

Lewis County Beekeepers' Association: *December 2010 Newsletter*

Season's Greetings

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Upcoming Events:

December 8: LCBA Special Workshop: Making Soap from Bee Products

Where: Newaukum Grange (see directions, Dec 8 Holiday Potluck, below)

When: 4 p.m.

Cost: FREE ☺

Christmas is coming—are you looking for some sweet & fragrant stocking-stuffers? Just in time for the holidays, Jamie Allwine will lead participants in this hands-on soap-making workshop. Soaps should be set up and ready to take home by the end of our holiday potluck, which follows. This workshop is free to LCBA members & folks thinking about becoming members. Please let Susanne know by Sunday, December 5, if you plan to attend, so that she can let Jamie know how many supplies to bring (email susanne.beekeeper@gmail.com or call 360 880 8130). *Thank you, Jamie!*

December 8: LCBA's 2nd Annual Holiday Potluck!

Where: Newaukum Grange

When: 7-9 p.m.

What: Good food, good fellowship, door prizes, & more!

After dinner: brief monthly meeting & our traditional Beekeeping Q&A.

Please Bring: a dish of food to share & a plate, cutlery, & cup to eat/drink from. The Grange has tables & chairs, 3 ranges, a refrigerator, & plug-ins for hot pots. LCBA will provide coffee, tea, hot chocolate, & napkins.

Directions to Newaukum Grange, 104 Browns Road East, Chehalis, WA from I-5, Exit 77:

- After exiting, take Hwy 6 West.
- Left onto Riverside Rd.
- Riverside Road turns into Shorey Rd.
- Stay on Shorey Road until stop sign at Hwy. 603: Grange is across the street.

Questions? Contact Susanne Weil, LCBA Secretary, at susanne.beekeeper@gmail.com or by phone: 360 880 8130.

January 12: LCBA Monthly Meeting

Where: Old Chehalis Courthouse

When: 7 - 9 p.m.

What: Tentative program: Paul Lundy of WSBA may be able to join us for discussion of Pacific Northwest Bee Losses, possible approaches, and more. Also: news of spring events, and our traditional “Bee Q&A.”

Later in January, Date TBA: Our Third (!) Annual Hive Building Workshop at Rose of Sharon Farm.

Notes from Our November 10 Meeting:

President Bob Harris welcomed a hearty cadre of students from his apprentice beekeeping class to their first LCBA meeting. We hope to see you folks at our December 8 potluck!

- **Part I: “The Monk and the Honeybee”:** we watched about 40 minutes of this excellent film about English Benedictine Monk Brother Adam’s quest to breed the “Buckfast Super Bee”—after a mysterious disease wiped out all native honeybees in England except Italian cross-breeds. This film has absolutely stunning live footage of life in the hive, honeybee insemination, and more: it was a terrific prelude to the information from the Beekeeping conference. Everyone thanked LCBA member Gary Stelzner for sharing this rare, and special, DVD!
- **Part II: Summary of key information of interest to hobbyist beekeepers from the Northwest Corner Beekeeping Conference, October 28-30, 2010**
 - **Co-Sponsored by the Washington State Beekeepers Association and the Oregon State Beekeepers Association, Hood River, Oregon**

Conference Theme: Honey Bee Losses, How to Keep Our Bees Alive

Susanne Weil, Peter Glover, and Roy Schaafsma all attended this conference. We all were very impressed by the efforts scientists made to present cutting edge research in terms that hobbyists and commercial beekeepers could follow (or mostly follow. . . .).

Susanne: I do have to admit that at moments during the conference, I was reminded of what Huckleberry Finn said when he tried to read Pilgrim's Progress: "The statements was interesting, but tough." What follows is a summary of issues I thought LCBA members would find particularly interesting. If anyone would like my detailed notes of specific talks, please email me at susanne.beekeeper@gmail.com and I'll send them along!

