



Kelley Beekeeping

SERVING THE BEEKEEPER SINCE 1924

ISSUE 66: FEBRUARY 2016



LOVE YOUR BEES!

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From the Queen's Court

by Melanie Kirby

This month is all about cherishing loved ones. And indeed, beekeepers love their bees, otherwise how would we put up with the occasional stings and face buzzes.

This issue of the newsletter is a big one. Stuffed with tender loving care with interesting food for thought. Winter gives me a little more time to reflect on the seasons past and to strategize for this coming bee season. I'm still buried under snow up in the mountains getting some last ski time in.



Migratory stewards are already heading west to the almighty almond bloom in California. This month's cover photo is one I've been saving for a number years. I took it while visiting beekeepers in the central valley almond orchards back in 2010. And I've been going every spring since to conduct breeding projects and classes (info in Upcoming Events towards the end of this newsletter).

It's always nice to mingle with other bee folks. We share more than camaraderie as kindred spirits to the hives. We encourage each other and discuss concerns from pesticides to drought. And while we cannot control many facets, such as the weather, we can remember to support each other through thick and thin, like family.

Cupid's bow takes careful aim as the bee season commences inflicting newbie beekeepers with head over heels devotion. Those with experience can help to coach the newlyweds and mentor for the long haul. It is mentorship that can really nurture the industry as we begin to face the call to the new generations to carry the baton into the future.

I recently listened in on an American Beekeeping Federation webinar featuring Sarah Red-Laid, The Bee Girl and Zac Browning discussing the NexGen of beekeepers. I was very glad to hear that the concerns of newer professionals are being listened to. I am eager to assist



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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*

and hope that the next 20 years of my beekeeping career I can help nurture the future farmers and beekeepers who will be feeding us, our children and grandchildren.

The push for more sustainable ag and land stewardship practices is on the rise. Beekeepers are gathering and discussing how can we help change the systematic disregard for our land, water and air resources. These resources are not infinite. They have limits. And we must continue to work together to help care and encourage healthy landscapes for our bees and for our families.

Such is the profile on Dr. Jonathan Lundgren in Meet the Beekeeper in this issue. We reprinted an article on Dr. Lundgren a few months ago on the suppression of his pesticide research. He is now aiming higher than ever and launching his own research farm. His effort is a worthy one and with community support- we as a community and industry can help to redirect the ship and make a stand for truthful research and to promote biodiverse habitats.

Love your Bees! And they just may love you back.
And if you truly love them, you will set them free....

Free of contaminations and compromised practices.
Free of prejudice and burden.
Free to live in healthy and diverse ecosystems.

Free at last...free at last....

Bee-Kind and Compassionate!
Melanie Kirby



Cherish your loved ones.

Melanie Kirby has been keeping bees professionally for 20 years, first starting as a US Peace Corps volunteer in South America. She has learned from bees and their keepers in North America, South America, the Pacific Islands, the Caribbean and Europe. She specializes in survivor stock queen breeding and consilience based research in the southern Rocky Mountains. She can be reached at Editor@KelleyBees.com



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If you have a question you would like to share, email it to Editor@KelleyBees.com

A•Bee•Cs

Beginning Beekeeping

by Liz Walsh

I live in a neighborhood where they spray for mosquitoes twice a week in the summer. My bee hives would be located 155 feet from the street where the spray truck drives.

CAN I HAVE A SUCCESSFUL HIVE OR HIVES?

Stuart, 214 area code



Hello Stuart,

That's a good question; I contacted a colleague here at Texas A&M University's Hamer Mosquito Lab to find out more about what active ingredients are in most mosquito sprays. My friend referred me to two excellent sources, the EPA website (<http://www.epa.gov/mosquitocontrol/controlling-adult-mosquitoes>) and the FL Mosquito Control website (<http://mosquito.ifas.ufl.edu/Adulticiding.htm>) to find out more. It looks like the main chemical classes of insecticides used for mosquito control are organophosphates and pyrethroids. These were the two classes beekeepers used to originally control varroa mites with, so that in itself didn't seem like an automatic "no" to me. However, then I took a closer look at the "LD50's" of the chemicals commonly used.

LD50 stands for the "lethal dose of 50% of the test population" and it is a standard measurement for lethality of a substance. LD50 can be figured out for oral transmission of a substance or for topical transmission of a substance. For a mosquito spray, honey bees could be exposed topically if the spray hits them while flying or when they land on something that was sprayed, but they can also be exposed orally if forage material was sprayed. The LD50 for most of the common mosquitocides is very low for honey bees, to the tune of part of a single ug (microgram) in some cases. A ug is a very small amount; if you took a substance, divided it into a million parts, and then took one of those parts, then you would have a ug of that substance. As you can see from the FL mosquito control website—which has information fairly representative of the Southern United States mosquito control practices—the most toxic mosquitocide widely used (for honey bees) seems to be Pyrethrum and 22ng/bee is the LD50 for oral exposure of honey bees. Wow, that's pretty powerful stuff because a ng (nanogram) is a billionth of a gram of a substance.

