



Issue 131 - Version 1

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JANUARY 2020

MISSOURI STATE BEEKEEPERS ASSOCIATION

THE BROOD



Missouri State Beekeepers Association's spring conference will be held at Metropolitan Community College – Longview Campus in Lee's Summit, MO on Friday March 13 – Saturday March 14. The following are the keynote speakers: Dr Tammy Horn Potter, Kentucky Apiarist, is presenting on the subjects of The Kentucky Certified Honey Program, Best Management Practices for Hive Health, & Establishing Pollinator Habitat. Elizabeth Walsh, PhD candidate Texas A & M University, is presenting on the subjects of Integrated Pest Management Today & Pesticide Impact on Queen Development. Grant Gillard, Missouri Beekeeper and Author, is presenting on Taking Your Beekeeping to the Next Level & Seven Habits of Highly Successful Beekeepers. Rounding out the speaker lineup is Jerry Brown, 3rd generation commercial beekeeper and past Executive Director of the American Honey Producers Association, speaking on the subject of Honey Issues in the USA.

In addition, there will be breakout classes on The Great Plains Master Beekeeping Program Overview presented by Gregg Hitchings, Florida State Master Beekeeper; Bee Stings taught by Dr Michael Brown, MD; Queen Rearing by Cory Stevens, Queen Breeder and EAS Master Beekeeper; and Beekeeping Success for Year 2 & 3 by Grant Gillard, Missouri Beekeeper and Author.

For Conference Registration (also on page 18), hotel and meals information, go to www.mostatebeekpers.org. Friday evening there will be a Banquet at Lakewood Oaks Country Club in Lee's Summit. For additional questions you may contact Bruce Snavely, MSBA Program Chair at brucesnavely@hotmail.com.

*The Spring Conference
registration form, guest
speaker bios and the agenda
can be found on pages 18-21
of this newsletter*

Letter from our President - Cory Stevens

I can't believe 2019 is in the rear view! I hope you and your family had a very Merry Christmas. I do love the break that the holidays and winter bring. It's a good time to hang out with family, recuperate, prepare equipment, and plan for the upcoming season. My beekeeping resolution this year is not to hibernate (procrastinate) all winter, and rush to get everything squared away late winter/early spring like I typically do. I have several stacks of new equipment that I have already started hot wax dipping. It feels good to get moving on the things you know you have to do.

Speaking of things to get moving on, MSBA has been working hard on planning for next year's conferences. Bruce has secured a site for our spring conference at Metropolitan Community College in Lees Summit. As usual we have some great speakers on the agenda. Tammy Horn Potter from Kentucky, Liz Walsh from Texas A&M, Jerry Brown, and our own Grant Gillard. We have some great break out sessions planned as well. Dr Michael Brown will be speaking on "bee stings,"

which sounds really cool. Gregg Hitchings will do a GPMB program overview to keep us up to date as this program evolves. I will do a breakout session as well on Queen rearing. There will be lots of great information, so you won't want to miss it. It is perfectly timed on March 13th and 14th for beekeepers to get amped up for the upcoming season before things get crazy. Don't forget the conference is also a great place to pick up some new equipment you may need from our great vendors on site.

I hope you are as excited for 2020 as I am! MSBA has a lot going on this year, and we would love to see you at our events. From our Spring and Fall conferences to our second annual field day and Great Plains Master Beekeeping course evolving, this new year is bringing loads of potential to Missouri. I pray that 2020 treats us well with good weather, and heavy hives.

~ Cory



Missouri State Fair



August 13-23, 2020

Booth workers get a Free Admission Ticket

Sign up to volunteer by contacting
Erin Mullins; emullins93@gmail.com or
Wes Johnston; 2bees@kc.rr.com

MSBA Membership

Membership dues are \$10 per individual. To sign up, or to renew a membership, go to the MSBA website at www.mostatebeekeepers.org by utilizing PayPal or you can mail a check (see address below) with your first and last names, address, telephone number, and email address. We gladly accept batch memberships if given the information on a typewritten list and either a check from the local club's treasurer or secretary. Notices for renewal are sent out the month preceding your membership expiration.