*** Honey Bee losses: Nationwide & in the Pacific Northwest**

U.S. Bees have been in decline for a long time:

- 1945: roughly 5 million honey bees
- 1981: 4.2 million
- 2005: 2.1 million (Cobey 2010)

Sudden collapses of colonies are not new: they have been periodically reported over the past century or longer:

* 2007 study showed over 20 specific incidents of large-scale colony losses since the late 1860s

* 1915, Portland, Oregon: "disappearing disease" (Caron & Sagili 2010)

2007 – 2010 U.S. Colony Loss Data: (from Apiary Inspectors of America and USDA)

2007: 31.8%

2008: 35.8%

2009: 28.6%

2010: 34.4% (Caron & Sagili 2010; Pettis 2010)

Jeff Pettis commented: these figures reflect only fall/winter losses, so the situation is even worse. Dewey Caron and Ramesh Sagili commented, "Clearly such big losses are of great concern and unsustainable in the long run."

2009-2010 Washington State Colony Loss Data

(Dr. Dewey Caron, who spoke to LCBA last April, provided this information from his talk titled “National Bee Loss Survey and Evaluation”: watch for the complete version in the February 2011 *American Bee Journal*):

Three 2010 Washington surveys were done:

WSBA: WA State Commercial / semi-commercial beekeepers: loss rate: 38.7%
* 29 respondents)smallest operation = 194 colonies)
* Started winter with 87,384 colonies; lost 33,783
(Eric Olson, March 2010 WSBA newsletter)

Also WSBA: WA Hobbyists: loss rate approximately 25%

- * 80% of respondents normally keep 1-20 hives
- * Only 32% treated for Nosema in fall 2009
- * To treat for mites: most used fumigants like Thymol, essential oils or formic acid
- * Feeding: most fed with either a combination of pollen substitute patties & sugar syrup, or sugar syrup alone
(Paul Lundy: March 2010 WSBA Newsletter)

Dewey Caron: Survey of southwest of Cascades hobbyists: 40% losses

- * Lewis and Cowlitz Counties—16 respondents
- * Loss numbers close to the larger beekeepers of the state (38.7%)

- * Mail survey respondent commercial beekeepers reported lower losses (24.4% in Caron survey vs. 38.7% in Olson survey; about same #s of colonies (70,719 in Caron’s vs. 87,384 colonies in Olson’s)

Why? Many factors (information from Jeff Pettis’ talk):

- Late 1960s: parasitic mites introduced
- The decline started before the mites arrived—they worsened matters, though
- See <http://www.nap.edu/catalog/11761.html>
 - National Apiculture Society 2007
 - “status of pollinators in North America” report
 - ALL pollinators in decline – linked to 3 key factors:
 - Habitat loss
 - Pesticides
 - Monoculture in agriculture (Pettis 2010)

Why do beekeepers think they are losing colonies? This has changed over time:

- Beekeepers who gave starvation as the primary reason (41% of his sample)
 - lost 27% of their bees

- Beekeepers who gave poor queens as their reason (22% of his sample)
 - lost 27% of bees
- Beekeepers who gave mites as their reason (17%)
 - lost 25% of bees
- Beekeepers who gave CCD as their reason (7%)
 - lost 57% bees (Pettis 2010)

Beekeepers who saw CCD as the problem had the biggest losses.

Colony Collapse Disorder: “a syndrome characterized by a set of dramatic effects”:

- rapid loss of adult worker bees
- virtually vacated colonies that have few or no dead bees left behind
- vacated colonies are left with excess brood and queens with a small retinue
(Pettis 2010)

What warning signs could show that CCD is on the way?

- * Poor brood pattern (1.49x greater chance to die)
- * Parasitic mite syndrome, called, rather vividly, “**snot**”:
 - * you’ll see white larvae dying in the bottom of the cell
 - * almost 5x as great relative risk of bee die-off
- * “Queen event” (2.71x as great a risk) (Pettis 2010)

However: “no single factor has been identified as the reason for the elevated losses documented since the winter of 2006/2007. Although pathogens are actually killing the bees, the reasons why honey bees appear to be so susceptible to the pathogens is a source of considerable debate and study” (Caron & Sagili 2010).

