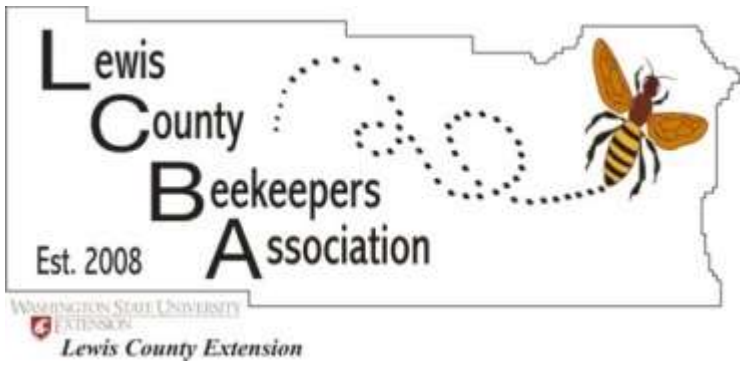

Visit LCBA Online: www.lewiscountybeekeepers.org

April 2013 LCBA Newsletter

In This Edition:

- **Upcoming LCBA Events**
- **Notes from LCBA's March 13th Monthly Meeting**
    - **Swarm & Colony Removals**
    - **Business Meeting ~ Package Bee & Nuc Order News**
    - **Beekeeping Q&A**
- **BeeInformed Survey – please help ongoing research on bee losses!**
- **Bees in the News**
    - **Neonicotinoids implicated in massive bee die-offs in U.S. agriculture**
    - **Neonicotinoid pesticides 'damage brains of bees': 2 new studies**
    - **Nanoparticles Loaded With Bee Venom Kill HIV**
    - **Bees gravitate to caffeine in nectar**
    - **World agriculture suffers from loss of wild bees**
- **Announcements**

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

UPCOMING LCBA EVENTS:

The board will set up more mentoring workshops for May and June, including opportunities to observe colony removals ~ check our website and watch for email announcements!

April 6: LCBA Mentor Orientation ~ 10 a.m. to noon, Lewis County Extension classroom

Want to help mentor new beekeepers? Come join us at our old monthly meeting space, the Extension classroom, 351 NW North Street, Chehalis WA, 10 a.m. to noon, for a workshop led by Mentorship Coordinator Gary Stelzner.

April 10: LCBA Monthly Meeting, 7 – 9 p.m., 103 Washington Hall, Centralia College.

Come early and talk bees at our social time, 6:30 - 7!

Topic: Getting Ready for Your New Bees and Other Spring Management Issues

April 13: LCBA Mentor Workshop: How to Inspect Your Hives – Mossyrock

When: 1 to 3 p.m.

Where: Mossyrock. For directions, please email Susanne.beekeeper@gmail.com or call 360 880 8130.

Learn how to check on your bees' condition without harming them. Mentors will give demonstrations on how to find the queen, confirm that she's laying, identify a good brood pattern, spot signs of bee diseases, and more.

April 20: Package Bee Pickup: Details TBA. ***For newbees ~ we'll demonstrate hiving techniques.***

April 27: LCBA Mentor Workshop: How to Inspect Your Hives - Winlock

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

Time: 1 to 3 p.m.

Topics: Learn how to check on your bees' condition without harming them. Mentors will give demonstrations on how to find the queen, confirm that she's laying, identify a good brood pattern, spot signs of bee diseases, and more.

May 8: LCBA Monthly Meeting, 7 – 9 p.m., 103 Washington Hall, Centralia College.

Social time 6:30 to 7 – come talk bees!

Topic: BeeInformed Honey Bee Loss Survey Data. Dr. Dewey Caron will be back to share the most recent research results on national and Pacific Northwest honey bee losses, as well as to survey us about how our bees have fared.

June 12, LCBA Monthly Meeting, 7 – 9 p.m.: Topic TBA.

June 12-13: "The Art of Queen Rearing," WSU-Pullman. This workshop will be led by Sue Cobey and WSU's APIS team. For registration information, visit http://entomology.wsu.edu/apis/ ; for the Queen Rearing course registration form, visit http://entomology.wsu.edu/wp-content/uploads/2012/11/QueenRearingWkshp2013.pdf?9d7bd4.

June 14-15: WSU-WSBA Bee Field Days, WSU-Pullman. WSU's honey bee research team partners with WSBA to sponsor "Bee Field Days" every other year; beekeepers from all over Washington are invited to WSU's Pullman campus for workshops on hive inspection, identifying bee diseases, learning how testing is done is APIS's laboratory, and more. Schedule & registration information about Bee Field Days will be posted on our LCBA website and announced in our newsletter when available.

July 10: LCBA Summer Potluck – Details TBA.

July 19: "The Art of Queen Rearing" - Mt. Vernon Agricultural Station. Sue Cobey & the WSU APIS team will offer "The Art of Queen Rearing" a second time – see above for registration information, or visit http://entomology.wsu.edu/apis/.

July 26-28: Pacific Northwest Treatment-Free Beekeeping Conference. Pacific University, about half an hour south of Portland. Tuition of $268 includes room and board. For more information, visit blisshoneybees.org.

October 3 – 6, 2013: WSBA Conference, Federal Way, WA. Please note new dates & location – the conference was originally slated for Oct 31 - Nov 2 in Seaside, OR. Updates - program, venue, registration info - will be posted when available.

