolerances for inadvertent residues of pesticides in honey....“PA has examined the glyphosate residue levels found in honey and has determined that glyphosate residues at those levels do not raise a concern for consumers.”

The agenda of OCA and Beyond Pesticides is to get EPA to ban certain pesticides such as glyphosates. The two groups, along with 4 beekeepers, from across the US, and several other groups have also filed suit in a court in Northern California asking EPA to also ban two neonicotinoid pesticides, clothianidin and thiamethoxam. The EPA, which is required to review every pesticide once every 15 years, promised a decision on glyphosate in July 2015, only to later push the deadline to end of 2015. It has still not ruled. Rule on the neonicotinoids are also overdue; their use has dramatically increased since the mid-2000s, at the same time beekeepers started observing widespread colony losses, according to the suit. WSU professor Charles M. Benbrook says data confirms there has been a dramatic increase in Roundup use “... globally, glyphosate use has risen almost 15-fold since Roundup Ready, genetically modified, glyphosate-tolerant crops were introduced in 1996” a 15 fold increase in the total volume of glyphosate applied to crops across the world.

In the glyphosate situation, the two groups, although well-intentioned, are seeking to use honey's good name toward accomplishing their agenda of a pesticide ban. Can our product withstand this latest insult to its good name?

What is Pollination Worth? The National Agricultural Statistics Service Has Published the “First Ever Cost Of Pollination Report”

Adapted from *Bee Culture*, 27 Dec 2016

NASS's Cost of Pollination Report compares and contrasts costs for 2015 and 2016. The short version: the cost of pollination is slightly higher, probably reflecting how bee losses have affected commercial beekeepers. However, there is variation from crop to crop and region to region. For the full report on all 7 U.S. regions, visit:

<https://usda.mannlib.cornell.edu/MannUsda/viewDocumentInfo.do?documentID=2008>

FYI: Washington is part of Region 5, which includes us, Alaska, Oregon, & Idaho. The primary crop pollinated in Region 5 is apples. Terms you need to know to read this report include:

Paid Pollinated Acres: Acreage that an operation paid money to be pollinated by honey bees.

Dollars per Acre: The average price paid by operations to pollinate an acre of crop. Acres pollinated for free or on a non-monetary basis were not included in this calculation.

Colonies Used: The total colonies used to pollinate a crop; regardless of ownership or if on a paid basis.

Dollars per Colony: The average price paid by operations to use a colony for pollination.

Colonies owned by the operation or used on a non-monetary basis were not included.

Total Value of Pollination: The total valuation of all pollination, calculated by multiplying the price per colony by colonies used.

Here is NASS's Executive Summary:

“Cost per Colony to Pollinate Almonds up 1 Percent from Previous Year In Region 6 & 7 [Arizona, California, Hawaii], the average cost per colony for almonds increased 1 percent from 165 dollars per colony to 167 dollars per colony in 2016. The average price per acre, however, decreased from 313 dollars per acre to 287 dollars per acre during that period. The total value of pollination for almonds decreased 3 percent due to less colonies used on almonds in 2016. Almonds were the highest valued crop in that region. The total value of all pollination in Region 6 & 7 for 2016 was 309 million dollars, up slightly from last year.

“Blueberries had the highest total value of pollination of crops reported in Region 1 [Connecticut, Illinois, Indiana, Iowa, Kansas, Massachusetts, Maine, Michigan, Nebraska, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Wisconsin] during in 2016. The price per colony for blueberries decreased 7 percent to 88.2 dollars per colony in 2016. The price per acre decreased 12 percent to 147 dollars per acre. The total value of pollination for blueberries in Region 1 for 2016 was 5.73 million dollars. The total value for pollination of all crops in Region 1 for 2016 was 18.5 million dollars, down 2 percent from a year ago.

“Blueberries had the highest total value of pollination of crops reported in Region 2 [Alabama, Delaware, Georgia, Kentucky, Maryland, North Carolina, South Carolina, Tennessee, Virginia, West Virginia] during in 2016. The price per colony for blueberries increased 6 percent to 53.7 dollars per colony in 2016. The price per acre increased 6 percent to 81.8 dollars per acre. The total value of pollination for blueberries in Region 2 for 2016 was 1.77 million dollars. The total value of pollination of all crops in Region 2 for 2016 was 5.12 million dollars, down 2 percent from previous year.