Mosquitocides are not composed purely of these dangerous pesticides, but these chemicals are the killing ingredients of a mosquito spray. To be fair, 155 feet is much better than it could be, but a truck can spray pretty far. So now I guess the answer to your question comes down to how you would define success. I wouldn't keep bees in that area, nor would I recommend that you keep bees in that area. In addition to the death of your foraging population when the trucks go by, you also have to contend with the idea that perhaps a forager wouldn't immediately die. Then, it could bring

FAQs *continued*

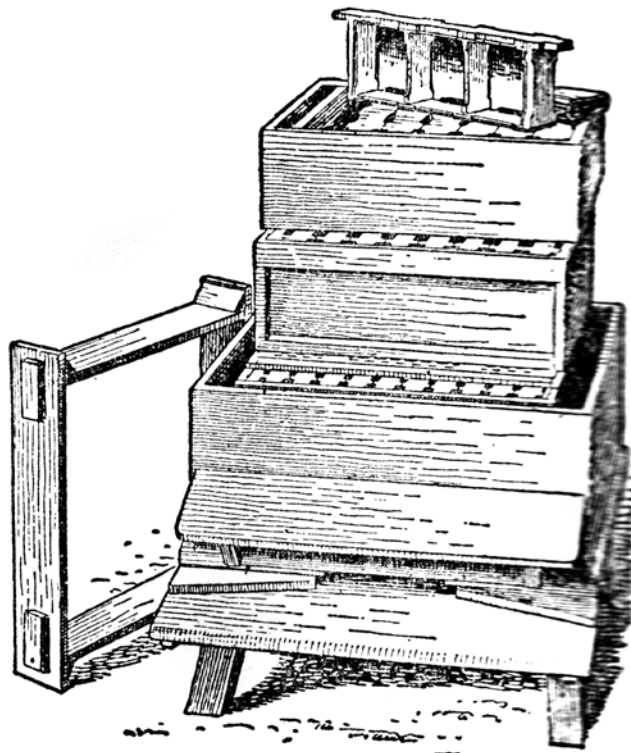
contamination back to the colony. Since you are dealing with a food product-- honey, I wouldn't even go near this area if I could avoid it. If this is the absolutely only area you can keep bees in and you insist on keeping bees, then please consider calling the mosquito control agency in your area (normally that is listed on the city or county website) and tell them your concerns while asking for their opinion.

Sorry to be the bearer bad news. I do feel honor bound to remind you of something, though: the mosquito sprays keep things like mosquito borne diseases low. If you haven't seen or heard news of the "new" Zika virus yet, then I would encourage you to look it up. Mosquitos can transmit some diseases that are very serious and it is the transmission of these diseases that the mosquitocides are designed to halt. I don't know if the sprays are a net negative or a net positive, but I do know that I don't want my children to be born with Zika virus or my grandmother to get West Nile Virus (or Chikungunya or Dengue), all of which have been found in U.S. patients and are spread by mosquitos. That said, I would like an environment where I can live AND keep bees.

Best, Liz

Acknowledgement: Karen Poh, a graduate student pursuing her PHD out of the Entomology Department at Texas A&M University found the resources (the FL mosquito control page and the EPA website) cited and provided helpful insight.

Liz Walsh is a graduate student at the Rangel Honey Bee Lab, Department of Entomology, Texas A&M University. She can be reached at walsh@tamu.edu



Just the FAQs

Questions & Answers

by Dennis Brown



Hi Dennis,

I have all my boxes assembled and I'm now putting together frames. I know you recommend wiring the honey super frames, but what about the brood box frames? I would assume I don't need to wire these since I won't be extracting honey from them. What do you think? When you wire a frame, how many wires do you use? Also, when you place the foundation in the frame do you recommend embedding the wire or just alternating the foundation through the wires? Also, what frame do you use?

Thanks in advance. Paula Lockwood

Hello Paula,

You should always wire every frame regardless of the frame size. This gives the frame good support. There are four holes pre-drilled on the side of each frame. You should secure a horizontal wire in the two middle holes of each frame. This will provide enough support for the foundation.

Because I use so many frames, I prefer to embed my wires with an electric embedder. It makes the job faster and easier. However, you can use a "Spur" to push the wires into the wax if you only have a few frames to do. You should place the wires on the same side of the foundation. Not "flip-flopped". Since 1964, I've only ever purchased the Kelley divided bottom frame and their hooked foundation. I've purchased hives from other beekeepers over the years that use other manufactured frames, but they warp and don't seem to be as strong as the Kelley frames. I typically have to change them out to the Kelley frames. The Kelley wax foundation appears to be thicker than the others. I never get any sagging with their foundation. I hope this helps.

Enjoy your bees!

Dennis Brown

Dennis Brown is the author of "Beekeeping: A Personal Journey" and "Beekeeping: Questions and Answers." Contact Dennis at www.lonestarfarms.net.



X•Y•Zs

Advanced Beekeeping

by **Phill Remick**

Dear Kelly Beekeeping editors,

I have discovered that something in the sugar being fed to bees is causing CCD. Of all the brands that I've tried, the only one found acceptable was Domino and I'm not sure if all Domino is OK or if things have changed and now none of them is OK.

WFS

Dear WFS,

I don't mean to harsh your sugar buzz, but, before you load up on carbs to placate those ravenous colonies, nucs or package bees, take a deep breath and read this headline:

Sugar beet industry converts to 100% GMO, disallows non-GMO option

"The US sugar beet industry coordinated an industry-wide conversion to genetically modified sugar beets, thus eliminating a non-GMO alternative for food manufacturers and consumers."

http://non-gmoreport.com/articles/jun08/sugar_beet_industry_converts_to_gmo.php

The above statement shows us that labels are valuable.