Thank you for supporting MSBA!

Wanda Johnston
MSBA Membership
401 NW Hedy Avenue
Ferrelview, MO 64163
email: bees@kc.rr.com

Reducing Spring Colony Loss

Update on 2019 Spring Turnover Experiment

- Carl Korschgen, *Research Biologist (retired)*

See part 1 in the January 2019 issue of the Missouri State Beekeepers Association newsletter (The Brood, Pages 16-18, mostatebeekeepers.org)

This report updates the results of my spring 2019 experiment involving the spring turnover of my honeybee colonies. As you are probably aware, much can go wrong in the spring when a colony transitions from overwintering to active foraging and brood production. This is often referred to as the turnover of a colony, a time when the queen bee is stimulated to lay approximately 1500+ eggs per day, the forager bees bring in pollen, and the nurse bees access pollen and honey to make bee bread to feed brood. Twenty one days after a turnover there can be as many as 1500 new bees starting to emerge every day and soon a healthy colony should have replaced all of the winter bees.

However, oftentimes the turnover doesn't unfold in an ideal manner. I hypothesized that abnormally high losses of colonies in late winter and early spring of 2018 may have been the result of the failure of the colony to transition through the spring turnover because of unseasonably early warm weather. This assumption is based on three sources of information. First, articles by Randy Oliver in the American Bee Journal and posted at Scientificbeekeeping.com, second, analysis of weather data for spring 2018, and third, by observing foraging bees at the time of the early warm weather.

Critical to a premature spring turnover of a colony is an early plant bloom in response to the early warm weather. I found that some plants bloomed by responding to the temperature cues between February 17-19, 2018 and resulted in forager bees taking pollen into the hive at that time. That February pollen triggered a turnover, causing a physiological and behavioral "SWITCH" in the winter

bees (Fig. 1). During the turnover period, vitellogenin and glycogen (molecules in the honeybees that allows them to store protein and carbohydrate reserves, respectively) is depleted in worker bees and that reduces their remaining life span to about 35 days.

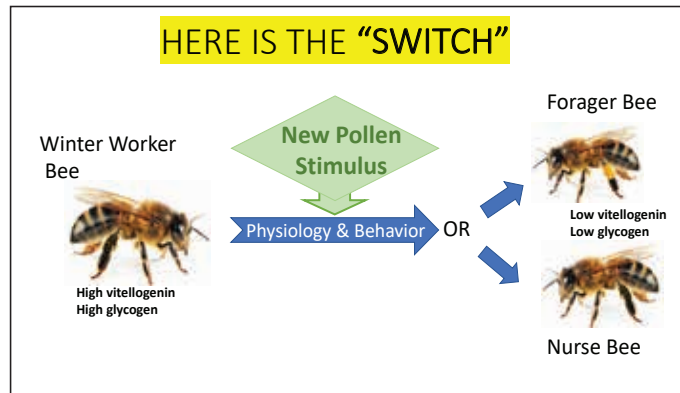


Figure 1 - Physiological and behavioral switch that winter worker bees undergo at onset of spring turnover

2019 EXPERIMENT

Realizing that Missouri often has an early warm period in late January and early February that could trigger a premature "SWITCH" I initiated a four-step plan in mid-summer of 2018 to help mitigate the effects of a premature "switch" event should it happen in the forthcoming winter. The steps consisted of feeding, venting, temperature and pollen

monitoring, and heating.

Feeding. Starting in the fall, I fed the colonies sugar solution using a communal open feeder. In November I ended the communal feeder and added a candy board (Fig.2) above the top frames. I placed 1.5 inch foam board with four - 3/4 inch holes on top of the candy board.