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

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

NOTES FROM OUR MARCH 13th MEETING

Topic: Honey Bee Colony Removal ~ LCBA President Norm Switzler

Norm has been removing colonies for over ten years: it's a terrific opportunity to see how bees operate when they choose and maintain their own living space, outside of Langstroth hives. Norm has lost count of how many colonies he's removed, but, conservatively, he estimates that he gets at least 30 different calls in a year, and no two are the same. He gives most of the bees to others: within about the first two to three weeks of removal season, he has more bees than he really wants to manage. After LCBA started up in August 2008, Norm, Bob Harris, Dave Smith, Pat Swinth, Rob Jenkins, Jason Sherwood, and others formed the "Bee Team," a free service removing bees from Lewis County residents' structures. Bees are hived and given to new beekeepers or given a good home by a Bee Team member.

Salzer Valley Schoolhouse Removal: To start off, Norm narrated details of the historic Salzer Valley Schoolhouse job, July 19, 2009, since the Centralia *Chronicle*'s video helps people visualize what goes on in a removal (to see this, visit our website and click on "Swarm and Colony Removals," or go directly to YouTube: http://www.youtube.com/watch?v=Rc7thvqXtjM). The schoolhouse was supposed to be restored – but first, a massive colony of what were probably Russian hybrid honey bees had to be removed. Norm and the team took out at least eight feet of comb – the colony had nested high in the wall of the building, so comb was lifted down by those on ladders to waiting beekeepers below, who carefully cut the comb and skewered it into frames for hiving. Dave Smith ended up taking the bees back to Pe Ell after the stragglers flew into a box on a truck tailgate to get back to their queen. Your scribe highly recommends viewing this video!

July 1, 2012, Onalaska ~ Bees in house siding: Norm and a friend did a very different job, the second in the slideshow, on July 1, 2012 in Onalaska. (The slideshow is attached to this newsletter in a PDF file; it's also available on our website under the Newsletters link.) This one began with a tiny hole in the siding of a house, about two feet above ground level. From an overhanging gutter, water had trickled into the siding, the wood had deteriorated, and the bees had chewed around a pipe, then made their way into the floorboards, where they took up residence. Norm had to open the wall, working in a very small space, reaching in "Braille style" to get the comb out. Though Norm's working space was small, the colony was not: the comb extracted filled two laundry tubs. Two deep bodies and one super were removed, and a second super was left with three frames of comb and brood – these were taken the next day, after the remaining bees had been recruited into the box .

Seeking Queen Cells in Extracted Comb: Norm pointed out queen cells in the photos of extracted brood comb: it's a good idea to look for these cells and then, if there's a queen starting to grow, start a nuc box in hopes that she'll start a new colony. A good sized colony can be split into four if there's viable brood, bees, and enough queen cells. Norm saved the best comb saved for frames in what he hoped would be a manageable box, with frames and foundation in bottom box, and waited to see if the bees would work their way up to the top box. The goal would be to try to get the bottom box out within 2 years: that's the original colony comb, and it will have several years on it already – having been taken out of a wall, skewered, and fitted into frames by people (see below), it won't have the perfect orientation that bees construct for themselves on foundation.

Framing the Comb: Using the slideshow photos, Norm explained how to install the comb in new frames. First, the comb has to be cut to size and then carefully skewered with short banded spears, like bamboo skewers or even toothpicks, which can be fitted into holes drilled into the frames. First, it must be fixed on the ends where you can pin it; the middle is harder to fix firmly, but rubber bands and string can help hold the comb in place. You do lose a few cells when you pierce the comb, but the bees can repair them later. The skewers will provide sufficient hold till the bees re-anchor the comb themselves, within a couple of days. Norm was asked about the gaps in the comb filled into the frame: sometimes bees will fill in the holes in the comb/frames, sometimes not. The Bee Team tries to fill it in as best they can with existing comb. Most of the comb is discarded, though some can be saved so that the nectar can be put out later for bees to feed on.

Orienting the Comb in the Right Direction is Crucial for Brood Survival: In nature, bees build their comb so that it tilts faintly upward – this way, eggs don't fall out of the cells before they can be capped, and for this reason, it's important to keep that orientation when inserting comb into the frames. Orientation of the comb is also critical because, if you put it in sideways or upside down, you risk losing developing larvae– if a developing larva's sphericle is blocked, he/she would suffocate. For this reason, you don't want to upset or shake the comb.

Don Hershey asked how to handle the orientation problem when handing comb down, since some photos showed comb lying on tables. Norm said that you may have to lay the comb down on a table briefly in the midst of doing the removal, particularly if there aren't many people to help on the job, but that when he puts comb into frames, he tries hard to keep that comb orientation. If you come upon comb lying flat, you can tell the correct orientation because normally, the top few inches will be capped honey cells – that is the key – there will also be a thin honey layer on sides, but not as thick as on the top. Doing removals, it helps to call out the orientation if you are handing comb down from a ladder. Norm was asked about using 6 inch frames, as in one photo: Norm says that that can work, and that sometimes you are limited by size of comb you've retrieved: you don't want to put a short run of comb on a full width frame: it's best to fit comb to frame so that it is properly supported. He goes with the flow, takes two of all equipment, and hopes it will be enough.

