

# Illinois State Beekeepers Association



## BULLETIN

1891-2019



### MESSAGE FROM THE PRESIDENT

Corky Schnadt

A very special thanks to all the volunteers who made the ISBA's participation in the Illinois State Fair in Springfield such a big success. It was a great year. A lot of honey ice cream was sold and many people in the general public came away with a much better understanding of bees and beekeeping.

Our annual Fall Meeting is right around the corner on Saturday, November 9. It will be at the Department of Agriculture Building right on the State Fair Grounds. The conference room has been renovated with new lighting and the latest in IT equipment. It'll be a great venue for this year's meeting, which will be a chance to hear outstanding speakers and spend time with several vendors. All of the speakers are nationally-known for their expertise in their respective areas, and many presented at the last American Beekeeping Federation (ABF) conference in South Carolina. Here's your chance to hear them without traveling out of the state. Gary Rueter will talk about bee

biology. Ginger Rueter will have a presentation on candle making. Tim Wilbanks will discuss commercial Queen and Package Bee Production and Distribution and what it's like being involved in a large-scale family run bee business. Also Dr. Adam Dolezal from the University of Illinois will give us the latest updates in his research.

Also, the ABF Conference will be in Illinois in early January 2020. By all accounts, it will not be back in Illinois for a long, long time. So, I hope to greet many ISBA members at the event. There is more about it in the Bulletin.

Please take a moment to answer my question found later in the Bulletin about what ISBA can do to help you in your beekeeping. Your input will be what guides us going forward into 2020.

Thank you so much and looking forward to seeing you at the ISBA Fall Meeting.

Corky



Julie McKinney (President, St. Clair Beekeepers), Sharon and Steve Petrilli at Honey Ice Cream booth.



Runaway pig  
He took out most of the people on the podium.

I HAVE A QUESTION I'D LIKE TO ASK YOU:

Corky Schnadt



***Is there anything else ISBA can do to support you as a beekeeper?***

This may sound like a simple question, but I expect it could generate a range of answers that is as wide as the ISBA membership—experienced beekeepers, new beekeepers, hobbyists, commercial beekeepers, folks keeping bees on a city roof, folks with bees on their farms, those coping with the late spring of northern Illinois, and those whose southern climate seems to bring more hive beetles to the hive.

Maybe you would find more workshops helpful or maybe you would rather access a video on ISBA's website. Would more articles in the Bulletin be helpful, or maybe an on-line Bulletin? These are only some possibilities; maybe you have some other idea entirely.

Please give me **your** thoughts.

Please send me an email [Corkyschnadt@gmail.com](mailto:Corkyschnadt@gmail.com) or if you don't have email access, drop me a note:

Illinois State Beekeepers Association  
PO Box 21094  
Springfield, IL 62708

I won't be able to follow up with a reminder, so please think about it and get back to me soon, but no later than Oct 20<sup>th</sup>, so I have time to compile the answers and report back at the Fall Meeting and in the November/December Bulletin.

Thank you so much,  
Corky



**ELECTIONS FOR THE 2020 ILLINOIS STATE BEEKEEPERS ASSOCIATION BOARD**

Elections for the 2020 Illinois State Beekeepers Assn Board will be held at the Annual November Meeting. The Nomination Committee has contacted all of the current board members that are up for re-election. All of the current officers have consented to run for another term.

The following are the Nomination Committee's recommendations for the 2020 state board:

- Corky Schnadt, Hainesville, IL – President (1-year term)
- Rose Leedle, Mulkeytown, IL – Vice-President (1-year term)
- Charity Davis-Woodard, Dorsey, IL – Secretary (1-year term)
- David Nellis, Ava, IL – Treasurer (1-year term)
- Larry Kregel, Marengo, IL – Northern Region Director (3-year term)

Any member in good standing may be nominated from the floor. The member whose name is placed in nomination must have previously agreed to accept responsibility of the office and must be present at the time of voting.