It's a time honored tradition, supplying honey bees with sugar in various forms to stimulate the queen and provide basic sustenance in early spring, or in times of dearth. Most beekeepers never give a second thought to the robotic quality to their actions; it's what we've always done, especially when there are no fresh ectar sources readily available. Now we need to consider what KIND of sugar we feed.

What to do?

Buying 'organic' sugar is a strong alternative, albeit an expensive option to avoid GMO-laced sugar products. Those who manage more than a couple of colonies of bees can relate to the math here as providing organic sugar can get costly. Your cost will depend on how much and how long one must feed their colonies.

I have discovered one brand of non-organic sugar, declaring its non-GMO stance, which is reassuring. C&H is the non-GMO product, which is owned by the above mentioned company in your inquiry. Sugar is produced primarily from sugarcane and now, Genetically Modified sugar beets.

Sugar in the Morning, Sugar in the Evening, Sugar at Supper Time

I note that the Credit Suisse Research Institute's 2013 study titled "Sugar: Consumption at a Crossroads", proclaims nearly 40 percent of United States healthcare disbursements are related to diseases pertaining to the overeating of sugar, which will increase when the only sugars available are Genetically Modified.



GMO sugar assuredly is not healthy for honey bee colonies either! Seriously consider organic or non GMO sugar feeding options for your best bee friends. It is literally a matter of a better quality of life or an early demise!

Finally, regarding your claim that, "The sugar being fed to bees is causing CCD." You'll have great difficulty proving that one since there are multiple factors involved in determining the reasons for Colony Collapse Disorder.

Let me know how it goes, I'll be glad to follow up.

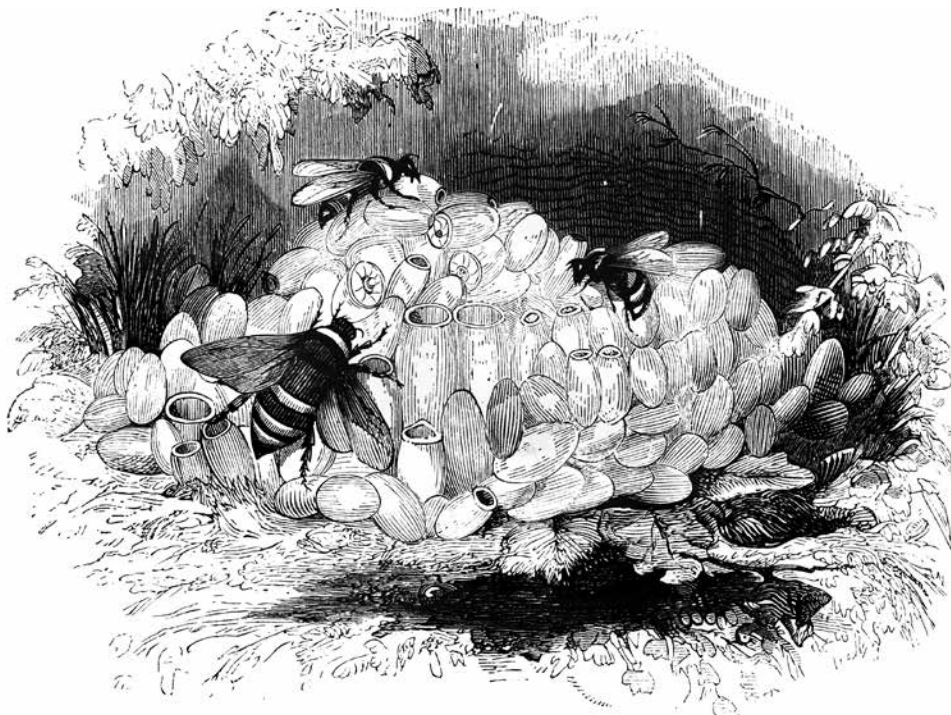
Ratio For Feeding Sugar Syrup:

In spring: 1:1 by weight, so 8 pounds of sugar to 1 gallon of warm water.

In fall: 2:1 by weight, so 16 pounds of sugar to 1 gallon of warm water.

**Thank you,
Phill Remick**

Phill Remick is a former commercial beekeeper and seasonal apiary inspector who teaches beekeeping, offers year round apiary consulting and sells supplies near Edgewood, NM. Contact: Phill@NewBeeRescue.com



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Bee Health

Bee Health App

by Dr. Medhat Nasr

The Bee Health app is based on current scientific knowledge to address honey bee diseases and pests. It is a handy resource to help beekeepers and other users to detect, diagnose, manage and treat honey bee diseases and pests. It includes pictures and treatment options which aid beekeepers in adopting appropriate pest management practices. Thus, beekeepers can improve bee health and enhance on-farm food safety and biosecurity practices in their operations.

Download the free Bee Health app from Alberta Agriculture and Forestry today.

<http://www.programs.alberta.ca/17713.aspx#ad-image-0>

Dear Apiculturists

Alberta Agriculture has developed an app for “Bee Health.” Phase I of the “Bee health” app is released. It focuses on bee diseases symptoms, diagnosis and treatment options. It is developed for iOS and Android platforms. It can be downloaded to iPhone, Samsung phone family and iPad. To download to iPad, you need to use the iPhone only option for downloading.

