



Kelley Beekeeping

SERVING THE BEEKEEPER SINCE 1924

ISSUE 59: JULY 2015



IN THIS ISSUE

From the Queen's Court <i>by Melanie Kirby</i>	2
American Bee Research Conference Abstracts	4
Book Review: Backyard Beekeepers of the Bay Area	10
Beekeeping 'Round the Globe: Ethiopia, Part I	13
Bee Thinking About: Who Controls Our Food? <i>by Nick Dearden</i>	15
Good Food Awards: Enter Your Honey	16
Upcoming Events	18-23



From the Queen's Court

by Melanie Kirby

Oh what a month it has been! Our initial spring start up was weather challenged, like most places in the nation. We had a lot of spring moisture, which is always blessedly received. But it did affect our timeline for splitting and of course, also impacted the nectar flow with late frosts and hail. We have learned over the past decade to roll with the punches—as they say. Take the positive and run with it and learn to adapt to the negatives. All in all, it paints a three dimensional portrait of humbleness!



Our intern arrived at the end of May and has now completed her first month of intensive beekeeping. She has prepped nuc boxes and supers, put together new frames, modified combs for all the diverse hive designs that folks are curious to try. And now, catching queens. Next up is honey harvesting. I'm sure she'll enjoy trying to get sticky wax off out of her hair, too.

Nothing like hosting a jubilant and youthful perspective where everything is new. It has been a true delight to see our intern experience the intricacies of honeybee stewardship. She is a trooper—loading and unloading hives after dark; which these days gets later and later. My partner often says that if he can get done with moving bees by midnight, then it is a good night. And thank goodness for the intern, who has been able to help him do that while I cajole our little ones to sleep after a bedtime story. Hard to do when daylight lingers.

Summer solstice just passed with our long days and short nights having hit their apex. Now we will begin to reverse that timeline and trek towards equal periods of day and night. By the fall equinox, we'll all have hopefully reached that golden pot of honey at the end of the rainbow. This golden pot isn't only filled with honey, but with positivity as well. If we reach it, we tend to feel uplifted with the season and are grateful for the reward of having enough for the bees and enough to harvest and share.



**Kelley
Beekeeping**

SERVING THE BEEKEEPER SINCE 1924

Editor

Melanie Kirby
Editor@KelleyBees.com

Website & Ecommerce

KelleyBees.com

Address

807 W. Main St.
P.O. Box 240
Clarkson, KY 42726

Phone

270-242-2019
800-233-2899

© 2015 Kelley Beekeeping
All rights reserved.

CALL FOR PHOTOS

Want to see your bee-related photo on the cover of this newsletter? Send photos to editor@kelleybees.com

Queen's Court *continued*

I hope that everyone is able to see that golden pot of honey at the end of the rainbow- and to manage its creation with conscientious stewardship. That seems to be the key to the management control room: learning how to support our landscapes, our livestock, and each other with conscientious approach and reverence. For what more can we ask of the heavens? By providing sunlight, moisture, flowers and life, all we can do is be thankful for the season and collaborate with Mother Nature to nurture the process.

May you and yours have a fun filled summer season! Roll with the punches, make lemonade out of lemons or add cherries on top if you've already got cream. Either way, let's take care of the bees and our landscapes! For love of the green Earth! And for love of country—let's celebrate Independence Day like true beekeeping patriots—eating hotdogs made of pollen, in wax baguettes with honey mustard!

Happy Independence Day!
Melanie Kirby



Celebrate the 4th of July safely!!!

Melanie Kirby has been keeping bees professionally for 19 years; having learned from bees, their keepers, and Mother Nature in 4 countries and 5 states. She raises survivor stock queen bees with her better half and their two children, two dogs, and two cats in the southern Rocky Mountains. She can be reached at editor@kelleybees.com



PHONE • 800-233-2899 • 270-242-2019
M–F 7am–5pm CST • SAT 7:30am–12pm CST

WEBSITE & ECOMMERCE 24/7 • KelleyBees.com



Bee Science & Health

ABRC Proceedings, Part I

Abstracts from January 2015

American Bee Research Conference took place in Arizona this past January 2015. As part of an effort to introduce beekeepers to the science behind bee health, we have permission to reprint the abstracts for Kelley Beekeeping readership. Don't be afraid of the jargon- if a term is unfamiliar, you can always look it up. The abstract proceedings are divided into three parts. Part II will be published in the August 2015 KB issue; and part III will be published in the September 2015 KB issue.



1. Ahumada, F. - VARROA TREATMENTS: EFFICACY AND ECONOMIC IMPACT

AgScience Consulting, 2102 E. Blacklidge Dr, Tucson, AZ, 85719. E-mail: fabiana@agscience-consulting.com.

Varroa destructor continues to be a threat for the beekeeping industry despite the efforts by beekeepers to control it. Commercial and hobbyist beekeepers suffer tremendous colony losses throughout the year due to mite infestation. The repeated application and misuse of a variety of acaricides over the years led the mites to become resistant to these products and chemical residues have been found in brood combs as well as in apiculture products (Mullin, C.A et al; PLoS One 5: (3) e9754). The high levels of miticides and agrochemicals found in honey bee colonies have been suspected to cause honey bee losses as well as affecting brood development and adult longevity (Wu, J.Y et al; PLoS One 6: (2) e9754). Residues of such control agents in hives and their negative effects on bee health have become an important issue and need to be taken in consideration when making management decisions for Varroa control treatments.

The current field study was set up in Monterey County, CA and Mr. Gene Brandi provided forty-eight full size colonies. Pre-treatment mite population and colony strength were measured in all colonies. A set of twelve colonies with equalized mite levels was randomly assigned to each treatment group. Apiguard, Mite Away Quick Strips (MAQS) and Apivar were applied following manufacturer's instructions. Any adverse post-treatment effect on bees and/or brood was noted. All queens were marked at the beginning of the study and its presence was accounted for on every colony inspection. Queens were replaced as needed but subject to availability.