Brandy DeMelt asked how long you can leave the brood comb lying flat before larvae are harmed, and Norm said that the less time they lie flat, the better. He's thinking about getting a music stand or something similar to ensure that they never lie flat. There's also the risk of dropping comb as it's handed down: "I dropped a frame once, and the rain of little larvae just about broke my heart - I was horrified, thought I'd killed my colony," and though they recouped fast, ever since, Norm has tried hard to avoid that. "Part of this is research and development: when I started, I was a butcher - maybe now I'm not a surgeon, but I've learned to do better," he said.

Moving Bees to New Homes: It's important to move the bees, because the foragers who are out seeking food will return to the original site. The final slide of the Onalaska job shows a brood box left behind next to the wall opening to attract bees that were off foraging while the job was done or who left because of the disturbance. The box was baited with comb. Later that summer, another colony of bees turned up across the street from where this colony was removed. Norm noted that if you don't seal an opening up tight, more bees will come back: they have keen sense of what's a good spot and will return to where they smell a colony has lived. That scent will linger for years. Dave Smith noted that in the "Bees in a

Barn" job from 4 years ago, described below, he has gone back to remove bees from that barn every year since. Probably there was enough comb left behind and enough foragers out to return that this happened because the wall was not sealed fast enough (see below – the Bee Team does not repair structures).

Bees and Landmarks: However, if the bees are moved, they won't have landmarks. Dave Gaston noted that if you cover the hive opening with a fir branch like cedar, making their exit different, the bees will have to reorient to return. Norm commented that he liked the idea of Dave's approach better than the method he used to use – keeping the bees in box for a few days in cool place, then opening it up. Don asked whether they would not come back if no queen was present, but Norm said the bees might not find the box if it is a distance away.

How Early in the Season Can Bees Be Taken from a Structure? Norm and Dave Smith recalled a February job done at 35 degrees. A hollow fir tree had fallen in a winter storm and compressed the bee colony, which had been living inside. Norm called Dave, who put his chainsaw to work, then took the colony home. This was unusually early: they would not have taken these bees, except that in the conditions they could not have survived if left alone. Typically, "removal season" starts in mid-April and runs through the summer. Norm does not recommend taking bees out of structures much later than mid-July since the bees will be challenged to build up food supplies for successful overwintering. Don got a call about a colony in a chimney – Norm noted that he has never successfully gotten them out of a chimney because of the small work area.

The Scaffolding Caper: The third job shown involved bees in a wall on the second story of a house. Rob Jenkins provided the photos (though he didn't take them; images of Rob in his bee suit serve as alibi). Norm noted that scaffolding can be "ungodly heavy" to tote around; Bruce Casaw built a small scaffold and set of ladder jacks, shown in the photos, and this helped in the weight department.

Getting Stung: Not all bees' venom is created equal, and the venom deployed by these bees was particularly nasty: Norm said that "you definitely knew when you'd been stung" on this job. Doing removals, one must expect to get stung: these were feral bees, so it would be hard to guess what their genetic heritage, with no control over what successive queens had bred to. If a colony has lived in a structure for more than two generations, its disposition will change. Russian bees are said to be the worst in terms of disposition shift.

Norm reported on the three memorably bad groups of bees he's encountered in his years of doing removals: once, removing bees from a steep roof on a Newaukum Hill structure, he took about 60 stings when he reached up into a cavity. Rob commented that those bees were nice in comparison to those they'd removed the week before the job pictured: that previous week's bees had gone into a section of wall under a window down the wall, then back into floor joist under the dining room roof – the residents actually had honey dripping through the ceiling onto floor of their dining room! Those bees, Norm commented, were one of meanest batches ever. At the job pictured in the slideshow, though, the onlookers stayed 150 feet down the driveway, and the bees' venom was worse, though their disposition was better. When Norm swelled up, he discovered that although the guys had duct taped a split in the back of his hood, the bees got in anyway, and proceeded to sting his eyelids, throat, and pretty much anything else they could get their stingers into.

Many take Benadryl for mild allergic reactions to stings (often chewable children's Benadryl). However, it's important to understand the difference between a mild and a serious allergic reaction: in a severe reaction, secondary reactions, such as one's throat swelling shut and affecting or even stopping breathing, can occur. These secondary reactions are the clinical definition of allergic responses, and they can go all the way in severity to anaphylactic shock. For some strong allergic responses, doctors will prescribe steroids like Prednazone; others will prescribe an Epinephrine pen to carry. The Epi-pen will not take the pain of the sting away, but it will stop a secondary reaction from swelling one's throat shut. However, as Renzy Davenport noted, an EMT who spoke to Olympia Beekeepers warned them that the Epi-pen is only good for about 15 minutes – after that, there may be a rebound, so if someone is reacting so strongly that the Epi-pen is needed, call 911 and get that person to a hospital. Norm noted that for most people, stings don't provoke such strong reactions; Peter Glover cited the statistic that only 0.05% of people are so severely allergic to bee venom that they risk anaphylactic shock – though he swells up rather badly from multiple stings, he has not yet needed to use an epi-pen, thankfully. Those concerned about the severity of their allergic reaction level can get tested to find out: see the Bee Stings page under Resources & Links on our website for what tests to ask for, as well as a list of specific symptoms of secondary reactions. Don Hershey said that although he is quite allergic, he still wants bees for the environment in his garden and doesn't let allergies stop him.

Norm says that the best thing to do is to get the stinger out as fast as you can. It is important not to pinch it so that the stinger will not keep pumping venom: rather, scrape it off. Rob noted that to relieve discomfort from a sting, rubbing plantain leaf juice on the sting site will relieve pain, though it will not mitigate allergic reactions. Renzy noted that the EMT who spoke at Oly Beekeepers said that if you're allergic to yellow jackets, honey bees might not be an issue for you: usually it's one and not the other. The question of whether honey bee venom has a cumulative effect was raised, but no one was certain.