We are currently working on the second phase that will include diagnoses of diseases based on symptoms. It will also include an interactive feature to communicate with Alberta registered beekeepers. It will facilitate bee diseases diagnostics, and communication to provide recommendations on line. Pictures can be emailed to Alberta apiculture staff for assistance in diagnoses. Broadcasting warnings of pest outbreaks will also be included. All reports and findings will be recorded in the provincial bee pest surveillance database.

Please help yourself and download the app. To find the app, search App Store or Google Play store for “beehealth”.

Please share with the beekeeper’s community. Hey, it is free for all. If you have any comments please contact medhat.nasr@gov.ab.ca

Dr. Medhat Nasr, Provincial Apiculturist
Crop Research & Extension Division, Crop Diversification Centre North
17507 Fort Road, Edmonton, AB, Canada T5Y 6H3



Bee Science

The American Honeybee Germplasm Repository Program

by Melanie Kirby

At the 2016 American Honey Producers Association and American Beekeeping Federation respective conferences, introductory meetings were held for the initiation of the American Honeybee Germplasm Repository Program. Various researchers, bee geneticists, queen producers and USDA officials convened to discuss the initiation of the program and to begin a dialogue on the preservation of various subspecies strains of *Apis Mellifera* found in the United States. The program, initiated by Dr. Robert G. Danka- Research Entomologist for the USDA Honey Bee Breeding, Genetics and Physiology Laboratory of the USDA-ARS Baton Rouge, Louisiana and Dr. Harvey Blackburn of the National Center for Genetic Resources Preservation in Fort Collins, Colorado brought together stakeholders to discuss the importance and process of establishing a honeybee genetics germplasm program. The program would allow those involved in the American queen breeding, research, and production industries to deposit selected strains for preservation and future propagation.

The USDA Germplasm Center utilizes cryopreservation to retain and store genetic samples for breeding and distribution. Cryopreservation involves deep-freezing to better preserve genetic samples. In the case of honeybees, drone semen would be collected and frozen, depositing a historical genetic component “in stasis” with the ability to be reintroduced in present times and in the future. These semen samples can then be thawed and shared for utilization of instrumental insemination breeding programs in various areas of the country.

These initial meetings focused on the history of the USDA’s National Center for Genetic Resources Preservation as well as the available germplasm programs which include genetic samples of swine, cattle, turkeys, chickens and other livestock breeds. The inclusion of honeybee germplasms would allow the industry to better preserve healthy mite resistant stock lines among other sought-after characteristic traits. It will also promote collaborative participation and multidisciplinary projects among researchers, institutions and producers for lab and field applications.

Each collection of species is managed by a directorial committee composed of various stakeholders. The inaugural group of volunteer board members has not been selected as of this date; but once determined, will then be responsible for establishing and maintaining the program and composing protocol and policies for selection of subspecies and their crosses, sampling procedures, storage and distribution. The USDA National Center for Genetic Resources Preservation has committed to fund the American Honeybee Germplasm Program.

For additional information, visit: <http://agresearchmag.ars.usda.gov/2016/jan/bees/>

For questions on the USDA National Center for Genetic Resources Preservation, contact Harvey.Blackburn@ars.usda.gov

For questions and inquiries of interest on the American Honeybee Germplasm Repository Program, contact Dr. Bob Danka at Bob.Danka@ARS.USDA.GOV

Meet the Beekeeper

Dr. Jonathan Lundgren, Blue Dasher Farms

by Brett Adee

I believe that Dr Jonathan Lundgren can be a major catalysis for a change for the better so I'm sending you some ideas for a letter if you agree that we as a nation can do better.

"Change for the better is possible!"

A brilliant scientist Dr. Jonathan Lundgren chose to publish the discovery of his work (that relates to the health of our bees) and there have been repercussions.

Dr. Lundgren has chosen to start his own research farm. He needs our financial support!

What will this farm focus on?

Farming methods that use beneficial insects instead of insecticides.

A mite treatment that uses predators to eat and destroy our varroa mites non-chemically.

This may be our best opportunity to affect change in decades.

Why? Dr. Lundgren is nationally recognized as an excellent scientist, 2011 ARS outstanding Early Career Research Award (one per year nationally).

He is not the only scientist to have been pressured not to publish their discovery if it threatens vested interest (ag chemical companies).

Other scientists are watching to see if Dr Lundgren is supported by beekeepers and farmers.

If his farm is well funded, 2 or 3 times of what he is asking, then I believe they (other scientists) will come out and tell what has happened at USDA and EPA and at our land grant universities.

Why will farmers be receptive?

Because the prices they are receiving are half or less of what they were two years ago.

Most are trading dollars at best.

If we miss this opportunity and do not support Dr Lundgren above and beyond his humble ask, then we should not be surprised if other scientists do not publish what they discover and our situations and our bees do not improve.

Dr. Lundgren has risked his career and his family's well being to publish the truth of his discovery. Everyone needs to be involved, put off buying that new rifle this year and be part of the solution.

Meet the Beekeeper *continued*

Including a letter that I helped the AHPA with.