Venting. In November 2018, I moved the hives from their field site to a lean-to of my barn. A 6-inch ventilation box (Fig. 2) was placed above the top super to ensure good ventilation through the hive. Entrance reducers were used to prevent excessive air drafts.



Figure 2 - Ventilation box, insulation board, and candy board on hive.

Continued on page 4

Continued from page 3 ...Reducing Spring Colony Loss

Temperature and Pollen Monitoring. I continually recorded the internal temperatures (Sensorpush sensors) of two hives (at the candy board level) and the ambient temperature on the outside of the hives. I started heating the colonies in the spring of 2019 (described below) on the day of the SWITCH (March 15, 2019) when I observed bees bringing pollen into the hives. The average temperature for 30 days after the SWITCH was 52.7F, 10.5 F warmer than in 2018. Based on my analysis of 10 years of spring weather this was a late spring for central Missouri. Given the uncertainty of spring weather in Missouri, I proceeded to heat the hives for 35 days to support their survival. Honeybees must cluster at a temperature of 57F. My goal was to increase the internal temperature of the six hives above 57F so that the bees would not have to cluster and would expend less energy keeping brood warmed to 90F. Also, the bees would have full access to all of the honey and pollen stored in the hive.

Hive Heating. The traditional bottom board was replaced with a deeper frame constructed of 2x4 or 2x6 lumber on the sides (Fig. 3). There is one 3 1/2" screened hole for ventilation in the floor of the bottom board. The front of each bottom board was closed off with a board that contains two screened ventilation holes so that I can control air flow through the hives. This design created space under the hive where I wired in two light sockets. With two 75 watt incandescent light bulbs I could safely increase the ambient temperature within the hive body to a desired level. Flow of heated air through the bottom board into the hive body was

restricted to a 1 inch hole in the front of the bottom board. The hives were covered on all sides with 1 1/2" foam board.



Figure 3 - Modified hive bottom board.

RESULTS

With two light bulbs I was successful in increasing the internal temperature to the desired level (Fig. 4). In fact, based on the average monthly temperatures of Columbia, Missouri, I advanced the temperature regime within the hives by more than 1 1/2 months.

I had 100% survival for hives using the method as described above (6 out of 6 hives). Additionally, these hives were much stronger at the start of the spring season. Based on the reports from other beekeepers in the local bee club I believe my 6 hives were far more productive than many others – 100% survival, total of 250 pounds of honey, and equally significant, 13 or more primary and after swarms were generated from these colonies. I was successful in capturing 13 of these swarms and that actually enabled me to increase the size of my apiary by nine colonies (many swarms were given to friends). During the summer and fall of 2019 I did not lose any colonies in my apiary. Furthermore, I did not requeen, I did not treat for varroa, nor did I force split the colonies.