“Watermelons had the highest total value of pollination of crops reported in Region 3 [Arkansas, Florida, Louisiana, Missouri, Mississippi, New Mexico, Oklahoma, Texas] during in 2016. The price per colony for watermelons decreased 3 percent to 58.7 dollars per colony in 2016. The price per acre increased 23 percent to 59.5 dollars per acre. The total value of pollination for watermelons in Region 3 for 2016 was 1.82 million dollars. The total value of pollination of all crops in Region 3 for 2016 was 4.71 million dollars, down 13 percent from last year.

“Pumpkins had the highest total value of pollination of crops reported in Region 4 [Colorado, Minnesota, Montana, Nevada, North Dakota, South Dakota, Utah, Wyoming] during in 2016. The price per colony for pumpkins was 80.3 dollars per colony in 2016. The price per acre was 26.7 dollars per acre. Pumpkin estimates for 2015 were not published, so no comparison can be made with the previous year. The total value of pollination for pumpkins in Region 4 for 2016 was 201 thousand dollars. The total value of pollination of all crops in Region 4 for 2016 was 2.51 million dollars, up 30 percent from a year ago.

“Apples had the highest total value of pollination of crops reported in Region 5 [see above] during in 2016. The price per colony for apples decreased 2 percent to 51.5 dollars per colony in 2016. The price per acre increased 5 percent to 47.6 dollars per acre. The total value of pollination for apples in Region 5 for 2016 was 5.41 million dollars. The total value of pollination of all crops in Region 5 for 2016 was 14.7 million dollars, up 7 percent from previous year.”

For the rest of this 19 page report, click on the link above.

BEES IN THE NEWS



Above, new videos help guide beekeepers in combating Varroa mites (Honey Bee Health Coalition)

“Honey Bee Health Coalition Unveils Videos to Help Beekeepers Combat Devastating Parasites”: *American Bee Journal* 1 Dec 2016

The HBHC is giving beekeepers a new tool in the battle to help bees survive Varroa mite infestations. The videos are a companion to the HBHC’s “Tools for Varroa Management Guide” and give “step-by-step demonstrations” on how to monitor hives for mites and use an Integrated Pest Management approach that includes formic acid, essential oils, and more. To watch these new videos, visit: <http://honeybeehealthcoalition.org/Varroa/#videos><http://keystone.us10.list-manage1.com/track/click?u=5461780613c767b969ae49f97&id=85b4536bbf&e=0cdbb956a7> .

To see the Coalition’s “Tools for Varroa Management” handbook, visit: <http://honeybeehealthcoalition.org/Varroa/> .

Indoor Wintering Affects Varroa Mites and Honey Bee Nutrition, by Drs. Brandon Hopkins & Steve Sheppard, WSU, Pullman – via Fran Bach’s “Items for Beekeepers”

“Over-wintering honey bee colonies in California “holding yards” can be a challenging place to keep colonies alive and healthy during the winter months. Beekeepers need a place to stage bees that are easy to access for transport to almond orchards at the start of the pollination season. Currently a large number of commercial beekeepers stage colonies in California for the winter months. This provides them an opportunity to work colonies (feed, combine, treat, etc.) prior to almond pollination. However, there are a number of drawbacks to wintering bees in California holding yards. 1) Weather often permits bee flight activity that leads to significant robbing behavior, the spread of disease and constant loss of field bee. 2) The loss of field bees require constant brood production (Increased brood rearing season = increased Varroa mite production). 3) While colonies are in California there is a need for labor time/cost to perform Varroa treatment, feeding and hive inspections.

“As an alternative to California holding yards an increasing number of commercial beekeepers are turning to indoor storage of their colonies in potatoes sheds, fruit storage warehouses, and purpose built facilities to increase winter survival and still have access to move bees when needed. There remains little research on the effects different storage/overwintering conditions have on honey bee health. We recaptured painted bees emerged and installed in late fall after wintering in one of six conditions (4°C cold room, 4°C controlled atmosphere room, outdoors in

Yakima, WA and outdoors in Waterford, CA). Recaptured bees were analyzed for head protein content and the abdomens used for lipid measurements. Bees overwintered in the Controlled atmosphere room had significantly greater head protein and lipid weight than bees overwintered in California.

“During the past winter we exposed colonies to high CO₂ in comparison to atmospheric levels in 4°C incubators while collecting Varroa mite drops on sticky boards. Colonies wintered for 62 days at the high level of CO₂ had significantly greater mite mortality than hives at atmospheric levels. The evidence presented in this work provide a promising picture of indoor wintering and a viable alternative to California holding yards.”