Dear Beekeepers & Friends of Bees & Beekeepers,

As all of you know, the last several years have been challenging for the bees and beekeepers. Pest, pesticides, pathogens and poor forage have taken their toll on the health of honey bees and the beekeeping industry. It has pushed normal annual beekeeper losses from 10 - 12% a few short years ago, to a current loss near 50 %. As a result, the bees have been in the news a lot the last few years and this has resulted in more researchers across the country taking a look at what is happening to the bees.

Dr. Jonathan Lundgren is one of the scientists looking into the challenges faced by the bees. Receiving the USDA's Herbert L. Rothbart Outstanding Early Career Research Scientist Award in 2011, this man is one of the nation's top scientists. He is committed to improving our agricultural systems and the food supply by using insects to better our farming systems. Dr. Lundgren's research shows that neonicotinoids are harming bees, monarch butterflies, and other wildlife; without providing any economic benefit to soybean farmers. Additional research has shown that RNAi, a new form of genetic pesticide, could potentially harm bees in unpredicted ways. And perhaps worst of all, Dr. Lundgren found that intensification of monoculture is at the root of the problem with our bees.

Based on his research and findings, Dr. Lundgren sounded the alarm that challenged the status quo. He published the discovery of his work without concern for the vested economic or political interest. If Dr. Lundgren had not discussed and published his findings, he would have had a much longer and more comfortable career within the USDA, all he had to do was stay quiet and put in his time. Instead, he told the truth about the obstacles beekeepers and farmers are facing. The truth that high input chemical farming systems are harming the bees and other beneficial insects, as well as harming the soil, and they weren't always helping farmers in the way they were being portrayed. For taking this stand and exposing the truth, the USDA has put up countless roadblocks in an attempt to diminish Dr. Lundgren's research, crush his spirit, and has made the lives of his family and his laboratory group living hell (see links below).

*Unfortunately Dr. Lundgren is not alone; other scientists whose research challenges the vested interest or political dynamic are routinely stifled at universities and stifled in federally funded research. (Some of our National Land Grant schools have presidents that sit on the Board of Directors of major chemical companies). Only a few other scientist and researchers have had the courage and integrity to risk career and economic well being to stand up for what is right. By taking this stand, Dr. Lundgren has risked everything to make the world better for bees, farmers, and the next generation. **We desperately need more scientists with this kind of integrity, and courage. We cannot let Dr. Lundgren fail at this point.** If he fails, it will send a message to other scientists that if they tell us the truth, then they are flushing their education and careers down the drain.*

Dr. Lundgren has decided to work harder than ever to help the beekeepers, farmers, and ranchers instead of giving up. He is starting an independent research, education, and demonstration initiative to help train the next generation of scientists and farmers in how to produce crops using ecological principles. Rather than taking a piecemeal approach to solving the bee problem, Dr. Lundgren is working to solve the root of the bee problem "we need to transform agriculture to make an environment where bees and farmers can thrive."

Meet the Beekeeper *continued*

This research laboratory and demonstration farm will be Blue Dasher Farm, and he is fundraising to get the facility up and off the ground.

**Blue Dasher Farm – www.indiegogo.com/projects/blue-dasher-farm
Contribute today or share with friends.**

This is an exciting opportunity for you to be a part of the solution! Join Dr. Lundgren, take a stand and donate today! Any amount is helpful, but your donation, support and participation allows Dr. Lundgren to add your name to the list of donors and supporters so that he can use this as leverage to do additional fund raising. Also, spread the word through newsletters, bee clubs, gardening groups, conservation societies, churches, schools... your friends and family on FaceBook. Get the word out anyway you can! The only way Blue Dasher Farm is going to be able to help us, is if we give him the chance by using our sphere of influence.

Time is of the essence here. It cannot wait; his fundraising campaign is taking place now and will be done in the next few weeks. Let's make it a success and send a message: We can have a better system, one where bees stay alive, farmer's expenses go down, their profits go up, and our environment and food is healthier.

Links for more about Dr. Lundgren's story:

www.indiegogo.com/projects/blue-dasher-farm

www.bluedasher.farm

www.honeycolony.com/article/heal-the-soil-to-solve-the-bee-problem/

www.mprnews.org/story/2015/12/23/usda-scientist-in-whistleblower-case-starts-research-initiative

www.washingtonpost.com/news/federal-eye/wp/2015/12/23/judge-green-lights-whistleblower-claim-against-usda-by-pesticide-researcher/

www.whitehouse.gov/the-press-office/2011/09/26/president-obama-honors-outstanding-early-career-scientists

www.ars.usda.gov/pandp/people/people.htm?personid=37024

For those who use USPS

Dr. Lundgren - Blue Dasher Farms - 2016 State St. - Brookings, SD 57006

I hope that you will support this idea and spread the word. Please feel free contact me if you have any questions, also please take time to look up the Pollinator Stewardship Council as it is the other side of the fight for a better system.

Thanks, Bret

Bee Thinking About International Year of Pulses 2016

The 68th UN General Assembly declared 2016 the International Year of Pulses (IYP) (A/RES/68/231)

The Food and Agriculture Organization of the United Nations (FAO) has been nominated to facilitate the implementation of the Year in collaboration with Governments, relevant organizations, non-governmental organizations and all other relevant stakeholders.