Mite levels were monitored from March through November 2014 and treatments were applied in Spring and Fall. The results show that mite levels started to increase in June achieving its highest peak in August. At this time, the first set of fall treatments were applied followed by consecutive treatments in late fall to reduce mite levels before the winter season. Mite levels in Apivar colonies remained low over time but increased in November. Mite levels in Apiguard and MAQS were higher than Apivar needing additional treatments. From March through November, Apivar colonies received 3 treatments, MAQS colonies 4 treatments and Apiguard colonies 5 treatments. Colony size was recorded and the number of frames of bees and brood was similar among the treatments and no adverse treatment effect on

colony size was observed. Colony losses were recorded for all treatments and the highest percentage was observed in September especially in MAQS colonies. Queen losses were also recorded and the highest percentage was observed in June on MAQS and Apivar colonies. Queen losses for Apiguard remained low until October where a second peak was observed in all treatments except for MAQS colonies. It needs to be mentioned that MAQS colonies received half of the recommended dose of 2 pads/colony due to the beekeeper's colony configuration.

Since this is an ongoing field study, the results obtained so far should be considered as preliminary, and further conclusive data will be presented later at the conclusion of the study on June 2015.

A complete statistical analysis will be performed at the end of the study to determine the efficacy on mite levels and the economic impact. This *Varroa* treatment comparison study and the complete economic impact evaluation will provide beekeepers with a detailed analysis of the cost of each treatment and help them make decisions about cost-effective treatments for their operation.

2. Andino, G.^a, Gribskov, M.^b, Anderson, D.^c, Roberts, J.^c, Hunt, G.^a - SURVEY OF VIRUSES IN *VARROA JACOBSONI* MITES REPRODUCING IN *APIS CERANA* AND *APIS MELLIFERA* HOSTS

^aDepartment of Entomology, Purdue University, West Lafayette, IN.

^bDepartment of Biological Sciences, Purdue University, West Lafayette, IN.

^cCSIRO Ecosystem Sciences, Canberra, ACT 2601, Australia.

3. Borba, R. and Spivak, M. – EFFECTIVENESS OF A PROPOLIS ENVELOPE IN REDUCING AMERICAN FOULBROOD SYMPTOMS IN HONEY BEE COLONIES University of Minnesota, 1980 Folwell Ave. 219 Hodson Hall. St. Paul – MN 55117. Email: rsborba@umn.edu

Honey bees have immune defenses as individuals and as a colony (e.g., social immunity and social immunization). Social immunity describes colony level anti-parasitic and anti-pathogenic protection characterized by collective defensive behaviors, spatial organization, and regulation of contact among nestmates (Cremer and Sixt, 2009. *Philosophical Transactions of the Royal Society*, 364(1513), 129-142). Social immunization is a behavioral defense that promotes colony health by protecting naïve individuals through social contact with infected individuals.

One form of social immunity in honey bees is the collection and deposition of antimicrobial plant resins in the nest as a form of cement, called propolis. The presence of propolis on the inner walls of the nest, a propolis envelope, acts as an external antimicrobial layer that enshrouds the colony, which benefits individual bee immune defenses (Simone et al., 2009. *Evolution*, 63(11), 3016-3022.). The individual and social immunity benefits derived from propolis stem from the diverse composition of resins, each with their own complex mixtures of antimicrobial compounds. Colonies experimentally provided with a propolis envelope had significantly lower levels of a fungal pathogen, *Ascosphaera apis*, as compared to colonies without the propolis envelope (Simone-Finstrom and Spivak 2012. *PLoS one*, 7(3), e34601). In this study, we tested whether clinical symptoms of American foulbrood (AFB), caused by the bacterial pathogen *Paenibacillus larvae*, were reduced in bee colonies with a natural

propolis envelope compared to colonies without the envelope. We also tested the effect of this bacterial infection on the immune response of individual bees. Our results indicated that colonies with a propolis envelope were able to significantly reduce the levels of AFB infection two months after the appearance of the first clinical symptoms ($F_{1,57} = 5.43$; $P = 0.001$). Additionally, bees from colonies with a propolis envelope mounted a stronger immune response after challenge with *P. larvae*, as indicated by significantly higher transcript levels of the antimicrobial peptides hymenoptaecin and apidaecin ($F_{1,147} = 12.31$; $P = 0.0006$ and $F_{1,146} = 15.10$; $P = 0.0002$, respectively).

We also tested if honey bees use social immunization as a behavioral defense, as do carpenter ants. Carpenter ant workers infected with a bacterial pathogen increased the frequency of trophallaxis with naïve nestmates sharing droplets of physiological immune elements (Hamilton et al., 2011. *Biology letters* 7.1: 89-92.). As a result, the naïve ant nestmates acquired some resistance to the pathogen and showed higher immune system activity upon subsequent contact with the pathogen, which increased individual and colony survivorship (Hamilton et al., 2011). Here, we tested the antimicrobial activity of larval food in colonies with and without a propolis envelope, and infected or not with AFB. The larval food in colonies with AFB infection had significantly higher antimicrobial activity against *P. larvae* compared to the two other treatments without AFB infection. Larval food from colonies without AFB infection and without a propolis envelope had the lowest inhibition of *P. larvae* while food from colonies without AFB infection and with a propolis envelope had intermediate levels of inhibition ($F_{3,321} = 9.26$; $P < 0.0001$). Thus, honey bees may display social immunization through feeding larvae food that is high in antimicrobial activity when the colony has symptoms of AFB. The source of the antimicrobial compounds put in larval food (from propolis, or from glandular secretions) requires further study.

