

Lewis County Beekeepers' Association: *January 2009 Newsletter*

IN THIS EDITION:

- **LCBA News and Upcoming Events:**
 - **LCBA has *approved* bylaws.** Once we get a bank account and file as a nonprofit organization, we will be official and able to receive donations, raise funds, do outreach, etc.. See the minutes, below, and bylaws, attached in a separate file, for more information.
 - ***Next LCBA Meeting: Wednesday, February 11, 2009, 7 p.m.*** at the WSU Extension classroom in Chehalis.
 - ***February Speaker:*** Paul Lundy, newsletter editor for the Washington State Beekeepers Association, will tell us about the statewide organization's resources and activities and how we can get connected.
 - ***February Is Dues Month for LCBA Members:*** In the bylaws, \$24/year (for individual and family memberships alike) is listed as our dues rate, with our year beginning in October. Dues will be pro-rated, so members are asked to pay \$16 in February.
 - ***LCBA Logo Contest!*** LCBA needs a logo to put on our brochure and website. Got ideas? Bring sketches to the next meeting. We'll vote, and the winner's prize will be a dues rebate for the first year of membership.
- **John Edwards of Ruhl Bees, Portland: summary of 1/14 talk below.**
- **Minutes of our 1/14/09 Business Meeting. Topics included:**
 - ***Minutes of 11-12-08 Business Meeting Approved***
 - ***Report on December Hive-Building Workshop***
 - ***LCBA bylaws: second reading***
 - ***February speaker: from Washington State Beekeepers' Association?***

Speaker: John Edwards of Ruhl Bees, Portland

Phone: 503 657 5399

Online: www.ruhlbeesupply.com (focus on honeybees); and www.orchardbees.com (focus on Mason bees).

Topics of John's talk included:

**** History and practice of Ruhl Bees;***

**** Seasonality of bees: when to do what;***

- * *Screened bottom boards: the benefits*
- * *Methods for treating mites: natural “cultures” vs. pesticides;*
- * *Bees around the world: an overview of species and history;*
- * *Costs of buying bees from Ruhl’s*

Bob Harris introduced John Edwards, proprietor of Ruhl Bees, and thanked him for the help he has offered LCBA. John took orders from a number of beekeepers and brought them with him to our meeting.

John explained that Ruhl Bees has been in existence for 111 years; he bought it from Bill Ruhl and his family two years ago. His focus is on providing advice. Spring is a busy time, so there is less time to consult, but he tries and always wants to hear from beekeepers with questions. He now has two websites (see above).

Ruhl Bees’ previous owners bought via distributors, but John works directly with manufacturers, to the extent possible, to keep prices reasonable. He is trying to drop prices on medications, especially.

John had three subjects for us: first, the seasonality of bees; second, treating Varroa mites using powdered sugar; and third, an overview of honeybee species world-wide.

Seasonality of bees:

Many questions about bees are seasonal: what should beekeepers do in each season, and why? To understand this, we need to understand the cycles of honeybees. John showed us a graph which he also had available in a laminated sheet for \$3.95. The graph used separate lines to track adult bees, day old bee larvae, tracheal mites, and Varroa mites. John noted that there are variations in what to do in what months depending on location and climate. His presentation focused on northwestern bees.

In February/March, John gets many calls from people losing their bees and surprised that this happens after the winter solstice, when queens have started laying again. It is not clear why queens begin laying: it could be related to temperature or to hours of daylight. The bee population peaks in summer, then declines through late summer and into fall and winter. In late winter, however, there is often a steep crash as adult bees’ lives end. Then, in early spring, the population bounces back. But late winter, February/March, is the time of greatest vulnerability for a hive. The Varroa mite tracks the adult bee population, increasing as bees’ numbers do, then decreasing along with them. The tracheal mite is opposite of this curve for unknown reasons.

What can beekeepers do in February/March to protect their hives? John noted that the first step is to protect the bees before winter begins by managing the mite population: if beekeepers can do that, more healthy bees will survive winter and come out on the other end. Determining just when to act can be difficult, because microclimates matter: if beekeepers “mess with” hives too early, they could chill their

bees, but when it is possible, mite treatment should begin. Beekeepers need to observe their bees carefully and use their judgment.