**Illinois State Beekeepers Association  
Annual Fall Meeting  
November 9, 2019**

- 7:30 AM Check-in/Registration
- 8:30 AM Welcome/Pledge of Allegiance/Introduction/Recognition of Veterans
- 8:40 AM Awards/ISBA Update
- 9:30 AM IDOA Brian Rennecker
- 10:00 AM Nominations of Officers
- 10:15 AM Break/Visit Vendors
- 10:30 AM Tim Wilbanks, *Commercial Queen & Package Production/Distribution*
- 11:30 AM Tim May, ABF
- 12:00 PM Lunch
- 1:00 PM Elections, if contested Offices
- 1:30 PM Gary Reuter, *The Differences between Summer and Winter Bees*
- 2:30 PM Break/Visit Vendors
- 2:45 PM Ginger Reuter, *Candle Making*
- 3:30 PM Adam Dolezal, University of Illinois
- 4:30 PM Door Prizes/Closing Remarks

A block of rooms is reserved at the Comfort Suites, Springfield, IL. Please note rooms need to be booked by the cutoff date of **Wednesday, October 9, 2019**, when they'll be released to the general public. Reserve your room online or call the hotel directly. \*See below for terms.

Below is the information you need to make your reservation.

**Group Name:** ILLINOIS STATE BEE KEEPERS ASSOCIATION 2019

**Group Code:** RH99L6

**Check In:** Friday, November 8, 2019 (3:00 PM)

**Check Out:** Sunday, November 10, 2019 (12:00 PM)

**Cutoff Date:** Wednesday, October 9, 2019

**Group Billing Options:** Guest is responsible for all charges.

**Comfort Suites**

2620 S. Dirksen Parkway  
Springfield, IL 62703  
(217) 753-4000



## 2020 AMERICAN BEEKEEPING FEDERATION CONFERENCE & TRADESHOW

Renaissance Schaumburg Convention Center Hotel  
Schaumburg, Illinois  
January 8-11, 2020



The ABF Conference & Tradeshow is right around the corner, and it's taking place in your neck of the woods! The Illinois State Beekeepers Association is pleased to join the American Beekeeping Federation in hosting beekeepers from across the United States and the world.

### Experience the Future of Beekeeping!

The 2020 ABF Conference & Tradeshow promises more education, more research, and more networking than ever before. We're partnering with industry experts, researchers, exhibitors and your beekeeping peers to bring you all the latest in best practices and bee health.

Don't miss this opportunity to network with 900+ beekeepers and meet with 100+ companies providing beekeeping products and services—all in one location. The expo hall is open for four days, including Saturday, to give you plenty of time to shop.

### Register today.

ISBA members are eligible to register at the ABF member rate! Register by October 31 for early-bird savings. Use promo code **ISBA2020** at checkout. Visit the conference website: [www.abfconference.com](http://www.abfconference.com)

### Education for All Beekeeping Skill Levels

- Keynotes by thought-leaders Dr. Samuel Ramsey, University of Maryland, Dr. Jonathan Lundgren, Blue Dasher Farm, and Dr. May Berenbaum, University of Illinois at Urbana-Champaign
- 80 distinguished speakers discussing hot topics and trending issues
- 20 interactive and hands-on workshops
- Tradeshow packed with the latest beekeeping innovations
- Kids and Bees program for the next generation of beekeepers

### Optional Activities

- 2020 American Honey Show to show off your bees' talent
- Thursday night social with dinner and show at the IMPROV
- Exclusive meeting of the nation's commercial beekeepers
- ABF banquet and coronation of the 2020 American Honey Queen and Princess

## 2020 AMERICAN HONEY SHOW: CALL FOR ENTRIES



The 2020 American Honey Show will showcase the best examples of honey and beeswax. It includes 18 classes—12 for honey, five for beeswax, one for beeswax art and the gift box class. After the entries are judged, they will be auctioned to benefit the American Honey Queen Program.

### How to Enter

The official show rules and regulations and entry form are available on the 2020 conference website at [www.abfconference.com](http://www.abfconference.com). It also includes helpful honey show hints and tips!

You may hand deliver your show entries to the 2020 ABF Conference & Tradeshow—a breeze for local Illinois beekeepers!

Continued...