4. Brutscher, L., Daughenbaugh, K., Cavigli, I., Garcia, E., Martin, M. and Flenniken, M. – HONEY BEE PATHOGENS AND COLONY HEALTH Department of Plant Sciences and Plant Pathology, Institute on Ecosystems, Montana State University, Bozeman MT

Honey bees are important pollinators of numerous crops (global economic value over \$200 billion annually) and plant species that enhance the biodiversity of both agricultural and non-agricultural landscapes. Since 2006, honey bee populations in the U.S., Canada, and Europe have experienced high annual losses. To investigate the role of pathogens (viruses, bacteria, microsporidia, and a trypanosomatid) on honey bee health we longitudinally monitored honey bee colony health, using colony size as a proxy for health, and pathogen incidence (pathogen-specific PCR) and abundance (qPCR) in commercially-managed honey bee colonies. We determined that overall pathogen incidence in weak and strong colonies did not vary significantly, but that in some operations pathogen abundance (i.e., LSV2, BQCV, DWV) was greater in weak colonies. The majority of honey bee pathogens are (+)ssRNA viruses, which include the Lake Sinai viruses. LSVs were the most prevalent and abundant pathogens detected in bee samples obtained from colonies in Montana and California (2012-2014). To better understand the transmission and pathogenesis of LSVs we performed PCR, strand-specific PCR, and qPCR of individual dissected bees, and mites. We detected a greater abundance of LSV2 in the bee gut and abdomen as compared to the head and thorax, and detected LSV2 in *Varroa destructor*

Bee Science *continued*

mites. Together these results suggest that LSVs can be transmitted horizontally and that mites serve as vectors of LSVs. The prevalence and abundance of the LSV virus group underscores the importance of ongoing studies aimed at characterizing this virus group, and understanding virus-host interactions.

This research is supported by Project Apis m., Montana Department of Agriculture; MSU Institute on Ecosystems (IoE), NIH Idea Program Grant GM110732, Montana State Beekeepers Association, and USDA-NIFA Multi-State-Research Project NC-1173.

5. Carroll, M.J., Saunders, M., Goodall, C., Brown, N. - EFFECTS OF POLLEN DEPRIVATION ON QMP PHEROMONE COMMUNICATION AND QUEEN RETENTION

Carl Hayden Bee Research Center, USDA-ARS, 2000 E. Allen Rd., Tucson, AZ 85719

Honey bee queens signal their presence and reproductive viability to workers through release of Queen Mandibular Pheromone (QMP), a non-volatile pheromone mixture that is removed from the queen's body by retinue workers and maintains queenright status. Queens with weak or altered QMP signal profiles are often replaced by supersedure. We examined the effects of pollen deprivation on QMP emissions and queen retention during the end of a prolonged dearth period. We employed a novel, non-destructive method to measure emissions of QMP from the queen to attending retinue workers such that QMP emissions could be measured repeatedly from the same queen. Queens from pollen-deprived colonies experienced higher rates of supersedure attempts and smaller retinues than queens from pollen-fed colonies. QMP emissions of pollen-deprived queens were altered during colony pollen deprivation, with generally lower component emissions than observed from pollen-fed queens. In particular, pollen-deprived queens released lower amounts of HVA, a QMP component that is much lower in poorly-mated or virgin queens. The changes in QMP profiles may be due to reduced QMP production by pollen-deprived queens or altered interactions with the workers that disperse QMP pheromone to the colony as a whole.

6. Corby-Harris, V., Snyder, L., Meador, C., Naldo, R., and Anderson, K.E. - PROBIOTIC USE OF ACETOBACTERACAE ALPHA 2.2 (*PARASACCHARIBACTER APIUM*) FOR IMPROVING HONEY BEE COLONY HEALTH Carl Hayden Bee Research Center, USDA-ARS, Tucson, Arizona



Healthy honeycomb.

7. DeGrandi-Hoffman, G.^a, Ahumada, F.^b, Zazueta, V.^a, Chambers, M.^a, Hidalgo, G.^a - THE MIGRATION OF VARROA MITES AMONG HONEY BEE COLONIES AND THE EFFECTS ON MITE POPULATION GROWTH

^aCarl Hayden Bee Research Center, USDA-ARS, Tucson, AZ 85719

^bAgScience Consulting LLC, Tucson, AZ, USA

We conducted a study on *Varroa* population growth in colonies established in May from packages. The colonies received miticide treatments, and mite numbers were kept at < 1-2 mites per 100 bees through August. However, by October mite populations ranged from 6.3 to 15.0 mites per 100 bees. We tracked *Varroa* and colony population growth from colony establishment in May to October and compared actual values to predictions from the VARROAPOP population dynamics model (DeGrandi-Hoffman and Curry, 2004 *Int J Acarol* 30:259–274). Though colony size and mite numbers did not differ from model predictions through the summer, in October mite numbers far exceeded predictions based on mite reproduction alone (DeGrandi-Hoffman et al. 2014, *Exp Appl Acarol* 64:171–186). One explanation for this rapid growth in *Varroa* populations is mite migration into colonies.

Others have reported migration of *Varroa* into colonies on foragers with phoretic mites drifting among colonies in apiaries or robbing colonies weakened by high *Varroa* populations (Sakofski et al. 1990, *J. Invertebr Pathol* 103:S96–S119; Kraus and Page 1995, *Apidologie* 26:149–157; Delaplane and Hood 1999, *Apidologie* 30:383–395; Kralj and Fuchs 2006, *Apidologie* 37:577–587; Frey et al. 201, *J Apic Res* 50:138–144; Frey and Rosenkrantz 2014, *Econ. Entomol.* 107(2): 508-515). The increase in mite numbers we detected in the late summer and fall could have been due to mite migration especially since mite numbers in colonies were low when they were established and increased little during the summer.

The purpose of the study reported here was to measure *Varroa* migration in summer and fall and evaluate its contribution to colony mite populations. In Europe, mite migration is reported to be low in spring, and then increase considerably during late summer through October (Frey and Rosenkrantz 2014, *Econ. Entomol.* 107(2): 508-515). Our colonies were started from packages in April. Initial mite counts using alcohol washes estimated phoretic populations to be 0.03 ± 0.02 mites per 100 bees. By November, estimates of phoretic mites increased to 4.3 ± 0.72 mites per 100 bees. Predictions from VARROAPOP estimated mite population to be about 1 mite per 100 bees in November. We consistently detected foragers with *Varroa* entering and leaving colonies beginning in September and continuing through November with a greater likelihood occurring in the afternoon. These mites could have contributed to the greater than expected mite population growth.