Pettis’s working hypothesis:

- when multiple stresses are in play, bee lifespan declines faster
- especially true when diseases are added to the mix
- Primary stresses leave bees vulnerable to secondary pathogens:
 - for example, varroa mites (primary stress) introduce viruses (secondary pathogens)

- poor management, poor nutrition, and pesticide exposure (primary stress) introduce nosema (secondary pathogen)
- Multiple stress factors complicate matters:
 - transporting colonies
 - exposing them to pesticides.
- Beekeeper practices, crop protection methods are harming bees (Pettis 2010)

An OSU study showed how common Varroa and Nosema are:

2009: 85% of sampled hives had Varroa

39% of sampled hives had tracheal mites

48% of sampled hives had Nosema

Follow-up 2010 study will correlate hive/colony survival w/ disease reports (Sagili 2010)

Monoculture: 3 year study showed how summer/fall nutrition relates to colony loss:

- * greater plant diversity / greater honey yield were significant for colony survival
- * diverse sites yielded higher number of grams of pollen per day – significantly linked to colony success (Pettis 2010)

Fungicide exposure: 2008-2010 study (DiGrandi-Hoffman 2010)

Microbes help bees digest, so what happens if bees eat contaminated pollen?

- Colonies whose bees ate sprayed pollen: 20% successful queen replacement
- isolated bees ingested relatively “clean” pollens
- those who foraged took in pollen contaminated with fungicides
- Queen cells grew better in isolated group than in those fed with sprayed pollen
- Isolated bee colonies: 75% successful queen replacement
- Colonies whose bees ate sprayed pollen: 20% successful queen replacement
 - Many queen cells present. But. . .
 - Something went wrong in pupal stage & workers chewed them down
- ***Could explain some losses: fungicide may affect colony ability to requeen***

- *CCD could be “downstream effects” of a compromised microbial community—*
 - *that is, what happens when eating food contaminated with fungicide messes up bees’ digestive system*
- *Important caution: study only looked at one type of fungicide*
- *Next stage of research will ask if any fungicides are less damaging*
(DiGrandi-Hoffman 2010)

Pesticides: have sub-lethal effects (WSU study: Boyle 2010)

- pesticides can accumulate in brood comb and persist for years (Wallner 1999)
- newly applied pesticide can react synergistically with previously applied pesticide: (Johnson *et al* 2009)
- Does re-using old brood comb contaminated w/ pesticides affect colony loss?
- Almost half of colonies with clean comb created queen cells
- Only a fifth of colonies with pesticide-contaminated comb created queen cells.

Developing threats to honey bees:

- * New Asian mite (trophylaps)
- * 8 new viruses have been isolated

Loss of genetic diversity: more on that below - California Queen Project (Cobey 2010)

POSSIBLE SOLUTIONS:

*** “Hop Guard” report: a potentially effective Varroa Mite killer**

Dr. Fabiana Ahumada: “Hop Guard (TM) Natural Varroa Mite Control”
“From Beta Tec Hop Products, a Division of John I. Haas, Inc., concerned with applying hop products outside the brewing industry.” Beta Tec works with USDA-ARS Tucson.

(Buyer beware: this is industry-sponsored research. If data and results have been published and peer reviewed, Dr. Ahumada didn’t say where, nor could she share detailed data with this group. However, FYI to LCBA: Susanne has Dr. Ahumada’s

email address— she said that she would be glad to answer questions. If we can generate a set of questions, we can send them and possibly get answers.)

How HopGuard works:

- * Hop Guard grows from research on controlling plant pests with hop acids.
- * They stabilized a beta acid solution from hops in a liquid formula
- * They infused this solution onto cardboard strips about 20 inches long, then sealed the strips in a foil package;
- * Beekeepers unseal package & hang V-shaped strips between the frames
- * Solution drips down & bees rub on the strips, spreading liquid through hive
- * The process provides a quick mite knockdown contact application.

Advantages:

- * HopGuard strips are easy to use
- * They have a short product life in the beehive
- * Strips don't even have to be removed: the bees will break them down.
- * HopGuard producers claim that HopGuard produces a significant mite mortality rate with no negative effect on brood and bees.