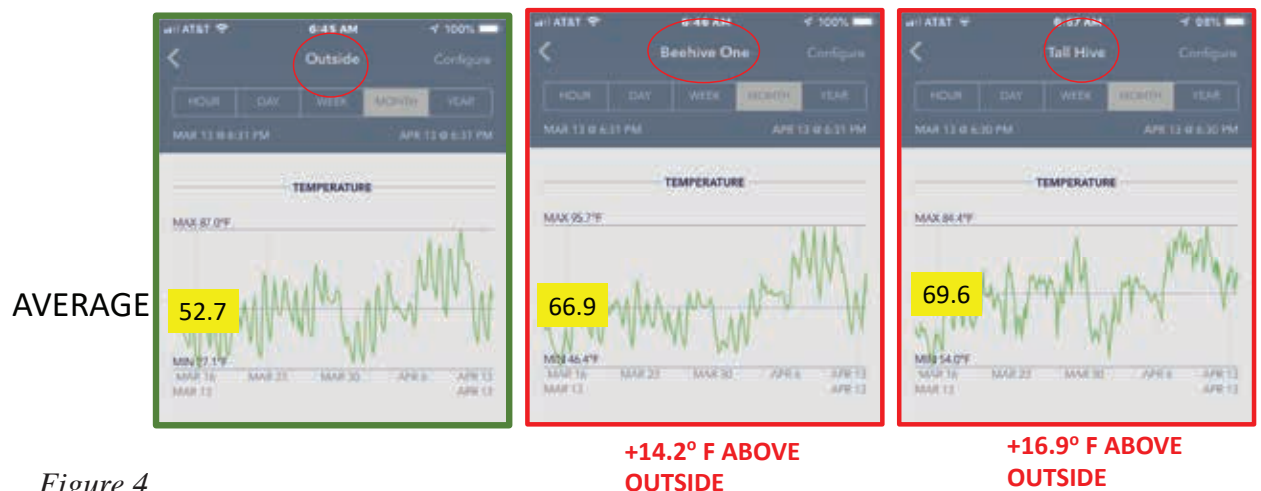


Figure 4

Continued on page 5

Continued from page 4 ...Reducing Spring Colony Loss

PREPARATIONS FOR SPRING 2020

On August 15, 2019, I started hive top feeding with a sugar solution for the nine new colonies. On October 1st, I decided I would not pull any honey from my older colonies and started open feeding of all colonies in the apiary, now totaling 15. In total, the hives consumed 1500 pounds of sugar to make syrup between August 15 and October 15.

I have designed heated pallets that contain two light bulb sockets and each will support two hives (Fig. 5).

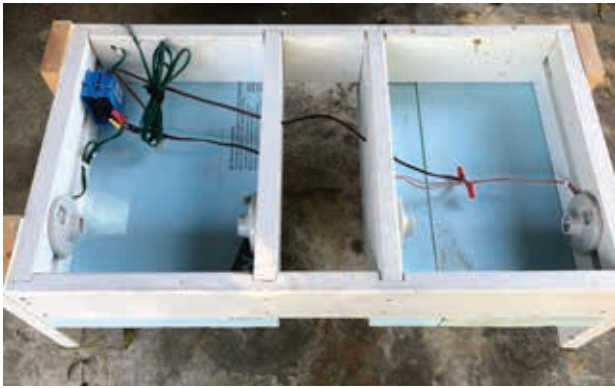


Figure 5 - Configuration of heated hive pallet

I can use any combination of 60 to 100 watt incandescent light or ceramic heat lamps to produce the desired amount of heat. Ratchet straps are used to hold the hives on these pallets and move them between the apiary and the lean-to with pallet forks on my tractor.



Figure 6 - Hives placed in lean-to of barn. Foam board was added to the sides a couple of days later.

On November 6, 2019, I moved all 15 colonies to the lean-to of the barn and placed them on the new pallets (Fig. 6). Each hive again was provided with a candy board and top insulation vented into the ventilation box. I then placed foam board sheets around all four sides of the hives. I will be observing bees to determine the date of the SWITCH this coming spring. At that time I will again heat the hives. I am monitoring the internal temperature in two of the hives and on the outside of the hives with sensors.

If I can maintain colony survival above 75%, I believe all this extra effort and expense is worth it, especially for a beekeeper with a few colonies!! Given the high cost of packages and nucs of bees it is very economical to build my deep bottom boards and heated pallets for approximately \$25 a colony.

I would like to thank five beekeeper friends who provided peer review of this article.

For more information:



Old bees/cold bees/no bees, Part 1--June 2008

Old bees/cold bees/no bees, Part 2 -- July 2008

What happened to the bees this spring – June 2013

Understanding colony buildup and decline, Part 3 The "Spring Turnover" -- April 2015

Carl Korschgen has been a member of the Boone Regional Beekeepers Association for 11 years. He is a retired research biologist with the U.S. Department of Interior and lives in Columbia, Missouri.