Above, the now-controversial EpiPen (photo credit, Bee Culture)

“Mylan Launches Cheaper Version of EpiPen Allergy Treatment”: *Bee Culture*, 26 Dec 2016

After this past summer’s controversy and protest, the pharmaceutical company Mylan has decided to make a generic version of Epi-pen available for \$300 (for a two-pack), half the cost of the brand name version. Mylan will still earn millions in profits while keeping its monopoly on its life-saving Epi Pens. To read more, visit: http://www.bee-culture.com/catch-buzz-mylan-launches-cheaper-version-epipen-allergy-treatment/?utm_source=Catch+The+Buzz&utm_campaign=31213b5b7f-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-31213b5b7f-256261065

“You’re a Bee. This Is What It Feels Like”: *Bee Culture*, 8 Dec 2016

The Journal of Functional Ecology has created a fun, “choose-your-own-adventure” online game to let you experience a day in the life of a forager bee. “Researchers asked: What is a flower like from a bee’s perspective, and what does the pollinator experience as it gathers pollen? And that’s why we’re talking to you in the second person: to help you understand how bees like you, while hunting for pollen, use all of your senses — taste, touch, smell and more — to decide what to pick up and bring home.”

To play the game, visit this link: <http://www.nytimes.com/interactive/2016/12/02/science/bee-pollen-senses.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=second-column-region®ion=top-news&WT.nav=top-news>



Above, the robotic bee on a researcher's finger for scale. Photo credit: Bee Culture

“Creation of robot bee to pollinate crops”: *Bee Culture*, 20 Dec 2016

Robotic bees are here: developed by researchers at the Polytechnic University of Warsaw, this tiny machine is “designed to pollinate artificially; a miniaturized drone that is able to find a flower, collect its pollen, and transfer it carefully from the male to the female flower to fertilize it.” The little robo-bee has already been field-tested with good results and viable seeds. Engineer Rafal Dalewski sees it “as a ‘hopeful alternative’ to address the steady decline in the world bee population.” However, they have not been able, so far, to create a honey-producing robot. Dalweski adds that the robotic bee “is not intended to replace insects, but to help their work and complement it.”

Whether the robotic bee can surpass the natural kind in pollinating skill remains to be assessed. However, it “can be programmed to focus on a particular area and look for flowers of a particular type to pollinate.” The university plans to use prototypes of these robotic bees in 2017 and begin mass production by 2019.

To read more, visit: http://www.beeculture.com/catch-buzz-creation-robot-bee-pollinate-crops/?utm_source=Catch+The+Buzz&utm_campaign=fb3ff73f36-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-fb3ff73f36-256261065

“Honey Bee Memories: Another Piece of the Alzheimer's Puzzle?”: *American Bee Journal*, 9 Dec 2016

Scientists are studying how memory works in the relatively simple brains of honey bees in hope of learning more about how human memory crumbles in those suffering from Alzheimer's and dementia. Because honey bees observe, learn, and recall complex facts in the course of foraging - they “can count up to four, and orientate themselves by learning patterns and landmarks,” according to Dr. Stephanie Biergans, University of Queensland-Australia – they are helpful models for studying memory processes.

"We show that DNA methylation is one molecular mechanism that regulates memory specificity and re-learning, and through which experiences of the organism could be accumulated and integrated over their lifetime,"

When people remember something, there are molecular changes in their brains. Neurons form new connections and change old ones. This is the basis of our long-term memory. Scientists

have learned that when we experience environmental changes, processes called “epigenetic mechanisms” kick in: some genes express themselves differently, regulating how the genes express themselves, but without actually changing the genes. "We knew that DNA methylation is an epigenetic process that occurs in the brain and is related to memory formation," Biergans explains. "When we block this process in honey bees it affects how they remember."

In the University of Queensland experiment, two sets of honey bees were trained that they would get sugar when they smelled a particular odor. One set of bees got to do this over time; the other set only got the sugar plus smell pairing once. Then, “[u]sing an inhibitor compound, Biergans halted DNA methylation in some bees in each group. The bees' memory formation in the two groups were tested and compared, with and without, DNA methylation occurring. By changing the smell that accompanied the food, Biergans and colleagues also found that DNA methylation affects how a bee can re-learn.

"When the bees were presented with sugar and a smell many times together, the presence of DNA methylation increased memory specificity - they were less responsive to a novel odour. On the other hand, when only introduced to the combination once, DNA methylation decreased specificity," she summarises.”