## KIDS AND BEES: FUN FOR THE WHOLE FAMILY

On Friday, January 10, from 9:00 am to 12:00 pm, hundreds of little feet will pitter-patter through the halls, dodging beekeepers as they wander their way to their very own beekeeping event. Plan now to bring your elementary-aged kids to the renowned Kids and Bees program. This free, educational session has been a featured event during the ABF Conference & Tradeshow for over 20 years and is a don't-miss opportunity for school groups, home-schooled kids, scouts, and clubs.



Kids can expect a room full of hands-on exhibits under the themes “The Art of Beekeeping,” “The Science of Beekeeping,” “The World of Beekeeping” and “The Future of Bees: It’s Up to You!” They will learn about the art and science behind beeswax, honey, pollination, ultraviolet bee vision and so much more! Students will make their way through each station, engaging with beekeepers and participating in activities that will harness their senses and imaginations.

It is wonderful to watch local families connect with their local beekeepers. We will have about 25 stations/exhibits set up in a large room. About 500 kids and their parents and teachers will come through the exhibits. I am looking for volunteers to host the stations. The stations need 2-4 volunteers each and include face painting, honey tasting, pollination, habitat, microscopes, arts and crafts, and more. We’re looking for about 30 volunteers to help teach kids all about bees during the event. **For more information on volunteering or to sign up, contact us at [thehive@beegirl.org](mailto:thehive@beegirl.org) or 541-709-1127.**

## WHAT ATTENDEES HAVE TO SAY

*“This conference tagged all the bases—talking with other beekeepers, gathering new research information, and combining those to build better beekeeping practices.”*

*“Mushrooms, space labs, varroa on the belly, tank mixing pesticides...Such a range of good stuff.”*

*“The ABF Conference & Tradeshow is the greatest opportunity to build relationships with potential customers, maintain relationships with current customers and represent my company as a member of the beekeeping industry and community.”*

*“As a hobby beekeeper, it was exciting to be around so many icons of the industry.”*

*“Each year, I look forward to the ABF conference for the exchange of bee information with beekeepers from different levels and interests of beekeeping.”*

*“Kids and Bees was awesome! And, I loved meeting fellow beekeepers and making some great new friends!”*



## SOUTHERN DISTRICT NEWS

Doug Leedle

I have been busy in the Southern District as the guest speaker for four of the southern clubs. The topic was getting your bees ready for fall and winter. All the meetings were well attended, and everyone was enthusiastic about their bees. I was able to attend Kaskaskia Beekeepers meeting where they had EAS Master Beekeeper, Kent Williams, speak on varroa mites. I hope to attend the remaining clubs' meetings in the next several months.



Some areas are in a dearth right now while others' bees are pulling in the pollen from the late planted soybeans. General consensus is that it has been a decent year for the honey crop even with the rainy start.

If I can help out any of the Southern District Clubs, just let me know. [d.leedle@hotmail.com](mailto:d.leedle@hotmail.com), (618) 340-2212



## ASSOCIATION SPOTLIGHT

### Apple Creek Beekeepers Association



The Apple Creek Beekeepers Club was organized in March, 2017 by a small group of interested and dedicated beekeepers under the guidance of Carolyn and Fred Gerberding and Dale Brooks. 2019 officers are Tom Phillips (President), Dave Henderson (Vice-president), Adam Porter (Treasurer), and Barb Ward (Secretary). The club currently has members from Cass, Green, Macoupin and Morgan counties. The club is currently setting up a website and has a Facebook page. The group, which is an affiliate of the Illinois State Beekeepers Association, meets on the third Thursday of every month at the University of Illinois Extension Service Building on Westgate Avenue in Jacksonville, IL beginning at 6:30 p.m. Guests are welcome to attend any of the meetings.