Carl Korschgen: 6951 S. Lakota Ridge Lane, Columbia, Mo. 65203, carlkorsch@aol.com, 573 819-8516

- by Erin Mullins, *MSBA State Fair Coordinator*



For our first Member Spotlight feature for 2020 we get to know our newest Lifetime Achievement award winner Eugene Makovec. Eugene has been an asset to the MSBA for many years and he and his wife Diane are always eager to help wherever they are needed. Eugene is also the Editor of the American Bee Journal. We are lucky to have him as a part of our organization.

Q: What sparked your interest in beekeeping?

A: My dad was a beekeeper and we always had about 4-6 hives in the yard on our dairy farm. I thought they were cool but didn't have any interest otherwise till my 30s when a combination of ill health and varroa forced him to give it up. It wasn't the same buying honey at the store, so I called Dad and started asking questions about bees. When he told me that my grandfather, who'd died two years before I was born, had also been a beekeeper (in Slovenia no less), that sealed the deal. I drove up to Wisconsin with a friend to pick up Dad's 1940s Dadant extractor, an ancient smoker and uncapping knife, and miscellaneous boxes and frames. I took a workshop at Jefferson County Beekeepers – that was 1996 – and here I am.



*Eugene Makovec;
MSBA Lifetime Achievement,
Editor of the American Bee Journal*

Q: What beekeeping practices do you use? i.e. Types of hives, breeds of bees, treatment methods, etc.

A: Standard Langstroth hives – why mess with the tried and true? Some screened bottom boards, but mostly solids. The screened boards just don't hold up well, and I haven't seen a real difference otherwise. (I don't keep track of mite-drops and I don't feel the lower ventilation does that much for them.) I do some drone brood removal in the spring, and I guess that helps. Hive beetles have not been a problem for me – they're more an annoyance than a threat in my area – though I am moving the hives in my shady location to full sun before spring to reduce beetle numbers. I overwinter in two deeps for the most part, but don't bother with things like quilt boards and hive wraps, as they survive in much colder climates than Missouri.

My bees are mostly “Missouri mutts.” That's not a philosophical statement, it's just reality. I occasionally buy

a couple of queens elsewhere but within a couple of years they've reverted to mutts – sometimes on purpose, sometimes not. :-)

I don't do year-around tests or treatments for mites. I figure if they've made it through winter, mite counts are low and won't be a problem in spring. We extract honey around the 4th of July, then I spot-test for mites using powdered sugar – I know it's not as accurate as the alcohol wash, but I'd rather not kill those bees and as long as I use the same method every time the results mean something to me. Three mites or more per 300 bees, and I treat the yard. Apiguard is my summer treatment of choice, and it's off in time for the fall nectar flow. Then in winter (about late December when they're broodless) I do an oxalic acid dribble to get most of what mites are left. I NEVER treat prophylactically for nosema or foulbrood.

Q: How long have you been involved with MSBA & what have your roles been in the Organization?

A: I joined MSBA my first year and got their once-in-a-while newsletter, but didn't get involved till 2006 when there was a blurb in there looking for a new editor. I emailed the lady and she told me I was hired. She had no idea who I was, but they were desperate and I was willing. I remade it from scratch, made it more professional, made it available electronically (in color), and put it on an actual schedule – all of which made it much easier to sell advertising. We had two advertisers at the time, Dadant and Draper's, who both ran business-card size ads. The Dadant ad was a mess, like a copy of a copy of a copy. After that first issue went out I called Dadant and ABJ Editor Joe Graham answered the phone. I introduced myself and asked if he could send

Continued on page 7

Continued from page 6

me a better quality ad. He said sure, and while we're at it let's make it a full page. More ads followed from other companies, and by the end of the year the newsletter was paying for itself and then some. They actually gave me Beekeeper of the Year for my efforts.