8. Downey, D.^a, Rusert, L.^a, Thomas, D.^b, Danka, B.^c – DEVELOPING VARROA-RESISTANT STOCK IN HAWAII BY COMBINING VSH GERMPLOASM AND RECURRENT SELECTION IN A COMMERCIAL HONEY PRODUCTION OPERATION

^aHawaii Department of Agriculture, Hilo, HI

^bHawaii Island Honey Company, Hilo, HI

^cUSDA-ARS Baton Rouge, LA

Bee Science *continued*

9. Downey, D.^a, Chun, S.^a, Follett, P.^b – RADIOBIOLOGY OF *AETHINA TUMIDA* AND PROSPECTS FOR MANAGEMENT USING STERILE INSECT RELEASES

^aHawaii Department of Agriculture, Hilo, HI

^bUSDA-ARS, U.S. Pacific Basin Agricultural Research Center, Hilo, HI

10. Drummond, F.^a, Eitzer, B.^b, Evans, J.D.^c & Leblanc, L.^d – EFFECT OF EXPOSURE IN HONEYBEES TO THE STEROL INHIBITING FUNGICIDE, PROPICONAZOLE, ON FLOWERS OF LOWBUSH BLUEBERRY

^aSchool of Biology and Ecology, University of Maine, Orono, ME 04469, USA (email: frank.drummond@umit.maine.edu), ^bThe Connecticut Agricultural Experiment Station, 123 Huntington St., New Haven, CT 06504, USA, ^cUSDA-ARS, Beltsville, MD 20705, USA, ^dSchool of Food and Agriculture, University of Maine, Orono, ME 04469, USA

A field experiment conducted over a three-year period (2011 - 2013) was designed to assess honeybee colony level effects of propiconazole exposure when foragers visited contaminated wild blueberry flowers. This experiment was a whole field experiment (paired isolated fields: 1 field treated, 1 field not treated) testing residues of propiconazole on flowers under typical pest management applications. In all years, isolated non-sprayed fields and isolated treated fields were selected to place a set of newly established colonies (range 10-20 colonies per field in a year) in each field throughout bloom (period of 1 month). Colonies were monitored every 2-4 weeks both during and after bloom throughout the spring and summer. Propiconazole concentrations in pollen and flowers, colony worker population, brood population, queen presence and health, queen egg laying rate, larval survival, worker longevity, hypopharyngeal gland size, and evidence of disease (molecular markers and dissections) and parasitic mite prevalence were measured. We found that honeybee health affects of the commonly used fungicide, propiconazole, were not entirely consistent among years. Negative effects on bee health were documented. We found that exposure of honeybee foragers to residues on flowers does not reduce colony strength of worker or capped brood populations, nor colony overwintering success. Queen laying and brood survival also does not appear to be affected by exposure to sub-lethal doses of this fungicide. We did find evidence in all three years to suggest that workers reared as larvae during bloom (when contaminated pollen was brought into the hive) resulted in young nurse bees whose longevity is reduced, that neuroendocrine gland morphology is impacted, and that propiconazole residues are repellent to foraging bees.



LIKE US AT
**Kelley
Beekeeping**



KelleyBees.com

Bee Arts

Book Review: Backyard Beekeepers of the Bay Area

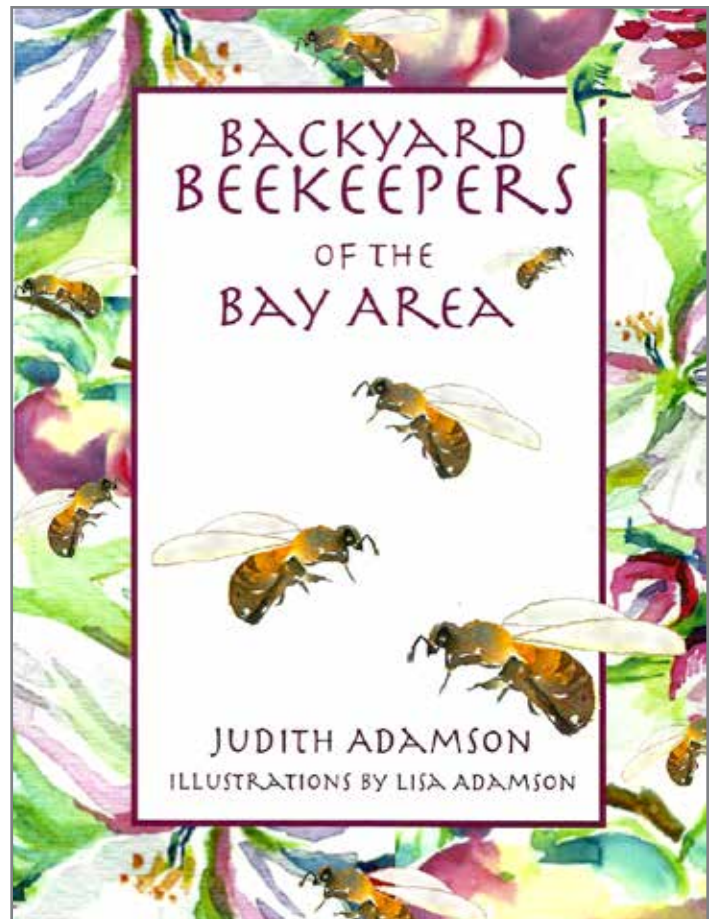
Backyard Beekeepers of the Bay Area by Judith Adamson is a timely and thoughtful look at the current state of the honeybee and the urban apiculture movement in the greater San Francisco Bay Area. Given the undeniable importance of the honeybee to natural ecosystems and the ongoing threats to the honeybee's survival, this book is a compelling and inspiring portrait of a cultural urban movement to protect the honeybee. In its finest moments, the writing brims with near-poetic reverence for both the honeybee and her geographical setting, making the book a captivating and delightful read.

The beginning chapters of *Backyard Beekeepers of the Bay Area* include "An Uneasy Silence," exploring the alarming rate of colony collapse, which continues to stymie the experts. Honeybees have flourished for eons, never needing us, whereas we have always needed them. How ironic that we've jeopardized this vital link in our ecosystem and therefore ourselves. Does the increase of bee stewardship from urban participation help the greater cause to save the honeybee?