Vacuuming Bees: One of the slideshow photos shows Rob vacuuming stray bees off the back of Norm's suit. Bees actually do ok being vacuumed into the Shop Vac: to get them out, he just pulls out the filter and pours them into a box as if hiving a package of bees. He prefers the larger vacuum with a bag so that the bees don't overheat.

Will Remove Bees for Food: One nice feature of the "scaffold job" was that the owner of the property baked fresh cinnamon rolls for the Bee Team [hence the photo in the slideshow of distinctly non-bee-like rolls]. Rob explained how Norm had not intended to share his roll with the resident hen, but she jumped up and got it anyway – maybe all those stings slowed Norm's reflexes down a bit. . . . .

Bees in a Barn, Summer 2009: This fourth pictured job was one of LCBA's first group efforts – Bob Harris called in Norm and others for help on a gentleman's farm out between Winlock and Toledo off Route 508. One colony was in a barn, the other in an outbuilding. The bees had discovered a hole in the back of a stereo cabinet in the barn loft and found it a cozy place to build comb. When the Bee Team opened up the shingle siding, they found the walls stuffed with hay, making it a mess, so they had to clean it up before they could really start the job.

Next, the team tackled the upstairs loft, where bees had nested in particle board cabinets – the photos show how, when they peeled the entire cabinet away from the wall, a massive section of comb was exposed: "these were very industrious bees," Norm commented. They were also more aggressive bees, the ones that nailed Peter (see above); as Norm said, "We were in the heat of battle and had to leave Peter

to fend for himself," so remember that you have to be ready to look out for yourself on these removals. Finally, they loaded the bees up in Bob's truck, moving one colony far back in the fields of the property and taking the others home.

Bees under the Deck: In the fifth and last job pictured, bees had installed themselves in an overhang, and the owners let them go for a year. Norm had to work around electrical wires to expose the comb. In the pictures, the color of the comb suggests that the colony actually had been there for several years, at least two or three, and the outside edges of the comb were crunchy, old and crumbly. Asked what harm is done if you just leave bees in a structure like that, Norm said that the bees don't do much damage – they may strip insulation out and clear an area to build brood comb. The most damage he's seen was to the wall of a pump house from droplets of water the bees deposited on sheet rock. The bees had scraped out down to the inner paper liner: they had not pierced the paper liner so they would not have a draft, but they could still get the heat from the pump house through the paper into their colony. Norm noted that bees are ingenious and industrious and will do what they have to do to ensure the best conditions for the colony. Asked about the reddish tinge on the comb, which he has run into in a few jobs – Tim Weible suggested that the red is propolis to keep the comb anchored.

Gary asked whether bees survive winter better with polystyrene; the hives are made of mold-injected high density polystyrene, traditionally called HDP. Dadant distributes them: they are a light weight hive, lighter than wood, and the down side is that polystyrene hives are not interchangeable with wooden hives, except for the frames: the inner cover and telescoping cover are different dimensions because of the thickness of the walls. Norm said he'd have to do a baseline test, with one colony in wood and another in Styrofoam, to see which worked best.

How Do You Know Whether a Removed Colony Has a Queen? Gary Kalich asked how you know if a removed colony has queens: Norm said that you don't know - he lets them re-queen themselves. He ensures that they have larvae so that they can make a queen, and if they do not, he puts them on top of another box, and they will take care of it themselves. If he puts a queen cell in, "she'll be running around in a week," so he doesn't worry so much about this. Their demeanor will tell you if they don't have a queen: they'll be restless, not wanting to stay in the box – he can almost always tell which box the queen is in from their behavior. Anyone who wants to propagate queens, or simply to be sure there is a laying queen, should get a magnifying glass to be able to see exactly what is in the cells. The eggs will stand up looking like tiny rice grains for three days, then will fall over as they enter the larval stage, when they begin looking like a little maggot.

Norm looks for eggs as the prime thing to have in a colony: when is doing splits, he wants eggs - not necessarily larvae because the sooner the nurse bees can give royal jelly to a queen cell, the higher quality queen you will get. If a queen cell is three or four days into the larval stage, she will not get the same strong start. Asked whether, if you separate a colony in April, there will be enough drones to have new queens get bred, Norm says that the answer usually is yes if there is a lot of drone brood. If the separation is done earlier, Norm was asked if it's best to re-queen with a bred queen? Norm says that he has never re-queened a colony: he prefers to let them raise their own queen, then mate naturally with a range of drones to promote genetic diversity. Alan Sparling asked if a hive without a queen will forage and bring back pollen: Norm has seen them forage up to three months without a queen until the colony died out: he noticed fewer and fewer bees, no indication of a queen, nor eggs, nor larvae, nor capped

brood, yet the remaining foragers still brought in supplies. This colony could have lost its initial queen in a swarm, then had queen eggs fail.

FYI: Swarm Removal Is Not the Same as Colony Removal. A swarm has left a colony with the colony's old queen; it is on the move, looking for a new home. The swarm could have issued from a colony in a barn or in someone's bee yard.