- * In early spring, John medicates for Noxema and Foulbrood. At this time, he also tests for Varroa mites and treats them as needed.

- * In late spring and throughout the summer, John monitors his bees and treats them with “cultures” (more information on this below).

- * In fall, John treats his bees for both Varroa and tracheal mites.

Screened bottom boards: the benefits

John cited the environmentally friendly beekeeping practices of Janet Brison. These involve using a new type of screened bottom boards, so that beekeepers can pull out those screened boards to get a sense of the state of mites in the hive. Then, using powdered sugar, it is possible to reduce mite loads by 5 to 40%. It is also important, though, to have hygienic queens.

John demonstrated a screened bottom board and had brought several for purchase by LCBA members. The mites fall through and land on the screen, but they can't hitch a ride on a bee back into the supers. The beekeeper can then remove and clean the bottom boards: John emphasized that hygiene is crucial in mite control. Another benefit of the screened bottom board is that if rain leakage occurs, the bottom board will show moist areas reflecting where the leaks are so that they can be repaired.

How can beekeepers know that their bees are alive in winter without constantly poking into hives and disturbing the bees? If the bottom board is treated with vegetable oil or Vaseline, when a beekeeper pulls out the sticky board, there will be “brood shadows” of droppings and bee parts to show where the brood is and what size it is.

Cost: John's screen bottoms are \$27 by themselves; sealed in rosin and paraffin, they are \$37. John likes the slope on the front: the bees seem comfortable climbing up the slope. John doesn't sell the screens by themselves: he can't get them alone from the manufacturer. He has separate screen cloth, but not separate bound metal screens. It is time-consuming and painstaking to make bound metal screens on your own, more labor intensive than building wooden frames.

In spring, when you reverse hive bodies, that is a good time to dust. John does not dust automatically: it depends on the hive population and if it seems needed.

Cultural treatment of mites: using powdered sugar and other natural ingredients, rather than medication, to not treating bees for mites:

One website, www.scientificbeekeeping.com, reports a 50% kill rate of phoretic mites using powdered sugar. Randy, the webmaster, recommends weekly dusting. Bees love the sugar: it is good nutrition for them (“bee cocaine,” Bob quipped). From March 1 through August 30, it is possible to see a spike from 0 to 7000 mites if a beekeeper does

no treatment. The sugar is cheap and non-pesticidal, though it is a bit more labor intensive than just tossing in mite strips. Still, he recommends using as few toxic pesticides as one can.

Randy is based in California and uses sugar dusting to knock off the mites in three week periods. He recommends “amplified stickies”: the more sugar, the more mites you see dropping off the bees and landing on the bottom boards. He recommends using confectioners’ sugar: this gets on the mites’ sticky pads, and that gets the bees to start grooming the mites off themselves and each other. He recommends using a sifter to spread the powdered sugar evenly, rather than in a lumpy way. He emphasizes that it’s best to get the sugar onto the bees themselves. A beekeeper can use a bee brush to spread it out gently over the top of the hive. There is no need to pull out the supers and dust them individually. He recommends one cup of sugar per brood super. In answer to a question, John noted that flour could probably be used to much the same purpose as sugar, but John noted that bees simply like the powdered sugar, probably because it is a nutrient for them.

Bee Culture magazine offers this caution: there is corn starch in supermarket sugar. Bees can’t digest corn starch, and they can get dysentery from it. Thus, the powdered sugar should not be used in the fall, so that bees don’t die of dysentery through the winter. When sugar is used in the spring, bees are out and flying and less vulnerable.

Other non-pesticidal treatments:

Apiguard, essential oil of thyme, is one popular non-pesticidal treatment. It is important to use the prepared form, because the essential oil can be caustic and endanger the bees. Apiguard is pre-measured in gel packs for safety. Another natural product is Nozebit: its prime ingredient is extract of oak bark. It is widely used in Croatia, where beekeepers say it is effective.

Other methods to rid mites:

Smoking bees can cause the mites to get detached. If one uses this practice—in fact, any of these practices—it is important to scrape the mites off the boards and toss them: live mites can re-infect bees. John was asked whether, in fact, mites can manage to climb back up into the hive: he said that it’s not clear. Most mites will stay down and be eaten by passing bugs. Best practice is to treat one’s hives as hygienically as possible and scrape mites off those bottom boards.