The Bay Area, in its wild, uncharted beauty, must have been breathtaking when the indigenous Ohlone inhabited it over three thousand years ago. The chapter, "In Gratitude for the Honeybee" looks at how she got here and her affect on the Bay Area. Although there were many species of wild bees, honeybees were not native to the area. Brought to the colonies from Europe, they were primarily shipped from the Eastern states to Panama, taken across the isthmus and up the coast to California.

There they worked their pollinating magic as settlers introduced fruit trees, vegetables, flowers and trees from other parts of the country. This vast array of botanical life burgeoned into "one sweet bee garden," as naturalist John Muir called California. Today the Bay Area is still remarkably beautiful despite the clumsy footprint of human civilization. Its magnificent topography surrounds us not only on a grand scale but on a personal scale also – backyard and roof-top gardens, tree-lined streets, flowers anyplace there's a patch to grow something. For such natural beauty to be so accessible to everyone in a major urban area is unique, but much of this will not last if bees continue to disappear.

The heart of the book is based on numerous interviews the author conducted with Bay Area beekeepers, ranging from lifelong professionals to eager novices. As each beekeeper tells his or her story, the reader is drawn into an entertaining and informative narrative, transported further and further into into the dazzling world of the honeybee...



Bee Arts *continued*

David Eichorn, the “rogue” beekeeper of Kensington, keeps bees despite an outdated law banning beekeeping in his tiny community. He’s been a beekeeper for over forty years and after all these years, still finds more to discover about the honeybee. One day he was called by Laurie Stern, whose bountiful garden cascades down the slope of her back yard in the El Cerrito Hills. She had discovered a swarm and called to have it removed, but by the time David arrived, she had decided to keep it, feeling the bees had chosen where they wanted to be and belonged there. She and her husband became devoted beekeepers. Laurie and her friend Pat Gibbons, who lives close by, often exchange swarms. Pat is a floral designer and became a beekeeper when a swarm took up residence in a plaster of Paris container in her back yard.

When Chef Foster became chef of the landmark Fairmount Hotel in San Francisco, he initiated putting beehives on the roof. Increasingly concerned about the disappearance of honeybee colonies, he was determined to raise consciousness about bees in addition to being able to use honey in his recipes. Now 200,000 honeybees thrive in four hives at the best address in San Francisco, dining on lavender and other herbs from the rooftop culinary garden. Guests love to watch the bees busily pollinating the herbs, knowing they make the honey, which will later be used in their dinner or as the sweetener for their tea. Spencer Marshall, a beekeeper for over 30 years, tends the Fairmount hives and many others throughout the Bay Area.

Bill Tomashevski, a retired New Jersey police sergeant, moved to the Bay Area with his wife Debra. Bill manages hives on the Google campus, where some of the most tech-savvy brains in the country find relaxation. Physicist Greg Robinson tells his story as he gently touches—gloveless—a chain of bees hanging from the blue hive.

On an acre in the hills of Oakland, Mauro Correa, urban farmer and beekeeper, has turned the land once overgrown with blackberries and fennel, into a spectacular mini-farm with herb and vegetable gardens, native plants and flowers, fruit trees, chickens and ducks for eggs, and several beehives to keep it all well pollinated. An anomaly amongst residential and commercial buildings, the farm must be what Oakland was like decades ago with small, self-supporting family farms.

Barbara and Jacques Shlumberger began The Melissa Garden as a honeybee and native pollinator garden sanctuary in Healdsburg. Four gardens planted with abundant flowers for nectar and pollen forage are situated in the center of their 40-acre ranch, lush with native vegetation and an orchard. The exuberance of flowers and explosive colors have attracted many people as well as pollinators. The Melissa Garden has become a garden of life to feed all visitors.

Michael Thiele decided it was time to start beekeeping when swarm after swarm arrived at his home in Green Gulch, inevitably following his nighttime dreams about bees. His approach to beekeeping centers on the idea that the hive is an entity, a being unto itself. He believes bees are an indicator species, reflecting the health of our environment as well as the interdependence and interconnectedness of all life on earth. He mainly uses the Golden Hive where the entire colony lives in one “room” with twenty tall frames that allow for the natural downward flow of comb and

Bee Arts *continued*

the development of a large brood nest.

These, and other interviews, provide an intimate look at the beekeepers' scientific, philosophical and spiritual approaches to this ancient art. The content and arrangement of the interviews are cleverly brought together to provide a comprehensive look at urban beekeeping. Each became a beekeeper for a different reason, but common threads run through their stories-- fascination with the mystery and intelligence of honeybees, an intimation that they are a manifestation of some grand intelligence, and a deep desire to help them on what has become a rugged journey to survive.

Ending chapters include "Concentrated Goodness," which explores the health benefits of honey, and "Garden Notes" which offers ways to create a honeybee friendly garden, complete with suggestions of plants to strengthen the honeybee's immune system. At the beginning of each chapter is a watercolor painted by the author's sister. Beautiful and illusive, each captures an aspect of the life of the honeybee.

Books can be ordered through www.BackyardBeekeepersBayArea.com



DON'T MISS OUT!

**Walter T. Kelley Company
is looking for Resale Partners!**

Ask yourself these questions:

*Is your local beekeeping community
strong and active?*

Do you teach beekeeping classes?

*Would you like to run a business that
aligns with your passion?*

**If you answered YES, we may
have an opportunity for you!**



Contact Us Today

Email: jennifer@kelleybees.com

Or Call: 800-233-2899 ex. 236

Beekeeping 'Round the Globe

Ethiopia, Part I

Yewalashet Yigezu lives in Anfillo, a coffee growing and evergreen region in Western Ethiopia. She is a coffee grower and trader. But when the coffee season is over, she purchases honey from beekeepers burning beehives. The honeycombs are cut and honey is extracted. In this long-existing traditional practice, the home of the bees along with possible future harvests gets destroyed.

As she always does in off seasons for coffee, Yewalashet comes to the capital city Addis Ababa where she learns about a call for application for start-up businesses in beekeeping and bee products' processing.

Precise Consult International through the USAID cooperative agreement Ethiopia Sustainable Agribusiness Incubator (ESAI) project posted this call and Yewalashet is one of the first comer applicants.