The IYP 2016 aims to heighten public awareness of the nutritional benefits of pulses as part of sustainable food production aimed towards food security and nutrition. The Year will create a unique opportunity to encourage connections throughout the food chain that would better utilize pulse-based proteins, further global production of pulses, better utilize crop rotations and address the challenges in the trade of pulses.



What are pulses and why are they important?

Pulses are annual leguminous crops yielding between one and 12 grains or seeds of variable size, shape and colour within a pod, used for both food and feed. The term “pulses” is limited to crops harvested solely for dry grain, thereby excluding crops harvested green for food, which are classified as vegetable crops, as well as those crops used mainly for oil extraction and leguminous crops that are used exclusively for sowing purposes (based on the definition of “pulses and derived products” of the Food and Agriculture Organization of the United Nations).

Pulse crops such as lentils, beans, peas and chickpeas are a critical part of the general food basket. Pulses are a vital source of plant-based proteins and amino acids for people around the globe and should be eaten as part of a healthy diet to address obesity, as well as to prevent and help manage chronic diseases such as diabetes, coronary conditions and cancer; they are also an important source of plant-based protein for animals.

In addition, pulses are leguminous plants that have nitrogen-fixing properties which can contribute to increasing soil fertility and have a positive impact on the environment.

The IYP website will be the main platform to share information and relevant resources with different partners. The current version will be updated soon, please come back for more information.

2016 National 4-H Beekeeping Essay Contest

Sponsored by: The Foundation for the Preservation of Honey Bees, Inc.

2016 Essay Topic: "Bees and Pollination. How Important is it?"

Beekeeping has had its five minutes of fame for the past five years. Now more than ever, people are asking "What will happen if the bees are gone?" Your paper should research and help answer this question.

Survey your community to see what is being done. Include your state in your survey to see if there are any programs they are using for pollination or any other program that could aid the honey bee. The scope of the research is an essential judging criterion, accounting for 40% of your score. The number of sources consulted, the authority of the sources, and the variety of the sources are all evaluated. Personal interviews with beekeepers and others familiar with the subject are valued sources of information and should be documented. Sources, which are not cited in the endnotes, should be listed in a "Resources" or "Bibliography" list.

Note that "honey bee" is properly spelled as two words, even though many otherwise authoritative references spell it as one word.

Rules Overview: (failure to meet any one of the requirements will result in a disqualification)

- Students interested in writing an essay, should contact their local 4-H offices for contest details. The state selection must be done through the 4-H system.
- Preparation for National Judging: Typewritten or computer-generated double-spaced, 12pt. Times or similar type style, on one side of white paper following standard manuscript format.
- Must submit an essay, 750 to 1000 words, on the essay topic
- Essays will be judged on (a) scope of research- 40%; (b) accuracy- 30%; (c) creativity- 10%; (d) conciseness- 10%; and (e) logical development of the topic- 10%
- All factual statements must be referenced with bibliographical-style endnotes.
- A brief biographical sketch of the essayist, including birthdate, gender, complete mailing address, e-mail address, and telephone number, must accompany the essay.
- Each state may submit ONE entry only.
- Deadline for National submission is: March 4, 2016.
- Final judging and selection of the National Winner will be made by the Foundation's Essay Committee, whose decision is final.
- National winners will be announced by the week of May 2nd, 2016.
- All National entries become the property of the Foundation and may be published or used as it sees fit. No essays will be returned.
- Send the winning state entries with the subject title: "4-H State Winning Entry from XXX State" to : reginarobuck@abfnet.org.

Bee Thinking About *continued*

Eligibility:

Contest is open to active 4-H Club members only. 4-H'ers who have previously placed first, second, or third at the National level are NOT eligible; but other state winners are eligible to re-enter. Students must write on the designated subject only. There will be NO exceptions.

Awards:

First Prize: \$750.00

Second Prize: \$500.00

Third Prize: \$250.00

The National winners' essays will appear in an issue of the American Beekeeping Federation's Newsletter.

*Each State Winner, including the National winners, receives an appropriate book about honey bees, beekeeping, or honey.

If you have any questions, please contact Regina K. Robuck, Executive Director, Foundation for the Preservation of Honey Bees at 404.760.2887 or reginarobuck@abfnet.org.



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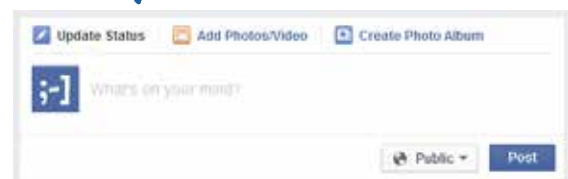
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3



BeeSpeakSTL.com

... a St. Louis Regional Beekeeping Speaker Series

Dr. Tom Seeley

Author of *Honeybee Democracy*



Spend an afternoon with our country's most respected honey bee behaviorist, researcher and author

Saturday, February 27th
Missouri Botanical Garden's Shoenberg Theater
BUY TICKETS

Dr. Seeley will be speaking on a number of fascinating topics including...

The bee colony as a honey factory where Prof. Seeley will share his observations about how honey bee colonies operate to produce honey efficiently despite tremendous day-to-day swings in the supply of nectar, the raw material for making honey.

He will share new information about survivor populations of European honey bees living in the wild in New York State and where their current genetics reveals what happened to this population.