What approach works best to rid mites?

For many beekeepers, however, the standard pesticides are still important tools to manage mite populations. It can be a double-edged sword, because the more you use, the more mites may build up resistance. Also, for those with a large number of hives, the powdered sugar and related techniques can prove too labor intensive to be practical.

At the end of the day, though, for John, natural methods like sugar are not enough. John uses a combination of medications, culture, and hygiene to combat mites. He uses some medication for prophylaxis in fall, but keeps this to a minimum. He is willing to see some mite load, as long as it is not a huge load: when he sees the signs, then he treats, rather than overwhelming his hives with pre-medicating. It's also important not to pull the frames out too often, disturbing the bees. Spring, when you reverse hive bodies, is a good time to dust. John does not dust automatically: it depends on the hive population and if it seems needed.

For Nocema, John uses mite strips: they work, though they are not good long-term prophylaxis. It is better to build up bees' resistance by keeping them healthy. Fumigellen-B (spelling?) is one approach. Formic acid, also called Mite-Away, is another approach. John also uses a stimulant called "honeybeehealthy," which has lemon grass, among other ingredients. He mixes this with Nozebit (see above: the Croatian approach).

Bees Around the World:

Worldwide, there are 20,000 species of bees (out of 950,000 insect species overall). Of these, there are only 7 species of honeybees. Of those 7, only two are cultivated: one western, *apis mellifera*, and six Asian, *apis cerana*. *Apis mellifera* has 29 subspecies. It is called the Old World Bee, but it is not exclusive to Europe. These two cultivated species are cavity nesters who nest in multiple combs. That is what makes them useful: the combs are accessible, not massive (like some of the tree nests of which John showed us pictures).

Apis mellifera has European, Mediterranean, Middle Eastern, African, and Asian subspecies. They have been cross-bred and hybridized. *Apis m. carnica* and *apis m. ligustica* ("Italian") are the two most popular among beekeepers. Originally, the bees first brought to the U.S. in the 17th century were German, dark bees, but they were hard to work with.

Africanized bees, *apis m. scutellata*, the "killer bees" of *Saturday Night Live* fame, are a cross with European bees that got started in Brazil. These bees are still *apis mellifera*, but a different subspecies noted for their aggression: they take over other hives. *Bee Culture* magazine has reported that these Africanized bees are beginning to get acclimatized and move north: they may reach Wisconsin soon. (*Bee afraid . . . bee very afraid. . .*)

Professor Charles Whitfield at the University of Illinois-Champaign/Urbana works on African bees. He reports that there have been three migrations of honeybees out of Africa, and that, in fact, *apis mellifera* may have its roots in Africa. John showed a slide of a 15,000 year old cave painting near Valencia, Spain, showing a person capturing bees, suggesting how old the practice of cultivating bees is.

Breeding hybrid bees to maximize the advantages of different subspecies has been a focus of beekeepers for hundreds of years. John told the story of a film about Brother Adams, the monk of Buckfast Abbey in Devon, England, who developed a hybrid bee because the English dark bees had been decimated. He bred resistant hybrid bees called Buckfast Bees, after his monastery. The film is called *The Monk and the Honeybee*, and John is working to get the rights to see copies on DVD soon.

Russian bees come from the Primorski region on the Sea of Japan: these bees may be resistant to the Varroa destructor mite. Russian bees are mean to work with, but resistant to disease, in part because of their hygienic behavior of cleaning each other.

John was asked if there is a tradeoff between disease resistance and honey production. He said that it has been studied and is hard to specify, but that there does seem to be a degree of tradeoff, yes.

The Eastern (Asian) honeybee is not *apis mellifera*: there is a great diversity of subspecies among *apis cerena* and others. Would those bees survive here? It is not clear. John showed some amazing pictures of huge gray hanging tree nests of some Asian bees: these are simple combs, not cultivated. Finally, he showed us pictures of dwarf bees, famed for their “waggle dance.”

Buying Bees: kinds, costs, and origins

Bob asked where package bees are from. John answered that Ruhl’s sells Olivera’s Bees, from northern California: they can supply breeders longer than could his prior suppliers, Conant’s (spelling?). Bees are all Olivera’s does, and northern California is a good climate for breeding bees. Bees purchased from Florida and Georgia have proven to be problematic for reasons not clear.