With the current obsession with organic and natural honey and in a country with minimal chemical usage, surely there must be numerous organic honey suppliers, right? That's what Yewalashet thought. But she was wrong as she saw the deep dive bee products' value chain study from the ESAI project. At the face of increasing demand for natural and organic honey in the world market, Yewalashet realized that her fellow beekeepers were destroying bee colonies, getting minimal output and supplying lower quality product for low-end markets at trivial prices. She became inspired to fill this gap.

Coming across the study at ESAI program was a milestone event in my business experience' she said, as she became inspired to upgrade beekeeping practices of her fellow beekeepers and coffee growers.

This inspiration gave birth to "Babichi Agroforestry PLC," a company established with a vision of upgrading beekeeping activities in Western Ethiopia, encouraging beekeepers to get organized, collecting crude honey in bulk from producer groups, purifying honey and beeswax and marketing to both export and local high-end markets.

With the technical support of Precise Consult International through the ESAI program, Babichi became registered and legally established. The



Yewalashet Yigezu, Ethiopian honeybee entrepreneur.

'Round *continued*

company signed memorandum of understanding to work with 670 beekeepers in Lalo Asabe, 439 beekeepers in Anfillo and 130 beekeepers in Gidami woredas. In addition, Babichi also made agreements with livestock development agencies in the respective areas to assist with the training of beekeepers and with the crude honey purchase arrangements.



Traditional beekeeping in Western Ethiopia.

The company rented a processing and packaging facility in the city of Nekemte, Wollega Zone on a 10 years lease basis. Necessary renovations and constructions were made to fit the facility with the standard requirement for a bee products' processing unit. Processing machinery has also been ordered from a local technologist who imports and assembles equipment.

Following the establishment and strategic linkage creation, Babichi secured a 447, 665.00 ETB grant fund from SNV Ethiopia-ASPIRE project for the training of beekeepers on improved way of beekeeping. In addition, using loan guarantee facility of this project Babichi also secured 3.35 million ETB input loan for the provision of modern production equipment to beekeepers on credit basis. Currently, the company is also processing for a working capital loan by providing assets from the sister coffee business as collateral.

Yewalashet's Babichi, which was just an idea, has now championed the very first honey processing enterprise in Wollega zone of Western Ethiopia. The company is preparing to participate at international market trade fairs; Gulf food in Dubai and Biofac in Germany. It aims to secure export market contracts through these participations and hence, realize high-end market sales.

Contact details:

Yewalashet Yigezu

+251-911-342548

babich.agroindustry@gmail.com

Nekemte, Wollega

Western Ethiopia



Bee Thinking About Who Controls Our Food?

by Nick Dearden, reprinted from www.Grain.org

Sympathy with organic food production is at an all-time high. Perhaps 'It's a nice idea, when you can afford it' sums up the approach of many people. But extending these principles of production to the whole food system? It just doesn't seem practical. There are an awful lot of people to feed in the world and, if you're hungry, you don't care much about the niceties of how the food was produced. A new report from Global Justice Now, *From The Roots Up*, shows that not only can small-scale organically produced food feed the world, but it can do so better than intensive, corporate-controlled agriculture. As a matter of fact, it already is feeding millions of people.

In Tigray, Ethiopia, farmers have seen grain yields double, with increased biodiversity and fertility, not to mention less debt. In Senegal, agroecological pest management techniques have allowed farmers to produce 25 per cent more rice than conventional farmers. In southern Africa, more than 50,000 farmers practising agroecology have increased maize yields by 3-4 metric tons per hectare. But what we're talking about isn't a set of farming techniques. We're talking about who controls our food supply and how that power is used.

How we produce food is a deeply political issue that affects the lives and livelihoods of billions of people. For in our global economy, it is not the amount of food produced which dictates whether people eat or starve. If it was, we would not see the inhumane but common spectacle of people malnourished while surrounded by food. Rather, it is the increasing grip which big business exerts over our food system, in accordance with a near religious faith in the power of the market.

So agroecology does not simply say 'we can grow more'. It says, we can give people control over their food. It goes beyond a simple notion of 'food security' because, as writer Raj Patel points out, 'it's possible to be food secure in prison'. By shifting the way food systems are controlled, agroecology can play a part in challenging the patriarchal forms of organization that exist in farming.

Agroecology poses a challenge to the dogma of the free market, in whose name so many millions have starved over two centuries. It posits a system of production and distribution which treats people as deserving of control over their lives, and nature as deserving of our respect. It says that if we want a just and sustainable food system, we need a paradigm shift in how food is produced and distributed.

In Africa, an all-out offensive is taking place against smallholder farming. Under the guise of a 'new green revolution', food is being removed from the control of those who farm it, and land from those who till it. There's a good reason: while 75 per cent of all seeds planted across the world are owned by 1 of 10 companies, in Africa 80 per cent of all seeds still come from systems managed by farmers. That's a lot to play for.

Nick Dearden is Director of Global Justice Now (formerly World Development Movement) and former director of Jubilee Debt Campaign. Find out more about Global Justice Now's Food Campaign: <http://www.globaljustice.org.uk/campaigns/food>



Pollination Center at the Robert Mondavi Institute, UC Davis; Emily Brown, owner of AZ Queen Bee and winner of a 2014 Good Food Award in Honey; Kim Flottum, Editor of Bee Culture Magazine; Marina Marchese, founder of the American Honey Tasting Society and co-author (with Kim) of *The Honey Connoisseur* and Mea McNeil, writer, beekeeper and organic farmer.

There are over 300 unique types of honey in the U.S. The Good Food Awards will showcase honeys most distinctive in clarity and depth of flavor, produced by beekeepers practicing good animal husbandry and social responsibility — from rooftop urban hives to busy bees pollinating organic orchards and meadows filled with wildflowers. Awards will be given out in Liquid or Naturally Crystallized Honey, Creamed Honey, Comb, and Infused Honey subcategories.

In order to be eligible for a Good Food Award, honey entries must meet the following criteria:

All honey must be the bona fide produce of the entrant's own bees.

Harvested between August 2014 – August 2015.

Extracted with minimal heat (100°) and after extraction, not exposed to heat greater than 120°.

Strained and/or filtered to leave in pollen.