HEARTLAND APIARY SOCIETY  
Rose Leedle



Heartland Apiary Society [HAS] held their annual meeting in Bowling Green, Kentucky, on July 8–10, 2019. Twenty-five Illinois State Beekeepers Association members, including four of our Board members, took this opportunity to become better educated beekeepers. I attended as your ISBA representative on the HAS Board. Participants were able to hear keynote speakers: Dr. Juliana Rangle Posada, Dr. Geoff Williams, Dr. Jennifer Tsuruda, Dr. Reed Johnson, Dr. Jay Evans, and Dr. Jerry Hayes. Each keynote speaker led a breakout session, along with Dr. Jim

Tew, Dr. Charles Collison, Dr. Tom Webster, Dr. Hungmei Li-Byarlay, Dr. Zack Hung, Dr. Tammy Horn, and Kent Williams. Fifty HAS meeting attendees could choose to participate in a three-day Queen Rearing Seminar instructed by Mike Wilson, Dr. Greg Hunt, and Dr. Krispin Given. There were fifteen vendors displaying new beekeeping equipment available. An Ice Cream Social on Monday evening and a BBQ on Tuesday evening, provided time with instructors and other beekeepers to socialize and ask questions. We met a couple of beekeepers from New Zealand who attend HAS every year. It was an educational and fun-



filled three days. Since Heartland Apicultural Society was founded in 2001, annual conferences have been held at rotating locations throughout the Midwest, including Edwardsville, IL, in 2005 & Carbondale, IL, in 2014. The 2020 meeting is tentatively scheduled to be held at Northern Illinois University in DeKalb. It is our hope that many of you will be able to take advantage of this great learning opportunity so close to home. It is a great experience.



## ILLINOIS STATE FAIR HONEY SHOW

Larry Roth, Superintendent

The Illinois State Fair Honey Show actually began the day before the official opening of the Illinois State Fair on Wednesday, August 7 with Set Up Day. I was excited to discover that we had reached the maximum entries in the Professional Class of four exhibitors! In recent years, there were only three. The exhibitors were Fox Valley Beekeepers, J M Apiaries, Lincolnland Beekeepers Association, and Sangamon Valley Beekeepers. The Exhibits were judged by Warren Nelson, from Kansas, who is a well-renowned honey/honey product judge in several states.



The theme of the Fox Valley Beekeepers booth was pollination. Education on the importance of bees and pollinators.

The judging started on August 8 at 8:00 a.m. with the Professional Class. As always, each entry was excellent, and it was difficult to choose one over the other. However, only one can win, and that winner was Fox Valley Beekeepers. They received the Governor's Trophy for Originality and Attractiveness. In addition to the Governor's Trophy, they also received the trophy for Sweepstakes, which is awarded to the exhibitor achieving the most points overall. **Congratulations Fox Valley for your outstanding performance and hard work.**

The judge then proceeded to judge the Open Class Exhibitors. Again, the judge examined each entry for taste, clarity, cleanliness, etc., and awarded the Grand Champion (3 2½-lb Chunk Honey Jars) to Karen and Jim Belli. The Sweepstakes Trophy (now known as the Carl and Eugene Killion Trophy) is awarded for most points accumulated in Open Class Judging. The Carl and Eugene Killion Trophy was again awarded to Karen and Jim Belli.



On Monday, August 12, the awards were given out by the Director of Agriculture, John Sullivan; Superintendent of Apiary Inspection, Brian Rennecker; Illinois County Fair Queen, Alexi Bladel; and Eugene Killion (who had just received his own award for Citizen of the Year). **Congratulations to Karen and Jim Belli and Eugene Killion for their Achievements.**



Tuesday, August 13, we come the the Governor's Auction of Grand Champions. Karen and Jim Belli were both at the auction where their Grand Champion Honey (3 2½-lb Chunk Honey Jars) were sold for \$600! **Great Job.**

Thursday, August 15 was the Taste of Honey Cookoff. The Lincolnland Beekeepers Association again sponsored this event with the help of judges from Apple Creek

Beekeepers of Jacksonville, IL. In addition to the Senior entries, there was an additional entry for kids known as Junior entries. The Junior entries were added to introduce and encourage our youth to use honey and honey products!



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The winners of the Senior Entries were as follows:

1st Place - Jennifer Lair for her Honey Lover's Cake; 2nd Place - Darlene Crider for her Pecan and Honey Diamonds; and 3rd Place - Dianna Wara for her Lemon Honey Jelly.