Costs of buying bees: Ruhl’s charges \$78 for Italian bees, the gentlest to work with, and \$76 for Carniolan bee varieties. Carniolans can swarm faster than Italian bees, and new beekeepers might not catch them before they swarm. Carniolans have some advantages, though: they are mountain bees and do well at elevations.

The cost of bees will go up a little this year, but John is trying to keep it down. For the money, beekeepers get a three pound package that includes a queen. John is also selling a nucleus hive from an Oregon local: with this package, beekeepers get some good brood and a queen; the down side is that it is a management problem to cycle out the older frame, so those who buy this way should be aware of that possible risk.

Ruhl’s nukes are \$87. The wooden nuke boxes of recycled lumber cost \$15 deposit per box: if you bring it back, you get the money back, or you can just keep the box and use it again.

John was asked about the advantages and disadvantages of 3/8 of an inch vs. 3/4 of an inch hive entrances. John noted that it is easier to buy bigger and then use hive reducers as needed. Of course, one could just stick in a bit of wood for free.

We thanked John for his very informative talk and took a break so that members could look at the products he brought with him from Portland.

Minutes of January 14, 2009 Business Meeting:

Bob Harris called the meeting to order at 7 p.m. and introduced John Edwards, our speaker. A summary of his talk is above. Business meeting started at about 8:30 p.m.

Minutes of the 11/12/08 meeting were *approved*.

News Items: Susanne gave a brief report that about 16 people attended December's hive-building workshop at Bob's Rose of Sharon Farm. A good time was had by all. Sarah Roebas, our Treasurer, built her first hive box and filled it with frames. Once we get a website up and running, we can post photos from the workshop.

LCBA Bylaws: Peter Glover summarized the revisions of the bylaws suggested by members at our November meeting and by Sheila Gray, our Washington State University Extension liaison, who was not able to attend in November. The bylaws with revisions had been distributed via email in advance of the meeting with all changes noted in bold italics. Copies of the final version of the revised bylaws are attached in a separate Word file.

The only question raised about the bylaws was: does LCBA need a formal budget? We agreed that as a fledgling organization, it is hard to know ahead of time what we will need to spend. We agreed that our focus is educating first ourselves, then others, and so we probably do not need a formal budget at this point. Later, we may wish to run a scholarship program to encourage new/youth beekeepers. For now, Bob suggested that the Treasurer simply keep track of dues and expenses and report these to the Board, who will update the membership in brief reports at monthly meetings.

Members *approved* the bylaws as presented by acclamation. Bob thanked Peter for his work in framing clear, accessible, comprehensive bylaws for LCBA and members expressed appreciation, as well.

Next steps:

LCBA Bank Account: Bob, Sarah, and Norm Switzler (our vice president) will go to Washington Mutual to set up a bank account for LCBA using the \$200 seed money grant that Bob obtained from the Farm Bureau. If we do this quickly, before Chase completes its takeover of WAMU, LCBA will be "grandfathered" in with no monthly fees on the account.

LCBA Website: We agreed that we would like LCBA to have a homepage online. Bob suggested that Rose of Sharon Farm's website could host it at no

cost to LCBA. We could use the webpage for both information and outreach. Items to post on the website could include:

- * newsletters;
- * bylaws;
- * summaries of our speakers' talks for members' reference;
- * links to informational sites, other beekeepers' organizations, and to vendors like

Ruhl Bees;

- * names and contact information for LCBA officers;
- * names and contact information for LCBA "Bee Mentors"; and
- * a *secure* list of members' contact information (emails and phone numbers).

Sharette Giese noted that there are ways to post contact information for members, yet shield these from public view (perhaps with an LCBA password) to protect members' privacy: her home-schooling group does this.

Dues: In the bylaws, \$24/year (for individual and family memberships alike) is listed as our dues rate, with our year beginning in October. Dues will be pro-rated, so members would pay \$16 in February.

February speaker: Roy Schaafsma suggested Paul Lundy, the newsletter editor for the Washington State Beekeepers Association. Paul is interested in meeting with us; contact with the statewide organization could help us find contacts and learn about upcoming events of interest to our group. Susanne will contact Paul.

Respectfully submitted,

Susanne Weil

LCBA Recording Secretary

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