Benefits of Feral Bees: Norm likes feral bees because they may have more diverse genes and could be more mite resistant. One of his re-hived feral colonies displayed terrific grooming behavior: he watched as several bees held down another worker bee and worked over a mite till they got it off the host bee, who then stretched as if relieved. As far as mean disposition, "mean bees" from Norm's airport job took two days before they would let him walk by them unmolested in his yard – he would ignore them and work his other bee boxes until, gradually, they were used to him – he thinks the trouble was simply that the bees remembered the agitation and held a grudge.

Would You Like to Come Along on a Removal? Norm noted that he will hold several educational workshops on jobs left over from last year: as we schedule these, anyone who signs up for email notifications will get them; the workshops will also be posted on our website, and those interested in coming can contact Susanne by phone or email to get details and directions (we don't post people's addresses online without permission). Anyone who wants to come along is welcome: the intention is to allow people to see how a bee colony looks in surroundings bees choose for themselves. It is pretty spectacular to see, Norm commented.

Should You Suit Up If Only Observing? Norm says that this really is up to the individual: it may depend on how relaxed you are. He told a story of a boy who was not suited up, but handed Norm tools during a removal of 7 foot long comb: they had to cut 13 crossways in wall, cutting off at bottom, before they could get an even bottom edge. 25 people set up a buffet in yard and had a picnic as they watched, taking pictures. Only one person got stung, and Norm had told him that he was wearing the wrong colors (a red and black sweatshirt) – the boy had these colors on, too, but immediately ran off to change, then returned in full camo, and never got stung.

What About Damage to Structures – How Do Homeowners React? Norm explains what he will have to do to a structure and only proceeds if the homeowners agree; he explains that the Bee Team does not repair the structure. He's found that literally everyone who calls says that they want to save bees and don't mind the damage and later repair cost – even when he has to cut sheet rock and take bees from inside. Not one person has ever complained about damage since he tells them up front what to expect. Most are relieved not to have bees cohabiting with them any longer.

Kent Yates said that people have asked him what they owe him when he does removals, and he doesn't charge, but will accept donations. Norm says that he does the same; in fact, that's the policy on our website. Norm just loves what he does and doesn't ever set a price: his goal is to save the bees. One thing he will not do is use pesticides: doing so is illegal without a pesticide license, and honey bees are protected by law. There are no bee police – so the question of not killing them goes by the honor system. When Norm started doing removals, it was his intention to give pest extermination companies an alternative so that they can tell people who have honey bees whom to call. Since then, the removals have blossomed: last summer, he did at least thirty.

LCBA Monthly Business Meeting

Package Bee Orders were taken at this meeting. Since the meeting, we have delivery details: bees will be available on Saturday, April 20, for pickup from noon to 3 p.m. at the Master Gardeners' Demonstration Garden at Fort Borst Park.

Nuc Order News: as of both the meeting and sending this newsletter, there is no news yet – we'll email when we know and call those who asked to be called. Nucs, as developed colonies, take longer. We expect the nucs to be available late April, possibly early May.

Swarm bait box: Dave Gaston showed the swarm box he made [photos are attached to the emailed version of this newsletter and on our webpage under the Monthly Meetings link]. This is an eight-frame box: not ten, not five. Studies by Seeley and Buhrman, "Nest-site selection in Honey Bees," have shown that scout bees prefer sites that are roughly the size of an 8 frame box. You can buy a Langstroth 8 frame, but Dave found it was cheaper to build one himself. If you have some frames with honey, you can bait the box with that and fill the rest of the box with open comb. Cross 2 nails at the entrance to keep birds out. If you don't have drawn comb or honey, you can buy a commercial swarm lure - but lemon grass oil works just as well and has similar smell to the Nasanov pheremone. Use ten drops at the most on a chunk of paper towel: seal it in plastic about three quarters of the way and put it into the bottom of the box; then put a drop or two on the outside. To hang the box, go at least ten feet up on a tree – that works best for swarms, 10 to 12 feet. When you hang it there, be sure to orient the nail so that it does not sag! After the bees are settled in, put hardware cloth across the front. When you have bees, you can plop them into a Langstroth box. If you want a top bar hive, you can build the same thing with top bars. It is easy, and the only thing that's different is the top: you just have to adjust it for the top bar.

Gary asked: once the bees are inside the swarm box, how long do you wait until you move the box? Dave said that if you wait a week to two weeks until you see them bringing pollen, then you can move them to wherever you need to and hive them in a Langstroth or top bar hive. Renzy suggested that when moving a hive, a good way to do it was to put a bush or a cedar bow covering the front entrance so the bees have to re-orient themselves to the new site. Kimo noted that if you want to try the lemon grass oil approach, you can buy lemon grass at Asian grocery stores.

Dave's Top Bar Hive Update: Dave gave an update on his top bar hive: it is doing phenomenally after its first winter. Nine bars are filled with honey that has not even been touched yet. The queen is laying, and the hive is chock full of bees that have been coming and going, even in this weather. Dave's Langstroth hive comes from the same queen from same tree, and so far this season, the top bar colony is more robust.

Honey Bee Related Legislation in Washington State: Susanne passed on information from WSBA about two bills before the Washington House and Senate. Since our meeting, the House has passed "HB 1558 [which] extends the B&O tax exemption for registered beekeepers with no cut-off date, exempts beekeepers from paying sales tax on feed for bees, and establishes a short-term honeybee working group with the Dept. of Agriculture to consider a variety of issues, including the need for more bee forage and the importance of funding additional WSU research on honeybees." The Senate version of this bill died in committee, but the House bill is moving forward.