HopGuard Trials:

- * *measured mite load on sticky boards 2 days prior to / 2 days after treatment*

November 2009 trial: Arizona:

- Treatment showed an average mite drop of 200 over a two day period

December 2009 trial: Hawaii:

- Compared HopGuard with 2 industrial standard products (she didn't say which ones)
- Compared results with a non-treated control hive
- HopGuard did better than untreated control

- Hop Guard did not do as well as the commercial product (she did not give numbers)
- But HopGuard is organic, so may be more desirable to use with honey bees

April 2010 California trial:

- HopGuard vs. an untreated control (no industrial products this time)
- Again, HopGuard caused a great mite drop.

Hop-Guard residuals:

- tested HopGuard-treated hives vs. control hives
- found no HopGuard residue in the honey that was analyzed

Bee Mortality with Hop Guard:

- no significant difference in bee mortality between HopGuard & control hives
- In Tucson, they had 12 dead bees as opposed to 6 in the control hives
- These numbers equalized after they had the idea of keeping the queen out for 12 days prior to treatment: that way, there were no larvae to be harmed.

Varroa population simulations:

- Compared untreated colony with colony that had HopGuard applied on January 7 and August 15 (2009)
- Both colonies had started the trial with about 10,000 mites
- Graph displayed showed virtual elimination of mites in the HopGuard-treated hive by comparison with the untreated control
- Compared the two colonies: in control hive, without HopGuard, mite population spiked & colony was lost
- HopGuard treated colony - thriving with “very low mite population”
- Additional trial, only treated with HopGuard in August – no spring treatment

- Even with HopGuard, varroa rebounded in 1 - 2 months after initial knockdown: colony was lost by the end of the fall.
- Conclusion: multiple treatments will be necessary

HopGuard Availability:

- HopGuard now commercially available (pending FDA approval - they hope soon)
- HopGuard could be sold in stores starting January 2011: Section 18 paperwork has been submitted in Washington, Oregon, and Idaho
- They anticipate that HopGuard will be approved as a “biopesticide,” because it has been “shown to be an effective ‘contact’ mitocide.”

HopGuard Pricing:

- target price: 60 cents per strip
- buyers would use 2 strips per hive box
- Mann Lake is selling strips now for 60 cents each

Hop Guard Questions for, and answers by, Dr. Ahumada at the conference:

- **Q: All trials were in Southwest states: will HopGuard show similar results in cold, wet Pacific Northwest climate?**
- A: HopGuard was tried in October and November of 2009, during cold, wet weather.
 - (But they didn’t use it in spring, so given that the one-time treatment experiment didn’t work, one wonders how this turned out. . . .)
 - Dr. Ahumada commented that cold does not affect how HopGuard works—but she cautioned that beekeepers would not want to open a hive in the cold and put in something wet.
- **Q: Would it be wise to treat at 14 day intervals, so that as larvae hatch out with mites attached, new mites can be knocked down?**
- A: Since HopGuard is not toxic to bees, Dr. Ahumada saw no problem with treating twice in spring.
- **Q: Does HopGuard affect tracheal mites?**

- A: This hasn't been tested.

Hop Guard Discussion: *during the lunch break on Saturday, 10/30, two beekeepers from Lake Shasta, CA, shared their results after they used HopGuard on a trial basis.*

- Because they raise drones, they tend to get a big mite load
- They used HopGuard with colonies that had not been treated for 8 months
- They found HopGuard very easy to work with
 - Though they cautioned that it is a good idea to wear gloves:
 - HopGuard doesn't burn on skin, but it smells strong
- HopGuard needs to be hung where the bees will rub on it
- They use 2 strips per hive body in the fall and 1 per hive body in the spring:
 - in fall, Hop Guard strips do not last as long: colony is larger by then
 - whereas the researcher said to treat every 14 days, they recommended treating every 10 days in fall
- Every 14 days, they collected cup of bees, put them into alcohol formula, shook the jar, tested; then they ran water over dead bees, found more mites
- They found treatment to be effective, lasting 4 to 6 weeks
- Then Varroa mites came back, so they had to re-treat
- They liked the early spring treatment to knock down mites prior to the big drone production season
- They found that HopGuard did not repel bees
- One gentleman who takes migratory bees to different farms did not treat his stay at home bees, but did treat his traveling bees:
 - He found "no" mites on the traveling bees when out of almond crops;
 - But his stay-at-home, untreated bees had a large mite load
- He treats more often than every three weeks and recommends starting early to knock down the early mite population

- His conclusion: HopGuard “not a silver bullet”; we are still learning how best to use it, but it’s best product so far in his experience--Hiveostan hurt his bees
- He saw no impact on the taste of honey from HopGuard.