The winners of the Junior Entries were as follows:

1st Place - Inara Lair for her Honey Taffy; 2nd Place - Rachel Fishburn for her Granola Snacks; and 3rd Place - Ava Adams for her Honey Bee Cookies.

Needless to say, the judges had so much fun, they each volunteered again for the 2020 State Fair Taste of Honey Cookoff! **Congratulations to each winner!!**

The Illinois State Beekeepers Association (ISBA) again sponsored the Honey Ice Cream which is always a huge draw each year. Thank you to all who participated in this fundraiser for the Illinois State Beekeeper Association to make it a success.

The 2019 Illinois State Fair Honey Show was very well-received, and **congratulations to all who participated.**



On Monday, August 12, Fox Valley Beekeepers Association was presented with their ribbons and plates by Gene Killion along with the Department of AG, the Miss Illinois County Fair Queen and Larry Roth.



FVBA fair committee members L-R Judy DeWitt, Angela Nelson, Amy Storm, Jodie Steele and Reid Root



## HONEY BEES USE ROYAL JELLY TO SHARE DISEASE INFORMATION WITH NESTMATES

Gyan Harwood & Adam Dolezal

As a biologist, one subject that really piques my interest is the interplay between pathogens and the immune system, particularly in a system like honey bees where their complex social structure adds another layer of intrigue. Over the past few years, my (Gyan Harwood) research has looked at a substance that plays an important role in honey



bee biology: Royal jelly. Workers (nurses) produce royal jelly in glands in their head

and then feed it to young larvae and the queen. It has been the subject of much study for nearly a century, and it was discovered early on to play a key role in queen development: a female larva that is continuously fed royal jelly will develop into a queen while female larva that is switched to a different diet after 3 days will develop into a worker <sup>(1)</sup>, despite the two larvae having very similar genetics. And the more that researchers studied royal jelly, the more they began to uncover other important properties. It was soon discovered to have strong anti-bacterial and anti-pathogen properties <sup>(2)</sup>, meaning that nurses can share supplemental pathogen protection with their nestmates. This helps protect the queen and young larvae from diseases, and may be particularly important for larvae, as they are still developing and susceptible to many pathogens. Scientists have since narrowed in on the active ingredients in royal jelly that give it these abilities. For example, royal jelly contains enzymes that lead to the production of hydrogen peroxide, just like that used in human first aid, which can kill bacteria <sup>(3)</sup>. It also contains powerful molecules of the immune system called anti-microbial peptides, which are used to destroy many bacterial and fungal pathogens <sup>(4)</sup>. Together, all of these ingredients help ensure that the food eaten by the queen and young larvae is not contaminated with pathogens.

Now, in the latest research, scientists are finding that the royal jelly not only contains

enzymes and proteins that protect colony members in the present, but it can also contain pieces of bacterial cells that may provide more long-term protection against diseases. In my own study from earlier this year, I found that when workers are given food with bacteria in it, they are able to transfer pieces of these bacteria to their jelly-producing glands, where they may be incorporated into the royal jelly itself and then transferred to other colony members <sup>(5)</sup>. So how can transferring bits of bacteria help protect other colony members in the long term? Well, it has to do with how a bee's immune system interprets and responds to these bacteria. Bacteria cells are constructed out of different material than animal cells, and the bee's immune system can recognize these bacteria cells as being different from their own cells, and potentially pathogenic. In response, the bee's immune system kicks into high gear and starts to mobilize different weapons that it can use to fight infection, making them more resistant to diseases. This response can last for extended periods of time.

This research also builds on other recent studies showing that queens can transfer pieces of bacteria into their developing eggs <sup>(6)</sup> and produce larvae that are more



resistant to disease <sup>(7)</sup>. For example, if a queen is injected with inert American foulbrood cells (that is, cells that have been heat-killed so they are no longer pathogenic), the next generation of larvae will be more resistant to American foulbrood infection. This is similar to the cholera vaccine in humans, where an injection containing dead bacteria helps protect the body against the live forms of the disease. While this is a fascinating discovery, injecting a queen with bacteria is not exactly a natural occurrence. In fact, it's rather more difficult for a queen to become infected than it is for a worker or larva: she is constantly groomed and attended by workers, she has a hard

cuticle that is fairly impermeable to bacteria infection, and she doesn't eat any nectar or pollen that could potentially be contaminated with pathogens. Instead, she only feeds on royal jelly. Now, by combining these recent studies, scientists are beginning to understand that honey bees have an immune system pathway that is shared by the whole colony: workers may encounter bacterial pathogens in their environment, pieces of these bacteria can be incorporated into royal jelly and delivered to the larvae and queen to boost their immune systems, and the queen may transfer these bacteria pieces to their next generation of offspring and produce more disease-resistant offspring.