SSB 5696 concerns both hobbyist and commercial beekeepers: although it seems to have died in committee since our meeting, members should know what it proposed. Originally, this bill was going to protect beekeepers from liability, but then was amended to allow those with "bee allergies" – not defined – who live within a quarter of a mile of a beekeeper to impose "conditions and limitations" – not

specified – on the beekeeper. WSBA fought to have this language removed and succeeded. The bill's language retains the original exemption from liability and continues with language specifying numbers and placement of hives:

"Beekeeping is permitted outright as an accessory use, when registered with the department, provided that: (a) no more than four hives, each with only one swarm, are allowed on lots of less than ten thousand square feet; and (b) hives are not located within twenty-five feet of any lot line except when situated eight feet or more above the grade immediately adjacent to the grade of the lot on which the hives are located or when situated less than eight feet above the adjacent existing lot grade and behind a solid fence or hedge six feet high parallel to any lot line within twenty-five feet of a hit and extending at least twenty-five feet beyond the hive in both directions."

For more complete information, visit http://apps.leg.wa.gov/billinfo/summary.aspx?bill=5696&year=2013#documents, and look for the new language, noted under Amendments. Beekeepers may want to contact their representatives about this bill in case it does make it out of committee. Susanne noted that WSBA did a great job of working on behalf of beekeepers, and thanked Franclyn Heinecke, our Area 2 Representative, for her detailed reports on the legislation.

Membership directory: Steve Howard has been gathering membership directory forms; if you'd like to be in our 2013 directory, please let Steve or Susanne know!

Upcoming Events – Mentor Workshops on Hive Inspection: The LBA Board is developing a set of free spring and summer workshops:

- **Workshop <u>for mentors</u>:** those who would like be mentors, helping "newbees" get started, please mark your calendars for Saturday, April 6, 10 a.m. to noon at the Lewis County Extension classroom in the Old Chehalis Courthouse building: Norm will lead this orientation for mentors.

- **Workshops <u>for beginning beekeepers</u>:** please mark your calendars for two upcoming workshops on how to do hive inspections:

    - The first will be on Saturday, April 13, 1 – 3 p.m., in Mossyrock (call 360 880 8130 for directions or email susanne.beekeeper@gmail.com). Norm and other board members will be there to help.

    - The second will be on Saturday, April 27, 1 to 3 p.m., in Winlock (call 360 880 8130 for directions or email susanne.beekeeper@gmail.com). Norm and other board members will be there to help.

    - Topics will include learning how to check on bees' condition without harming them. Mentors will give demonstrations on how to find the queen, confirm that she's laying, identify a good brood pattern, spot signs of bee diseases, and more, including hiving bees, depending on when packages and nucs arrive.

We'll have more workshops on additional topics as 2013 unfolds, so stay tuned for announcements!

Beekeeping Q&A: Norm opened up the meeting for beekeeping questions.

Feeding honey from old super frames to bees in spring? One question focused on whether honey in super frames can be fed back to our hives at this point in the season. Norm said that if you have a honey super with comb left over from last fall's extracting, throw it on top of your inner cover and let the bees clean it out. The honey should be fine. The question was raised of what to do about mold on frames from a dead hive: as long as the frame isn't too bad, it can be given to the bees, and they will clean it up. Norm has always been a proponent of making the bees go out and get natural food as it is better for them than sugar water. Local bees found the old comb / supers that he put out; however, he found out the hard way that this enticed other bees, and robbing resulted, so he lost some colonies. He had to neck down all his colonies. In the past, he was for "hard love" for his bees, but now he is putting a box on top of his inner cover with chunk comb in it: this makes the robbing harder to do. Norm was asked about slotted covers; he does not have any at this point because robbers will have access right into top of your hive if you use them.

Hardware cloth, screened bottom boards, and more: Kent asked about hardware cloth: Norm said he's been waiting for better ventilation, and that the best thing that he has heard of is the screened bottom board. Gary Kalich reported that he didn't lose any hives that he had on screened bottom boards this year; Susanne noted that she and Peter had two over-wintering colonies with screened bottom boards, and so far both have survived. Also, Norm noted, a notched inner cover can help provide ventilation.

Using screened bottom boards to test for mites: Renzy has kept a log and found that every hive he has lost has had a high mite drop, 200 a week. He used a screened bottom board to check, and the colonies that he didn't lose were averaging fewer than 40 mites a week, so he is a believer now: monitoring using the screened bottom board insert gave him a tool to monitor and helped him know which colonies to treat and which not to.

Wrapping hive boxes? Renzy doesn't wrap his hives because he feels it's unnecessary here in Washington: we just don't get the kind of harsh cold nor hard winds as some other states. Norm asked Renzy about slatted racks; Renzy said he got away from it because the racks were left to right, and mites could still land on a slatted rack piece and not fall through. If you are concerned about cold weather Renzy suggests putting a screened bottom board beneath an empty western super to provide a buffer: it is not so close, so there is no drafting, and it puts bees a tad higher, which then gives insulation

Winter losses? Norm asked whether anyone lost bees over winter. Mel Grigorich noted that he lost one of four. Norm lost 5 of 8, partly because of robbing, though these were colonies that he removed very late in the season, somewhat against his better judgment, because the homeowners wanted the bees out; they did not have time enough to build up for successful over-wintering. Rob Jenkins lost 2 of 3colonies. Kim Weiland lost both of hers. Norm thought this would be a tough year for losses, but has not heard broad reports. Renzy noted that we are not alone – he knew of a commercial beekeeper who lost about 22,000 hives! From what Renzy keeps hearing, the consensus is a high mite count going into winter: his personal experience seems to point that direction, as every hive he lost had a high mite count. Norm thought it could be a cyclic event. Susanne noted that Dewey Caron will be our May speaker – he will survey us on bee losses for the Bee Informed project, and will also focus on why the losses are happening.