If made with inclusions (such as fruit, alcohol and herbs):

That grow domestically, inclusions are locally sourced wherever possible; traceable; and grown without synthetic herbicides, pesticides, fungicides or fertilizers.

That are not grown domestically on a commercial scale; they are farm-direct, certified organic, or Fair Trade certified.

Produced in the USA.

Good Food Awards *continued*

By beekeepers who owned and/or managed the bees locally and extracted the honey, and:

Practice sustainable animal husbandry, including:

Not regularly relocating the hives major distances for pollination services.

Management of hives using minimal chemical interventions (e.g. miticides, antibiotics, etc), and following prescribed application guidelines.

Feeding balanced nutrition when needed, with no high fructose corn syrup.

Follow the suggested guidelines set by the Bee Informed Partnership

Practice social responsibility, including:

Engaging the community in education.

If staff is employed in tending the hives and harvesting the honey, they are treated respectfully and given fair compensation.

Additionally, honey entries must fit within one of the following subcategories:

Liquid

Crystallized

Comb

Infused



KelleyBees.com
SHOP ONLINE

LIKE US AT
**Kelley
Beekeeping**



WATCH
**YouTube.com/
KelleyBees**

JOIN XERCES SOCIETY AT EVENTS THROUGHOUT THE U.S. THIS SUMMER

The Xerces Society holds events in all 50 states and below is a list of upcoming events that we will be participating in. Many events require registration and some require a fee, so please check out the event details and reserve a spot soon if you are interested in participating. Please note that some events are not directly organized by Xerces, so registration and event questions may be handled by the hosting organization. Visit www.xerces.org.

NORTHEAST

Learn How to Attract Native Pollinators to
Fields, Farms, and Orchards
Corning, NY - Big Flats Plant Material Center
USDA Natural Resources Conservation Service
Thursday, August 27, 2015, 9:00 AM - 4:00 PM

MID-ATLANTIC

Save Our Monarchs
Hockessin, DE - Mt. Cuba Center
Sunday, July 12, 2015, 12:30 PM - 3:30 PM

Migratory Dragonfly Short Course
Alexandria, VA - Huntley Meadows Park
Saturday, August 22, 2015, 9:00 AM - 3:30 PM

SOUTHEAST

Native Meadow Tour:
Buck Creek Serpentine Barrens
Cullowhee, NC - Cullowhee Native Plant
Conference, Western Carolina University
Wednesday, July 15, 2015, 1:00 PM - 5:00 PM

Common Native Bees Slideshow & Garden Foray
Chapel Hill, NC - NC Botanical Garden
Sunday, July 26, 2015, 2:30 PM - 4:30 PM
Register at ncbgregistrar@unc.edu or
919-843-8524. Fee: \$15 (\$10 for NCBG members).

Enhancing Diversity to Support Pollinators:
Focus on Bees
Jamestown, NC - Griffin Recreation Center
Tuesday, September 15, 2015, 7:00 PM
Register at sedgefieldgardenclub@gmail.com
or 336-420-5926.

SOUTH CENTRAL

Official Summer Butterfly Count
Fort Worth, TX - Fort Worth Nature Center
Saturday, July 11, 2015, 7:30 AM - 2:00 PM CST
Please call 817-392-7410 with event questions

GREAT LAKES

Bumble Bee Survey at Pilot Knob Hill
Mendota Heights, MN - Pilot Knob Hill
Friday, July 24, 2015

Conservation Biological Control Short Course
Farmington, MN - NRCS Farmington Field Office
Tuesday, July 28th, 2015, 9:00 AM - 4:00 PM

Pollinator Party: A Celebration of Bees
Minneapolis, MN - Lyndale Park Gardens
Thursday, July 30, 2015, 5:00 PM - 8:00 PM

Bumble Bees of Minnesota
Brainerd, MN - Northland Arboretum
Sunday, August 9, 2015, 11:00 AM - 5:00 PM

PACIFIC NORTHWEST

Mussel Re-colonization Monitoring
Portland, OR - Westmoreland Park
Friday, July 10, 2015, 9:00 AM - 3:00 PM

Mussel Survivorship Monitoring
Portland, OR - Westmoreland's Union Manor
Monday, July 13, 2015, 9:00 AM - 3:00 PM

Pollinator Passion Weekend
Everett, WA - WSU Snohomish County Extension
Friday, July 24, 2015, 7:00 PM - 9:30 PM

Macroinvertebrate Training and Monitoring
Johnson Creek Watershed Council
Part 1: Thursday, August 20, 2015, 6:00 PM - 9:00 PM
Milwaukie, OR
Part 2: Sunday, August 23, 9:00 AM - 3:00 PM
Westmoreland Park - Portland, OR

I'll bee in...



MICHIGAN
July 9-11, 2015

Wish you were here
at the Heartland Apicultural Society!

www.heartlandbees.org

14TH ANNUAL H.A.S. CONFERENCE

featuring sessions with:

Dennis vanEngelsdorp, Sue Cobey, Larry Connor, Joe Traynor, Clarence Collison
Kim Flottum, Renata Borba, Roger Hoopingarner, Ken Schramm, Meghan Milbrath

conference
sponsored
by:

Bee Culture

MANN LAKE
WE KNOW BEES
AN AMERICAN COMPANY

WICWAS PRESS

SEMBA

OLIVE BRANCH
PRODUCTIONS

your name here



beg. to adv. workshops,
building nucs, splits,
queen raising,
drone catching,
new propolis discoveries
honey tasting:
bring 3 jars to swap!

CHILDREN'S PROGRAMMING :
candle-making, murals, seed bombs

REGISTER NOW!

www.heartlandbees.org

EAS 2015 is coming to Canada!

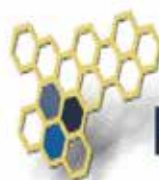
University of Guelph, Guelph, Ontario

August 10-14, 2015



EAS Ontario 2015
CANADA

Yours to Discover



EAS
Eastern Apicultural Society

Hosted by:



**ONTARIO BEEKEEPERS'
ASSOCIATION**

Speakers

Mark Winston, Robert E. Page Jr., Dewey Caron, Phil Craft, Robert Currie, Keith DelaPlane, Ernesto Guzman, Pierre Giovenazzo, Tammy Horn, Zachary Huang, Greg Hunt, Doug McRory, Heather Mattila, Medhat Nasr, Gard Otis, Steve Pernal, Nigel Raine and many more!