Coming in 2011: Another new way to combat Varroa mites (Carroll 2010)

- Drone larvae: most attractive to Varroa mites from 12 hours before they are capped up to mid-capping
- But not all drones have Varroa: do non-Varroa-hosts have repellent odors?
- Experiment: flooded brood comb with a chemical odor from non-host bees
- Result: reduced the mite cell invasion to one-third what it had been before, yet did not interfere with colony functions.
- Now developing in-hive trap
- August 2011: provisional patent for the chemical & trap will become publicly available (Carroll 2010)

Are any sub-species of bees more resistant to Varroa than other sub-species?

Africanized & Russian bees: more resistant than Italians or Carniolans (Carroll 2010)

**** Bee Genetics and queen stock strengthening—California Queen Project (Sheppard and Cobey 2010)***

Loss of Bee Diversity: How did we get here?

- 26 Honey bee subspecies worldwide
- 1600s: first honey bees brought to New World from Europe
- 1859: Italian bees imported (a.m. ligustica)
- 1866: African bees imported (a.m. lamarckii)
- 1877: German bees imported (a.m. carnica: carniolans)
- 1922: Honey Bee Act limited imports of honeybees to the U.S.
- Since 1993: loss of 25% of alleles

- Breeding queen numbers: limited and decreasing, re-stocking industry is hard
- Many feral bees gone (habitat loss, pesticides) – this limited drone production.

How can we fix this? Improve genetic diversity!

Genetic diversity **does** reduce prevalence and severity of diseases and pests
(Tarpy & Seeley 2007, cited by Sheppard & Cobey 2010)

WSU is working on honey bee genetics:

- * Selection and breeding
- * Long-term stock evaluation for Washington conditions (research collaborating with WSBA collaborative apiaries)
- * Honey bee germplasm cryogenic preservation
- * Live egg importation
- Importation of HB germplasm (release with industry partnership) (C&S 2010)

Queen breeders - part of the solution: small, specialized, critical industry

Queen rearing = propagation

Bee breeding = stock selection

Selection has been neglected & needs to become part of process

Monitor Varroa levels and Re-Queen As Needed:

If you see consistently high Varroa drops, possibly queen is not breeding strong enough, resistant enough offspring, so consider re-queening.

New genetic lines will soon be available in the U.S.:

- **2008-11:** WSU's permit extended (renewal pending) to bring in germ plasm (honey bee semen) of 3 most commercially viable subspecies:
 - Italian (a.m. ligustica)
 - Russian (a.m. caucasica)
 - Carniolan (German: a.m. carnica)
- * **2013:** initiation of frozen semen storage

The Goal: * develop protocols for importation to strengthen genetic diversity of HB

The Hope: * increase genetic diversity of U.S. HB

* increase resistance to disease

The Plan: * unite CA queen producers & major U.S. suppliers w/imported semen

* test to find out compatibility, viability

The Future: * **2011:** new carniolan queen line available w/ “splash” of German carnica

* **2012-13:** new ligustica production queen will be available

* **Spring 2013:** new caucasica from Georgia (former USSR) available
(Sheppard & Cobey 2010)

Africanized Honey Bees: Possible Help for Genetic Bottleneck?

Traits of Africanized bee:

* faster development time

* higher swarming rates

* higher drone production

* queens more “attractive”

* sperm competition advantage (non-Africanized queens retain more sperm)

* virgins better fighters

* resistance to pests and disease (Cobey 2010)

- Of course, as LCBA member Tim Giese commented, we all know the pretty substantial down sides of Africanized honey bees!

Stuff to NOT do: Don't feed yogurt or kefir to boost bees' digestive health! Yogurt has toxic effects on bees because of enzymes it contains (Carroll 2010)

Some have suggested that adding probiotics and changing management practices might aid HB health. Just as prebiotics and probiotics (BEANO, yogurt) help human beings, improved microbial management through supplemental feeding might help bees.