Biergans noted that this strategy serves honey bees well: after all, if a bee only gets food from a flower once, why bother remembering it? In contrast, if every flower that smells that way yields great forage, then bees will look for those flowers and remembering their smell helps bees survive.

Biergans’ hope is that by pursuing this research, they will understand better how DNA methylation works to affect not just remembering, but forgetting, in human brains, too. We know that there may be “a genetic predisposition” for dementia and Alzheimers, but environmental triggers can make the disease emerge. If we can learn how these environmental factors work in bee brains, we may be able to apply the insights to human brains. To read more, visit:

<http://us1.campaign-archive2.com/?u=5fd2b1aa990e63193af2a573d&id=1a9baeb1b7&e=e9ff21e0bb> .

“Honey Bee Viruses in Wild Bees: Viral Prevalence, Loads, and Experimental Inoculation”: *Bee Culture*, 19 Dec 2016

A new study has shown that while 80% of wild honey bees tested had at least one of five common honey bee viruses. However, the “virus levels in the wild bees were minimal—similar to or lower than foraging honey bees and substantially lower than honey bees collected from hives.” Further, the wild bees may tolerate the viruses better: the researchers “found no evidence that these pathogens cause elevated short-term mortality effects.” The research is preliminary and more work “is greatly needed to assess effects on additional bee species and life stages.”

For a link to the complete study, visit: http://www.beeeculture.com/catch-buzz-honey-bee-viruses-wild-bees-viral-prevalence-loads-experimental-inoculation/?utm_source=Catch+The+Buzz&utm_campaign=c772cfc63f-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-c772cfc63f-256261065



Honey bee foraging for pollen (Dr. Elizabeth Nicholls)

“We knew this all along. Fresh pollen is better for honey bees than old pollen substitute. Now we have the numbers to prove it”: *Bee Culture* 30 Nov 2016

A new USDA research study has shown that how diet affects bacteria living in the guts of honey bees has a “strong link” to the health of the bees. University of Arizona scientists collaborated with Randy Oliver of ScientificBeekeeping.com. Different bees were fed “fresh pollen, aged pollen, fresh supplements, and aged supplements,” then euthanized and their digestive tracts analyzed. The researchers also looked at how the weight and size of the bees’ hypopharyngeal glands (which produce royal jelly), as well as their flight muscle weight (which shows “potential for work after the nurse bee transitions into . . . forager), as a way to measure how the different diets affected the bees’ growth.

Overall, the bees that did best were those fed the fresh pollen and fresh supplements: they had a lower mortality rate, more energy, and “lower levels of gut pathogens such as *Nosema ceranae*.” Pollen had a longer lasting “nutritional value” than supplement did, particularly for the aged sample: “Bees consumed significantly more aged supplement than aged pollen, but this didn’t translate into long-term benefits. For example, bees consuming aged supplement had plump nurse glands but suffered significant losses in flight muscle, suggesting that nutrition diverted to feed developing larva came at a significant cost to the bees’ own adult development. Poor development, in turn, can translate to early mortality or inefficient food collection when these nurse bees transition to the role of foragers.”

To read more, visit: http://www.bee-culture.com/catch-buzz-knew-along-fresh-pollen-better-honey-bees-old-pollen-substitute-now-numbers-prove/?utm_source=Catch+The+Buzz&utm_campaign=b2bb6e5722-Catch+The+Buzz+4+29+2015&utm_medium=email&utm_term=0_0272f190ab-b2bb6e5722-256261065

“Neonicotinoid studies submitted by chemical companies to European regulators will now be open to scrutiny.” – *Bee Culture*, 2 Dec 2016

The European Court of Justice (ECJ) has decided that the results of safety tests that chemical companies turn over to regulators must be made public. The “landmark” verdict will open years of research to public view. The data that emerge may have bearing on the EU’s review of the ban on neonicotinoids thiamethoxam, clothianidin and imidacloprid when the ban comes up for review early in 2017.

Bayer, Syngenta, and other manufacturers “objected to the disclosure of the material related to its pesticide products on grounds of commercial confidentiality,” but the ECJ decided that the public had a compelling safety interest in the results of the chemical companies’ research.

The case drew on an American incident in the fall of 2016 in which “Bayer and Syngenta had submitted studies to the Environmental Protection Agency (EPA) in the United States which showed that their neonic pesticides can cause harm to honey bees. The unpublished studies, which came to light using freedom of information rules in the US, went against public statements from both companies which played down the harm the chemicals cause to bees.”

Scientists caution that the data from the chemical companies, though important to review, is “far from ideal” because it as “carried out by those with a very clear vested interest in the outcome of the study. All evaluation of pesticides should be done by independent scientists.”