As we continue to increase our understanding of this interaction between diseases, the immune system, and royal jelly, we will be able to provide better solutions to managing honey bee diseases. Already, a team of researchers is using these latest findings to develop honey bee "vaccines" against American foulbrood, in which an oral dose fed to workers can then help the queen create more disease-resistant offspring<sup>(8, 9)</sup>. While honey bees continue to face threats from many different diseases, these recent developments may help beekeepers protect their hives from some of the most deadly bacterial pathogens.

References:

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4. Bachanová K, Klaudiny J, Kopernický J, Šimůth J (2002) Identification of honeybee peptide active against *Paenibacillus larvae* larvae through bacterial growth-inhibition assay on polyacrylamide gel. *Apidologie* 33(3):259–269.
5. Harwood G, Amdam G, Freitak D (2019) The role of Vitellogenin in the transfer of immune elicitors from gut to hypopharyngeal glands in honey bees (*Apis mellifera*). *J Insect Physiol* 112:90–100.
6. Salmela H, Amdam GV, Freitak D (2015) Transfer of Immunity from Mother to Offspring Is Mediated via Egg-Yolk Protein Vitellogenin. *PLoS Pathog* 11(7):e1005015.
7. López JH, Schuehly W, Crailsheim K, Riessberger-Gallé U (2014) Trans-generational immune priming in honeybees. *Proc R Soc Lond B Biol Sci* 281(1785):20140454.
8. The first-ever insect vaccine PrimeBEE helps bees stay healthy (2018) *Univ Hels*. Available at: <https://www.helsinki.fi/en/news/sustainability-news/the-first-ever-insect-vaccine-primebee-helps-bees-stay-healthy> [Accessed August 29, 2019].
9. World's First Insect Vaccine Could Help Bees Fight Off Deadly Disease *NPR.org*. Available at: <https://www.npr.org/sections/thesalt/2018/12/07/674587061/worlds-first-insect-vaccine-could-help-bees-fight-off-deadly-disease> [Accessed August 29, 2019].

**ADAM G. DOLEZAL**

Assistant Professor  
Department of Entomology  
College of Liberal Arts and Sciences Administration  
University of Illinois at Urbana-Champaign

**GYAN HARWOOD**

Arizona State University, School of Life Sciences  
Department of Entomology  
University of Illinois at Urbana-Champaign





Illinois State Beekeepers Association  
PO Box 21094  
Springfield, IL 62708

Membership in the Illinois State Beekeepers Association is open to all persons interested in bees and beekeeping. Beekeepers are urged to join through their local Associations or individually if no local Associations are available. Dues are **\$10** for the calendar year January 1 – December 31 only. Dues include a subscription to this newsletter, the ISBA Bulletin.

Make checks for membership payable to: ISBA and mail to: Illinois State Beekeepers Association – Membership, PO Box 21094, Springfield, IL, 62708

Address changes: Send old and new address six weeks prior to date of change when practical to the Association Secretary. At-large members can email the change to the ISBA Membership Director at [spetrilli45@gmail.com](mailto:spetrilli45@gmail.com)

### **American Bee Journal**

**\$23.80** – 1 year

**\$45.05** – 2 years

**\$63.75** – 3 years

<http://www.ilsba.com/links.html>

(888) 922-1293

### **Bee Culture**

**\$25** – 1 year Print Edition

**\$15** – 1 year, Digital Edition

**\$48** – 2 years, Print Edition

**\$69** – 3 years, Print Edition

**\$20** – 1 year, BEEKeeping Your First 3 Years

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