However—see above—yogurt can have toxic effects on bees, so research is needed before people start feeding yogurt to bees.

Want to learn more about Bee Nutrition?

We know much about what bees need, nutritionally, but we know much less about who does what in the HB digestion process—bees or microbes—and how nutrition affects the hive overall. Dr. Mark Carroll recommended “**Fat Bees, Skinny Bees,**” a report from the Australian government’s rural industries research and development group. Diet quality has a major impact on outcomes for individual HBs, but different HB individuals may draw more or less on nutrient resources of hives (*e.g.*, queens and drones draw nutrition disproportionate to the amount of food they produce, but each provides important services for the colony). Starvation is only the “final symptom of malnutrition.”

Comments: Tim Geise pointed out that we should not expect that we can simply medicate or breed our way out of our honeybee problems. Many, many stressors are affecting bees, and we must continually strive to be better beekeepers: more hygienic, more informed, and more careful. Human beings must change our behaviors if we want to help the bees survive.

Reference List for Talks, all presented at the 2010 Northwest Corner Beekeeping Conference, October 29-30, Hood River, Oregon:

- Ahumada, Fabiana. “Hop Guard: An Innovative Treatment for Varroa.”
Anderson, Kirk. “Microbial Ecology of Social Insects/Honeybees.”
Boyle, Natalie. “An Apiary-Wide Study of Sub-Lethal Pesticide Effects on Colony Health.”
Caron, Dewey, and Ramesh Sagili. “National Bee Loss and Evaluation.”
Carroll, Mark. “Effects of Nutrient Processing on Honey Bee Nutrition and Health.”
Cobey, Sue. “Stock Improvement.”
Cobey, Sue, and Steve Sheppard. “WSU Honey Bee Breeding and Germplasm Importation 2010.”
De Hoffman, Gloria. “Effects of Fungicides on Honey Bee Physiology & Colony Health.”
Pettis, Jeff. “CCD in the United States: Are We Making Progress?”

Notes from Our November Business Meeting:

As it was getting late, we held a brief meeting. Bob reported that the Apprentice Beekeeping course via WSU-Extension will run again in January. Also, in late January or early February, we will again have our hive building workshop at Bob’s Rose of Sharon Farm in Chehalis. The December 8 Holiday Potluck and the Soap Making workshop, also December 8, both at the Newaukum Grange, were announced. Details & directions are above, under “Upcoming Events.”

The Geises have used equipment to donate to newbees, and Bob has some donated materials from a gentleman in Napavine. If you would like to find out more, please contact the Geises at woogieb@compprime.com or Bob at Robert@roseofsharonfarm.com (or see their phone numbers under Bee Mentors, below).

December Recipes: Have a Honey of a Holiday!

(Recipes courtesy of “Home Is Where Your Honey Is: A Collection of Recipes” from the National Honey Board. Visit www.honey.com!)

Whiskey & Clove Honeyed Ham (12 servings)

Ingredients: 3/4 cup of *honey*
1 – 1 ½ Tablespoons bourbon whiskey
OR substitute 2 teaspoons of vanilla extract
½ teaspoon ground cloves
1 bone-in, fully cooked, spiral sliced ham—about 5 lbs.

Process: In small bowl, combine honey, bourbon, & cloves till well blended
Place ham, cut-side down, in roasting pan
Brush with honey mixture
Cover pan with foil
Bake @ 275 degrees F 1 hour or till heated through
Remove foil from ham and increase oven temp to 425 degrees F
Brush with honey mixture
Bake 10 minutes or more or till ham is golden brown
Remove from oven and place on serving platter
Pour juices over ham

Are youngsters coming to your house for the holidays?