Gary Stelzner noted that the telescoping tops are designed to be larger than the hive body so that they can be slid back and forth: you can push the cover up against the slot or push it back, thus regulating

air flow, and bees can't get out. Renzy commented that it all depends on size of his colony: going into the winter, with shims in, he figured there was too much draft, but his bees took care of it and redirected air flow. His bees regulated air flow by building propolis walls inside the hive to partially block the air flow from the hive entrance; he can't get a probe past what they built. Renzy actually went and measured it: it was just inside the hive, behind the small opening of his entrance reducer, like a wall of propolis that was about 3 inches wide and 3/4 inch high. It was about 1 inch inside where the entrance reducer would be: he guessed it to be the bees redirecting the air coming in a bit, basically like a deflection wall. Rob said that a friend of his uses knotholes: if the opening is too much, the bees will plug it themselves.

We closed the meeting with best wishes for each other's bees' survival!

BeeInformed Partnership – Online Survey on Colony Losses –

Open March 29 – April 15

Are you ready to survey? By Dewey M. Caron

(Dr. Dewey Caron will be back to share the latest information on honey bee losses, both nationally and in the Pacific Northwest, at our May 8 monthly meeting.)

The Bee Informed Partnership (BIP) is a USDA/NIFA (U.S. Department of Agriculture/National Institute of Food and Agriculture) funded project with the stated goal of reducing colony losses. The program is a collaboration of research institutions, Universities and beekeepers in the US. It is now time for your active participation.

BIP and the nation's beekeepers, cooperatively seek solutions to reduce colony losses. While some beekeepers are experiencing near normal loss levels, others are experiencing devastating losses. BIP seeks a collective approach to gather and share information on what works and what doesn't work. We need your participation on two annual electronic surveys, covering both annual colony losses and management strategies. The information, after coming directly from beekeepers, is then analyzed and displayed graphically in a way that is easy to understand.

Beekeepers can find out which management techniques correlate to lower colony loss when beekeepers anonymously share data. More data is always more accurate than less data. Last year's survey included over 5,000 participating beekeepers sharing information.

As the third year of these surveys approaches, the goal of the partnership is to increase participation and report it so it is more significant and meaningful to beekeepers. This third year of data will enable us to conduct multi-factorial analysis and report results on a more regional basis. Commercial beekeeper data will be separated to highlight this group's special needs and concerns.

The cost for participating is free. It will take less than 20 minutes to take both surveys. In return, you will have access to the compiled data from all aspects of bee management. The information you enter into the survey is completely anonymous, deigned to improve everyone's beekeeping success.

Please go to Beeinformed.org to see what we have gathered so far and sign up for this year's survey. More Beekeeper participation means more information and more answers. We want you to BEE

INFORMED. The surveys will be available beginning March 29th and will stay open until April 15th. For more information, to sign up to participate or to fill out a survey on March 29th, visit www.beeinformed.org or email Karen Rennich, BIP Project Manager at usbeesurvey@gmail.com.

I will be visiting Lewis County meeting in May. I have some interesting survey results from the first two years to share with you at the meeting and I will bring a Lewis Co. loss survey with me (once again). I will supply some specific information on loss situation for your neighbors. Hope to se you later this spring. In the meantime, won't you consider participating in the National survey in early April?

BEES IN THE NEWS

Many thanks to Steve Howard, Steve Norton, Norm Switzler, Jon Wade, and others who have sent links to news about our favorite members of the Genus apis ~ please keep 'em coming!

Neonicotinoids implicated in massive bee die-offs in U.S. agriculture (28 Mar 2013, New York Times): Commercial beekeepers are reporting that 40 to 50 per cent of their colonies have died over the 2012-13 winter. The USDA will report its conclusions in May, though its lead researcher, Jeff Pettis, believes that this past year's bee death rate will prove "'much higher than it's ever been.'" As rising pollination costs help drive food prices up, the pesticide industry claims that the spike in bee deaths since 2005 cannot be attributed to the rise in the use of neonicotinoids that has taken place over the same time frame. A correlation is not necessarily a cause, but research into "sublethal" effects of these pesticides – "often embedded in seeds so that the plant itself carries the chemical that kills insects that feed on it" – shows that whereas previous pesticides degraded relatively fast, "neonicotinoids persist for weeks and even months." As Bret Adee, a South Dakota beekeeper who lost 42% of his bees over the past winter, commented, "'Soybean fields or canola fields or sunflower fields, they all have this systemic insecticide . . . If you have one shot of whiskey on Thanksgiving and one on the Fourth of July, it's not going to make any difference. But if you have whiskey every night, 365 days a year, your liver's gone. It's the same thing.'" To read the entire article, visit: http://www.nytimes.com/2013/03/29/science/earth/soaring-bee-deaths-in-2012-sound-alarm-on-malady.html?pagewanted=1&_r=0&emc=eta1