Workshops

Queen rearing, Integrated Pest Management, mead and beer making, how to win at honey competitions, beginner, intermediate and advanced beekeeping

Technical Tour

Full day bus tour featuring Niagara Butterfly Conservatory, Rosewood Estates winery and meadery, two of Ontario's largest commercial apiaries and a BBQ with queen auction and live entertainment

Register at www.easternapiculture.org

Mail in registration is now open, online registration will open early April



Hey, do you want learn how to heal using products from our hive?

Please join us on **Saturday & Sunday, September 12 & 13, 2015, for the 2015 Fall Apitherapy Course** in the Spring Creek Community Center's Old Rock School Building located in a small pristine community in North Carolina Appalachian Mountains near the Appalachian Trail.

Through classroom lectures and practicums using the products from the honeybee hive you will learn:

- ◆ how to use honey with herbs for more powerful healing
- ◆ the secret to prevent oil and water from separating in your lotion formulas
- ◆ how to make propolis and pollen tinctures and how to use them
- ◆ how to make suppositories and boluses with beeswax, essential oils, and herbs
- ◆ the formula using 2 ingredients from the hive that is comparable to royal jelly
- ◆ how to make your own beebread
- ◆ bee venom therapy using micro and full stings
- ◆ how to create your own n-chromosome royal jelly
- ◆ how to sustainably harvest the beehive products.

The 2-day course includes a colored 160 + page binder and 2 catered lunches. Dinner Saturday night is \$20. Entertainment by storyteller/musicians will follow the dinner and will be free for class registrants.

For those who wish to understand no-treatment beekeeping to help your bees survive, even in farming communities where there are Roundup and other chemicals sprayed, there will be a 3-hour class on Friday afternoon, September 11, 1 PM to 4 PM. in our community center. There is an additional fee o \$20 for this class.

To learn more about the course, taxi from and to airports, places to stay in our beautiful mountains, and to register go to www.BEeHealing.buzz.

All profits go to the [Center](#) for Honeybee Research, a non-profit



Healthy Bee • Bee Healthy



Boulder, CO
2015 CONFERENCE



WESTERN APICULTURAL SOCIETY - Colorado October 1-3, 2015: Putting the B in Boulder

A save-the-date notice for the 2015 Bee Healthy, Healthy Bee conference, put on by the Colorado State Beekeeping Association on behalf of the Western Apicultural Society

<https://www.powtoon.com/show/dfCzy9P2iI7/save-the-date-were-puttin-the-bee-in-boulder/#/>



UPCOMING EVENTS

July 2015

Michigan: 14th Annual Heartland Apicultural Society featuring Dennis VanEnglesdorp, Sue Cobey, Joe Traynor, Roger Hoopingarner, Kim Flottum, Larry Connor, Ken Schramm, Renata Borba, Meghan Milbrath

July 9-11, 2015

Albion College, Albion, Michigan
www.heartlandbees.org

Pennsylvania: Introductory Beekeeping with Dr. Vincent Aloyo, Ph.D.

July 10-12, 2015

Delaware Valley College
Feldman Science Center, Room 122
<http://www.delval.edu/pdf/2015-02-19-noncredit-registration-editable-form.pdf>

New Mexico: In Her Majesty's Chambers-Intro to Queen Breeding & Rearing with Melanie Kirby & Mark Spitzig of Zia Queenbees Farm & Field Institute
July 11-12, 2015

Zia Queenbees, Truchas, NM

Email: ziaqueenbees@hotmail.com

Tel: 505.929.8080

<http://www.smilebox.com/playBlog/4e4449324d4445784e7a493d0d0a&blogview=true>

Florida: 1st Ever Bee Research Symposium

July 15 - 16, 2015

Gainesville, Florida

Contact: bsimmons711@ufl.edu

New Hampshire: Beekeepers Workshop with Charles Andros, former NH/VT Apiary Inspector

July 18, 2015; 1-4pm

18 MacLean Road

Alstead, NH 03602

Email: lindenap@gmail.com

Tel: 603-756-9056

California: LA Beekeeping Class 101

July 19, 2015

<http://www.losangelescountybeekeepers.com/beekeeping-classes-losangeles/>

South Carolina: SCBA Summer Conference

July 23-25, 2015

www.scstatebeekeepers.org

August 2015

MI: 4th Annual Michigan Honey Festival

August 1, 2015; 9am-5pm

Harvey Kern Pavilion, Frankenmuth, MI

www.michiganhoneyfestival.com

NY: How Are my Bees? Understanding your Bees Midsummer Needs with Bill Day

August 1, 2015

http://www.pfeiffercenter.org/workshops_and_events/register.aspx

CT: Beekeeping Workshops - CT Beekeepers Association

August 15, 2015

Massaro Farm, 41 Forad Rd

Woodbridge, CT

<https://www.eventbrite.com/e/beekeeping-2015-part-iv-fall-hive-prep-tickets-15518688816>

California: L.A. Beekeeping Class 101

August 16, 2015

<http://www.losangelescountybeekeepers.com/>

<http://www.losangelescountybeekeepers.com/beekeeping-classes-losangeles/>

USA: National Honeybee Day August 18, 2015

Illinois: Beekeeping Courses at Long Lane Honey Bee Farms taught by certified master Beekeeper David Burns

August 22, 2015

14556 N 1020 E, Fairmount IL

Tel: 217-427-2678

www.honeybeesonline.com

New York: Long Island Beekeepers Club with Mike Johnston

August 23

www.longislandbeekeepers.org

Illinois: Beekeeping Courses at Long Lane Honey Bee Farms taught by certified master Beekeeper David Burns

August 29, 2015

14556 N 1020 E, Fairmount IL

Tel: 217-427-2678

www.honeybeesonline.com



We'd love to share news of your upcoming events. Please send the event name, date, website and/or contact information by the 10th of each month for inclusion in the following month's issue. Editor@KelleyBees.com