Try: *Sweet & Sloppy Joes: makes 4 servings. . . .*

Ingredients: ¼ cup *honey*
¼ cup chopped onions
¼ cup chopped celery
¼ cup grated carrots (sneak those veggies in!)
2 Tablespoons vegetable oil
1 lb. ground turkey OR hamburger
½ cup tomato paste
3 Tablespoons water
1 Tablespoon vinegar
2 teaspoons Worcestershire sauce
1 and ½ teaspoons chili powder
salt & pepper to taste
4 hamburger buns

Process: In large pan over medium heat, sauté onions, celery, & carrots in oil till soft
Stir in turkey OR hamburger
Cook for 5 minutes, stirring frequently, till meat is browned & crumbly
Stir in tomato paste, **honey**, water, vinegar, Worcestershire sauce, & chili powder
Simmer, covered, 3 to 5 minutes
Season to taste with salt & pepper
Place on buns and serve!

A nice side dish to accompany a holiday main course:
Asparagus with Honey Garlic Sauce (Makes 6 to 8 servings)

Ingredients: 1/3 cup **honey**
2 ½ lbs. fresh asparagus
Salted water
½ cup Dijon-style mustard
½ cup dark ale or beer
1 clove garlic, minced
½ teaspoon dried thyme
½ teaspoon salt

Process: Stand asparagus stalks in boiling salted water
Steam them, covered, 6 to 8 minutes or till barely tender
Drain
Combine mustard, ale, honey, garlic, thyme, & salt
Mix well
Pour over steamed asparagus & serve!

Ginger-Bee Cookies: makes about 3 dozen cookies

Ingredients: 1 & ½ cups **honey**
¾ cup butter or margarine, softened
1 egg
5 cups all-purpose flour
2 teaspoons baking powder
1 Tablespoon ground ginger
1 Tablespoon ground cinnamon
1 teaspoon ground cloves

Process: in large bowl, cream honey & butter till light & fluffy
Beat in egg

Add flour, baking powder, ginger, cinnamon, & cloves
Mix till combined
Wrap dough in plastic wrap and refrigerate at least 2 hours
When dough is chilled, divide dough in half; return one half to refrigerator
Dust work surface & dough with flour
Roll out dough to ¼ inch thick
Cut into desired shapes using cookie cutter
Transfer to well greased baking sheet
Bake @ 350 degrees F. for 10 to 12 minutes
Remove cookies from sheet and cool on wire rack

Enjoy!

LCBA NEWS & ANNOUNCEMENTS:

Paul Lundy reports that the December WSBA Newsletter is out and has been posted on the WSBA website (dang, he beat me again!!). You can access it by going to:

Need Help with Your Bees? Call LCBA Secretary Susanne at 360 880 8130 or email Susanne.beekeeper@gmail.com, and she will put you in touch with a mentor in your area.

Free Swarm & Colony Removals: Swarm/colony removal is a free service that LCBA, as a nonprofit educational organization, offers the public. See list of beekeepers, above, to call if you—or someone you know—needs help removing a colony of honeybees. Also, if you're interested in riding along on a removal to observe and learn more, give Susanne a call (see # above): it's free, fun, & educational. This is unlikely to be going on again till next spring and summer, but if you're interested in joining the Bee Team, call!

Want Bees & Equipment? [2012 note: see the beekeeping supply options link on our website]

Washington State Beekeeping Association Beekeeper courses: a new Apprentice course will be coming in early spring 2011. Our LCBA President, Bob Harris (he of many hats, including the "Beekeeping Hat of Authority"!), is the contact person for this and all our WSBA classes: if you are interested, email Robert@Roseofsharonfarm.com. The apprentice class is not hard or long; the Journeyman and Master Beekeeper courses, however, are much more involved. WSBA hasn't given a master beekeeper certificate for years. 5 years experience and 30 service points are required, and the prospective Master Beekeeper must write a paper; since

WSBA added that requirement, no one has done it. Also, students need some lab experience.

LCBA Swap Meet—real or virtual! Got bee equipment to sell, swap, or give away? Email or call Susanne—see above. Have a “bee wish list”? Email that, too.

LCBA T-shirts and caps: Queensboro has lowered their prices on LCBA T-shirts, long-sleeved shirts, caps, etc. They offer an unconditional 10 year guarantee and will replace items if they get torn or broken. To order online, visit <http://www.queensboro.com> and use our LCBA logo number: **11342127**.

Respectfully reported—bee happy for this holiday season and the new year!
Susanne Weil, LCBA Secretary
susanne.beekeeper@gmail.com
360 880 8130