"Neonicotinoid pesticides 'damage brains of bees'" (27 Mar 2013, BBC Science): Two new studies have shown that neonicotinoids and coumaphos obstruct honey bees' capacity to "learn and remember" and this intensifies when the two are used together. Coumaphos is used to fight Varroa mites, so this research suggests that beekeepers should, at minimum, reconsider that use. Bayer and other manufacturers argue that the neonicotinoid studies don't "apply to bees in the wild," but researchers note that the pesticide makers fail to account for sublethal and cumulative effects in their own studies. The neonicotinoids were shown to make bees' brains hyperactivated, "an epileptic type activity," followed by "neuronal inactivation, where the brain goes quiet and cannot communicate any more." The other study examined bee behavior and found that when exposed to both neonicotinoids and coumaphos, bees lost their capacity to "learn and then remember floral smells associated with a sweet nectar reward." To read more, visit: http://www.bbc.co.uk/news/science-environment-21958547.

"Nanoparticles Loaded With Bee Venom Kill HIV" (7 Mar 2013, *Science Daily*): New research shows that a "toxin found in bee venom can destroy human immunodeficiency virus (HIV) while leaving surrounding cells unharmed." Researchers are working to infuse this toxin into a vaginal gel that could slow (or even stop?) the global HIV pandemic. The toxin, called melittin, "can poke holes in the protective envelope that surrounds HIV, and other viruses." Though "free melittin" in one's system can be harmful, when deployed via nanoparticles, the toxin kills tumor cells. Most drugs used to combat HIV limit the virus' capacity to reproduce itself, but don't prevent a person from becoming infected in the first place - whereas the melittin-laden nanoparticles actually "attack[ ] . . . the virus' structure," rupturing its protective envelope. "Theoretically, there isn't any way for the virus to adapt to that. The virus has to have a protective coat, a double-layered membrane that covers the virus," according to the lead scientist on the project. Further applications to viruses like hepatitis B and C, which also have double-layered membranes like HIV, may be possible. To read more, visit: http://www.sciencedaily.com/releases/2013/03/130307160325.htm?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencedaily+%28ScienceDaily%3A+Latest+Science+News%29

"Bees gravitate to caffeine in nectar" (7 Mar 2013, *New York Times*): While it's not news that plants use sugars, fragrances, and other chemicals to attract pollinators, new research shows that some plants have nectar that is naturally infused with caffeine, which "enhances the learning process for bees," making them more likely to pay those plants a repeat visit. "'The plant is using this as a drug to change a pollinator's behavior for its own benefit,'" according to researchers at Newcastle University in England. Although some types of citrus and coffee plants contain caffeine in "toxic concentrations" in leaves – a feature that deters predators – their nectar contains lower amounts, like a weak cup of coffee. The scientists tested to see whether bees could connect an odor and a reward (sugar water plus caffeine) and found that"[i]f you put a low dose of caffeine in the reward when you teach them this task, and the amount is similar to what we drink when we have weak coffee, they just don't forget that the odor is associated with the reward." Whether bees are attracted to beekeepers who are serious coffee drinkers was not addressed in the study.
To read more, visit: http://www.nytimes.com/2013/03/08/science/plants-use-caffeine-to-lure-bees-scientists-find.html?emc=eta1&_r=0

"World agriculture suffers from loss of wild bees" (28 Feb 2013, *Global Post*): Are you fond of tomatoes, coffee, and watermelon? Research done by 50 scientists in 20 countries shows that these are among crops that may suffer most from the decline in wild bees and other native pollinators. Great though honey bees are at pollination, researchers at the University of Calgary noted that "Managed populations of pollinators are less effective at fertilizing plants than wild ones . . . so the dearth of [native] pollinating insects cannot be solved by simply introducing others." Habitat loss plays a key role because as diverse vegetation is removed to make way for monocrop agriculture, the "abundance and diversity" of the wild pollinators goes with it. Analyzing "41 crop systems around the world, including fruits, seeds, nuts, and coffee," the researchers determined that, "[p]aradoxically, most common approaches to increase agricultural efficiency, such as cultivation of all available land and the use of pesticides, reduce the abundance and variety of wild insects that could increase production of these crops." The study,

published in *Science*, urges prioritizing restoration and conservation of natural pollinator habitats.
To read more, visit: http://www.globalpost.com/dispatch/news/afp/130228/world-agriculture-suffers-loss-wild-bees-study

ANNOUNCEMENTS

USED BEEKEEPING EQUIPMENT FOR SALE: Joe Wittwer, 360 569 2796, stopped keeping bees about 20 years ago and is now selling his hive boxes. He has 7 deep bodies and 6 western supers, each for $5. Joe reports that he did not have disease in his hives. FYI from LCBA – it is always a good idea to clean used equipment thoroughly, and flaming the woodenware to eliminate spores from American Foulbrood, Nosema, etc., is an important precaution to keep one's bees disease free.

MARCH WSBA NEWSLETTER NOW AVAILABLE ONLINE: WSBA Newsletter editor Fran Bach writes, "Pick up your copy from the main page at www.wasba.org by clicking on "Newsletters" under OUR SPONSORS on the lower right of the page. Then click "Current issue: March 2013 on the page that opens.

BEEKEEPING IN KENYA: To follow February speaker Wilma Sofranko's beekeeping adventures in Kenya, visit: www.kireeco@wordpress.com.

That's all for this month. Best wishes for healthy colonies this spring!

Take care & bee happy,

Susanne for LCBA