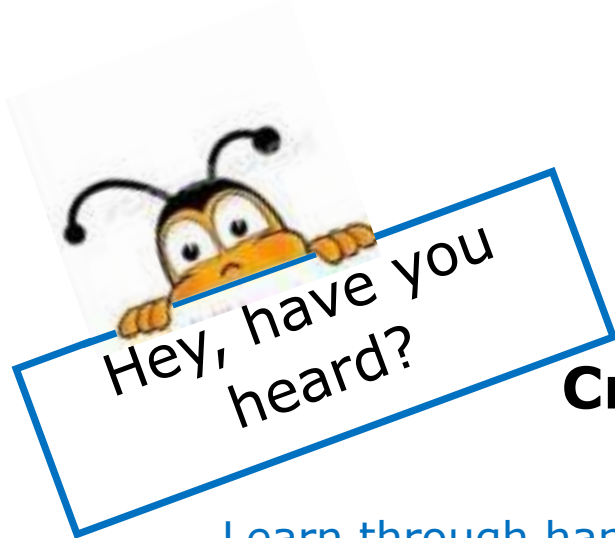
And more!

Get details and reserve your seat to this afternoon event
www. beespeakSTL.com or by calling 314-471-5122



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The Spring 2016 Apitherapy Course is coming to Spring Creek, NC.

Learn through hands-on practicums what you can do with beeswax, propolis, royal jelly, larvae, honey, pollen, and bee bread products for your health and beauty - inside and out.

WHAT: 2016 Spring Apitherapy Course

WHERE: Spring Creek Community Center

WHEN: March 19 & 20, 2016

COST: \$295 includes your text book.

~

**For registration and more information go to
www.BEeHealing.Buzz**

NOTE: Registration for the Course ends Tuesday, March 1st.

NOTE: This class is limited to 20 students.

No-treatment beekeeping will be held for a full day on March 18, 2016. Go to www.BEeHealing.Buzz for more details.

Cost is \$95 and there are no limits to the number of students.



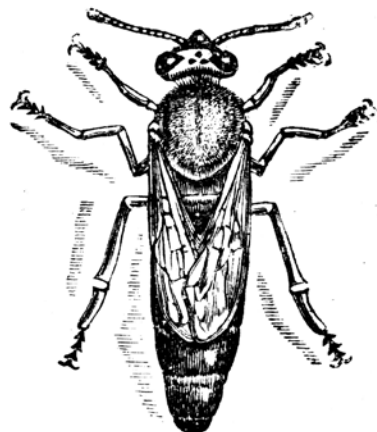
3rd Annual *In Her Majesty's Chambers- Intro to Queen Rearing Short Course* with visiting instructors Melanie Kirby and Mark Spitzig, professional apiculturists and survivor stock queenbreeders of Zia Queenbees Farm & Field Institute and Aiden Wing of Wings of Nature Apiaries. Day long class and field practicum for backyard to small and mid scale stewards. Hosted by Wings of Nature Apiaries- located near the Portolla Redwoods in the hills above Palo Alto, less than an hour south of San Francisco. **Class and field practicum- March 19, 2016.** Syllabus includes: queen rearing cycle calendar overview, selection and establishment of breeders, cell-builders, creating and maintaining mating nuclei, mating zones, drone production, the art of grafting, cocoon handling and incubation, catching, marking, banking and shipping queens. Day long course includes pocket field manual, grafting tool, JzBz queen cell cups and queen cages, and live cells to take home. Graduation bee beards offered. Visit www.wingsofnaturebees.com or www.ziaqueenbees.com/zia.

Intro to Apiculture Level I and II classes also offered.

Additional summer courses offered at Zia Queenbees Farm & Field Institute in the southern Rocky Mountains of northern New Mexico. Visit www.ziaqueenbees.com/zia for details.



Worker.



Queen.



Drone.

Where are Your Gaps?

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Sourwood	30' Zone 5-9	Blooms Jul-Aug
American Linden	80' Zone 3-8	Blooms Late June
Little Leaf Linden	80' Zone 3-7	Blooms Early June
Black Locust	50' Zone 3-8	Blooms In May
Seven Sons Tree	25' Zone 5-9	Blooms in Aug-Sept
Korean Bee Bee Tree	30" Zone 5-8	Blooms July-Aug
Northern Catalpa	90' Zone 4-8	Blooms In Late June
Southern Catalpa	50' Zone 4-8	Blooms In Early June
Tulip Poplar	90' Zone 4-9	Blooms In May
Tree Lilac	25' Zone 3-7	Blooms In May-June
Glossy Abelia	06' Zone 5-9	Blooms In May-Frost
Summersweet	3' to 6' Zone 3-9	Blooms in July- Aug
Japanese Pagoda Tree	60' Zone 4-8	Blooms July-Aug
Golden Rain Tree	30' Zone 5-9	Blooms June-July
Black Gum	40' to 60' Zone 4-8	Blooms May-June

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Diversified Pollinators

The Orchard Bee Association

The Orchard Bee Association (OBA) is an international organization dedicated to enhancing the use of native and naturalized bees in orchards.

In 2014, the OBA became an official 501(c)(3). Through membership dues and donations, the OBA improves food security locally and abroad.

The purpose of the Orchard Bee Association is to accelerate the production and use of orchard mason bees in various spring crops and orchards.