More importantly, Newsletter Editor was an Executive Board position, so before long I was "involved" whether I wanted to be or not, debating and voting on issues that affected the organization and the state's beekeepers. And my position required me to attend our Spring and Fall Conferences, take copious notes and report back to the membership. (Talk about education!) Meeting many of the country's top beekeepers and researchers was a plus, though I doubt any of them were as impressed by me. By 2014 when the Missouri health department began applying food processing rules to the state's beekeepers, I had the confidence to push the board to support change. My proudest moment with MSBA was listening online in May 2015 as the Missouri Assembly debated and gave final passage to the Honey Bill that I had helped write. That would never have been possible without the support of the MSBA.

Q: What's been the most challenging aspect of beekeeping?

A: Of course I battle varroa like everyone else. And swarming literally keeps me up at night (just ask Diane), when the weather and the work schedule keep me out of my bees at critical times.

But really, what bothers me more than anything is misinformation. First there's the news media. ("The bees are dying!" "It's pesticides!" "It's cell phone towers!" "It's GMOs!"). Then there are some beekeepers themselves. ("Essential oils are all you need to control mites. I saw it on the Internet!") There are just not enough hours in the day.

Q: What's been the most fulfilling aspect of beekeeping?

Mentoring. There's nothing more fun than bringing a brand new beekeeper out to the bee yard to dig through some hives. But there's nothing more fulfilling than to see that same beekeeper mentoring others a few years down the road.

Q: What advice would you give a beginning beekeeper?

A: Spend less time on Facebook and YouTube, and more time in books and magazines. If you need to be on Facebook, there are two pages in the state – Missouri Beekeepers and Missouri State Beekeepers – that do a better job than most at separating the wheat from the chaff.

Find a mentor with at least five years of experience, but help your mentor help you by doing your homework! Join your local and state organizations, and get involved! You can learn a lot that way.



Your Photo could be here...

Send your beekeeping related photos to
MSBAnewsletter@gmail.com
and for more information go to page page 13.

Photo source; all-free-downloads.com

Great Plains Master Beekeeping in Missouri

- Gregg Hitchings, *MO Task Force GPMB Program*, gregghitchings@gmail.com



MSBA members wishing to broaden their knowledge and skills at beekeeping are encouraged to check out the Great Plains Master Beekeeping Program (GPMB), a regional education program based out of the University of Nebraska-Lincoln. The focus of GPMB is to increase the amount of well-educated and successful beekeepers and to provide them the ability to continue their education and to encourage and help others in becoming advocates for bees.

MSBA has evaluated and partnered with GPMB as we recognize the value of this regional training program and we're working toward implementation here in Missouri. The professionally designed program officially launched in April of last year and 2020 is going to see a tremendous

growth in both GPMB certified programs and instructors within our state.

Even if becoming a Master Beekeeper is not something you've ever considered as a goal, consider GPMB as a great resource for study. Contained within the curriculum is solid



beekeeping information, what we need for keeping bees in a sustainable manner. Signing up is free and more information can be found at [Great Plains Master Beekeeping](#).

Are you a member or even an instructor of a local bee club in Missouri? Be aware that the courses offered by your club can be certified through the GPMB program. The first step in this process would involve reviewing the learning objectives of the GPMB program. Something that will aid in this process is a list of the subtopics required of each learning objective. If you would like this list, drop me an email at the address below requesting the subtopics. Of course, programs could be built from scratch using the subtopics and learning objectives as a guide.

Finally, the completed program can be submitted to GPMB for consideration of certification. Submissions may be made online and details are on the website.

We look forward to the significant and positive impact the Great Plains Master Beekeeping program can have on Missouri beekeeping.



To submit a recipe email them to MSBAnewsletter@gmail.com

Honey Lime Fruit Salad

Submitted by Charlotte Ekker Wiggins
from National Honey Board at Honey.com

Ingredients:

4 cups sliced strawberries
3 peeled and sliced kiwis
1 cup green grapes
1/4 cup honey
1 juiced lime

Directions:

In a large bowl, combine the strawberries, kiwi and grapes. In a small bowl, stir together the honey and lime juice. Pour the honey-lime mixture onto the fruit and stir well. Serves 2.