To read more, visit: http://www.beeeculture.com/catch-buzz-neonicotinoid-studies-submitted-chemical-companies-european-regulators-will-now-open-scrutiny/?utm_source=Catch+The+Buzz&utm_campaign=01116d97fc-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-01116d97fc-256261065

“Court ignores risks of neonic seed coatings, leadership left to states”: *Bee Culture*, 4 Dec 2016

The U.S. District Court in San Francisco has decided that the EPA does not have to regulate neonicotinoid pesticides used as seed coatings. Over 150 million acres of soybeans, corn, and other crops are planted with treated seed coats. Bees are exposed to these pesticides not only when the seeds are planted – because of “exposure to toxic airborne dust” – but also from residues that “persist throughout crops and in the soil and water many months later.”

Neonicotinoids not only can kill bees directly, but “are also linked to problems with reproduction, navigation and communication.” Ironically, the EPA says that the neonicotinoid “coatings don’t even have much benefit in preventing pest problems” in “most cases.”

The Center for Food Safety and Pesticide Action Network, together with farmers and beekeepers, brought the case. The District Judge stated that “The Court is most sympathetic to the plight of our bee population and beekeepers. Perhaps the EPA should have done more to protect them, but such policy decisions are for the agency to make.” CFS and PAN now urge states to “fill the void created by EPA’s lack of leadership.” For example, Minnesota has “implement[ed] science-based plans created through a transparent public process to protect bees by reducing neonicotinoid use.”

To read more, visit: http://www.beeeculture.com/catch-buzz-court-ignores-risks-neonic-seed-coatings-leadership-left-states/?utm_source=Catch+The+Buzz&utm_campaign=ae7c1bd59e-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-ae7c1bd59e-256261065

“Common insecticides are riskier than thought to predatory insects”: *Bee Culture*, 16 Dec 2016 Neonicotinoids, now “the most widely used class of insecticides,” were supposed to have “little to no” impact on predatory insects, when compared with “broadcast applications of commonly used pyrethroid insecticides.” However, a new Penn State study shows that neonics “significantly reduce populations of predatory insects when used as seed coatings”: a 10-20% decline. Lead researcher Margaret Douglas commented that “[p]redatory insects contribute billions of dollars a year to agriculture through the elimination of crop pest insects.”

Meanwhile neonic use has climbed, particularly for “large-acreage crop species like corn, soybeans and cotton. Neonics are usually applied to seeds as a prophylactic coating. When the seeds are planted, the insecticide enters the soil where some of it is taken up by plant roots. The chemical then runs systemically through the plant, protecting young seedlings from insect pests.”

Researchers used meta-analysis, a statistical approach that combines and compares results from over a thousand observations in 20 separate field studies performed in North America and Europe. Entomologist John Tooker commented, “Some studies show little influence of neonicotinoids presented as seed treatments on arthropod predators that are common in crop fields, whereas others show a strong influence of these seed treatments. By using a meta-analysis approach, we were able to combine the results of many studies to quantitatively reveal the overall influence of neonicotinoids on predator populations.”

Spiders were less affected than other predatory insects, which “suggests that neonicotinoids are reducing populations of natural enemies at least partly through their toxic effects rather than simply by reducing the availability of their crop pest foods,” said Douglas. “After all, insects are more susceptible to these toxins than spiders, whereas the two groups should be similarly affected by a lack of food.”

What should farmers do? Would it be “better or worse for predatory insects . . . [i]f they switch to broadcast applications of pyrethroids”? The researchers urge broader use of integrated pest management, “rather than universally deploying prophylactic tactics like insecticidal seed coatings” as the “best chance we have of conserving beneficial insect species while maintaining productivity in our agricultural systems.”

To read more, visit: http://www.beeulture.com/catch-buzz-common-insecticides-riskier-thought-predatory-insects/?utm_source=Catch+The+Buzz&utm_campaign=ddeb6bfbcf-Catch_The_Buzz_4_29_2015&utm_medium=email&utm_term=0_0272f190ab-ddeb6bfbcf-256261065

ANNOUNCEMENTS

Do You Sell Wax? If you are an LCBA member and would like to be listed on LCBA’s Buy Local Honey page, please email secretary@lcba.community with your contact information, prices, and a photo if possible.

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

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

That’s all for now ~ take care, & bee happy!~~ Susanne Weil, LCBA Secretary
(Secretary@lcba.community; 360 880 8130)