The OBA meets annually. Members fly in from around the world to discuss breakthroughs in mason bee development and pollination. Whether you're a grower, scientist, backyard gardener, beekeeper, student or entrepreneur, you're encouraged to become a member. In 2014, the OBA became an official 501(c)(3). Through membership dues and donations, the OBA improves food security locally and abroad.

Traditionally, honey bees have been our primary orchard insect pollinators. Solitary bees, or non-social bees, have been largely ignored. The following solitary bees are proven orchard pollinators and are the current focus of the Orchard Bee Association:

- *Osmia lignaria* (also known as the Blue Orchard Bee)
- *Osmia cornifrons*
- *Osmia cornuta*
- *Osmia rufa*

For more info on the OBA, their annual conference and how to become a member, visit: www.orchardbee.org



Orchard bee emerging.

Sweet As Honey

Chocolate honey truffles for Valentine's Day

by Beatrix Royale

Quick notes

Base flavouring can be of any type – choose your flavours from dark rum, cognac, or even beer.



If you want to stay away from rum infused truffles, then you can add simple pure vanilla extract or fruit liqueurs – like strawberry, orange, raspberry or else lavender oils, orange oils, kahlua etc.

Water is bad for chocolates, so in the entire process of making chocolate truffles, do not let a single drop of water sneaks into the chocolate ganache.

Preparation time: 30 minute(s)

Diet type: Vegetarian

Culinary tradition: French

Ingredients

For Ganache

- 4 oz – Dark chocolate
- 4 oz – Heavy cream
- 1 tbsp – butter (unsalted)
- 2 tbsp – Honey
- 1 tsp – Vanilla extract
- 2 tsp – Orange liqueur

Truffle coatings

- Cocoa powder spiked with paprika
- Crushed pistachios
- Chocolate vermicelli
- Colorful sprinkles



Sweet As Honey *continued*

Instructions

1. Roughly chop the chocolates, or else if you have grater then grate the chocolates.
2. In a heavy bottom small saucepan, bring the heavy cream to a gentle simmer.
3. Pour the cream onto the chopped chocolate and let it cover for 30 seconds
4. Heat the honey until it starts bubbling and it to the chocolates.
5. Start mixing the chocolate and cream by using a silicone spatula. Just making a cutting action or 8 mix the chocolates and cream, a vigorous stirring may infuse more air bubbles into the ganache, which is not desirable.
6. Softened the butter and add it to the chocolates, blend it well.
7. Let the ganache cool slightly before adding the alcohol or other flavourings.
8. Let the flavouring set for few minutes, give it a final stir and cool to room temperature before wrapping it with a cling film and let it chill for hours, may be overnight. For quick-setting, freeze it for an hour.
9. Remove and with the help of spoon, or melon baller or ice cream scooper, scoop out small portions of ganache (it should be firm enough to form a ball).
10. Grease your palm with unsalted butter and make small chocolate balls and immediately roll them in the coating.
11. Chill them until needed.





UPCOMING EVENTS

February 2016

CT: American Honey Tasting Society presents, Honey 101: Introduction to Honey Tasting (1st Graduating Class) with Instructors Carla Marina Marchese & Raffaele Dall'Olio (Albo Nazionale Esperti di Analisi Sensoriale del Miele)
February 2-3 or 6-7, 2016
Norfield Grange, 12 Goodhill Rd, Weston, CT
Info: americanhoney Tastingsociety.com
Email: HoneyTasting@optonline.net

NM: NM Beekeepers Association Annual Meeting featuring author Mark Winston, Liz Walsh (Texas A&M), Dr. Stephen Rankin & Dr. Don Hyder (NM Medicinal Honey research)
February 5-6, 2015
Info: www.nmbeekeepers.org

Ohio: OSU Bee Lab- Creating Pollinator Habitat
February 18, 2016
OARDC's Shisler Conference Center in Wooster
Info: <https://u.osu.edu/beelab/>

Georgia: Chattahoochee Valley Beekeepers Association offering Wounded Warrior Beekeeping Program.
Starting February 20- April 2, 2016
Deadline for applying is Feb. 14, 2016
Contact: CVBA President Paul Berry
Tel: 706-527-0739

Utah: Utah Beekeepers Convention
February 26 - 27, 2016
Best Western CottonTree Inn
Info: www.utahbeekeepers.org/convention

March 2016

CA: Laidlaw Bee Lab Queen Rearing Short Course with Dr. Elina Nino-Castro
March 11-12, 2016
UC Davis
Info: <http://elninobeelab.ucdavis.edu/qrtsc.html>

MI: Michigan Beekeepers Association Annual Spring Conference featuring keynote Gary Reuter, Dr. Zachary Huang, Dr. Megan Milbraith and more.
March 11-12, 2016
Kellogg Hotel & Conference Center
Michigan State University
East Lansing, MI
<http://www.michiganbees.org/>

MO: Midwestern Beekeepers Association 21st Annual Beginning Beekeepers Workshop
March 12, 2016
Lakewood Oaks Golf Club
Lee's Summit, MO
Info: www.midwesternbeekeepers.org/2015/12/beginning-beekeepers-workshop/

CA: 3rd Annual California In Her Majesty's Chambers Intro to Queen Breeding & Rearing Short Course with visiting Instructors Melanie Kirby & Mark Spitzig of Zia Queenbees Farm & Field Institute & Aiden Wing of Wings of Nature Apiaries.
March 19, 2016
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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