Scoring More Bee Food

- Charlotte Ekker Wiggins, MSBA Partnership Lisison, MSBAcharlotte@gmail.com



Work continues to finalize a score card solar sites owners can use to determine if, and how, a solar site can provide more food for pollinators including honey bees. Honey bees make up approximately 80% of all pollinators. The score card was part of legislation Missouri Governor Mike Parson signed into law June 11, 2019. The legislation went into effect August 28, 2019.

According to the law, "An owner of a solar site implementing site management practices specified in the bill may claim that the site is pollinator friendly or provides benefits to pollinators if the site and its vegetation management plan adhere to the criteria set out in the scorecard. An owner making a claim that it is pollinator-friendly or provides benefits to pollinators must make available to the public and provide to the University of Missouri extension service and a nonprofit solar industry trade association a copy of its completed score."

The Missouri Master Pollinator Steward Steering Committee has been developing the score card to make it both a guide, and a checklist, for pollinator planting. The draft score card is now headed to the Missourians for Monarchs Collaborative for review. The Collaborative represents more than 43 state and federal agencies, including Missouri State Beekeepers Association (MSBA), working together to develop more pollinator habitat in Missouri. The goal is to add 385,000 acres within the next 15 years.

Once the solar site score card is finalized, the score card check list will be posted on the University of Missouri's Master Pollinator Steward website along with a number of helpful links. The score card will be available to the public by the end of February 2020.

The solar site score card is the latest step to help increase pollinator habitat, which is one of three goals set in the 2016 science-based US Pollinator Research Action Plan:

- Reducing annual honey bee losses to less than 15 percent over the next 10 years;
- Increasing monarch populations to at least 225 million at wintering grounds in Mexico by 2020 and
- Restoring or enhancing 7 million acres of pollinator habitat across the country via public-private landholder relationships.

In Missouri, more than 90% of the land is privately-owned so landowners play an important part in providing more habitat for pollinators including honey bees.

The following are links that may be of interest to MSBA members to develop more pollinator habitat:

Land Enhancement Resources

<https://gpmbl.unl.edu/land-enhancement-resources>

Beekeeping Seed Resources

<https://gpmbl.unl.edu/seeds-and-forage>

Missourians for Monarchs Find an Expert: Locate a Missouri Department of Conservation, Natural Resource Conservation Agency and US Fish and Wildlife representative in your county:

<https://moformonarchs.org/find-an-expert/>

Other Missourians for Monarchs members and their associated programs:

<https://moformonarchs.org/members/>

Missourians for Monarchs planting guides to download:

<https://moformonarchs.org/downloads/>

Webinar Series: Past and future webinars on planting for pollinators and associated issues. <https://monarchjointventure.org/our-work/monarch-webinar-series>

Seeds and Native Shrubs and Trees

Seed a Legacy Pollinator Habitat Program: Free or discounted seeds for landowners with 2 or more acres: https://mostatebeekeepers.org/wp-content/uploads/2019/05/flyer-seed_a_legacy-revjul2018.pdf

Native Missouri Shrubs and Trees

George O. White Nursery, Licking, Mo.

<https://mdc.mo.gov/trees-plants/tree-seedlings/order-seedlings>

A honeybee visits Showy Goldenrod (solidago speciose) during Missourians for Monarchs Collaborative Annual Meeting in Belle, Mo. A native Missouri wildflower that blooms August-November, it provides honey bees with nectar and pollen during Missouri's fall nectar flow.
(Photo by Charlotte Ekker Wiggins)



Johnson County MO Beekeepers Association / JoCoMoBA

Save-the-Date 2020 Beginning Beekeeping Workshop (Part 1 & 2)

Saturday, March 21, (8:00 - 5:00) First Baptist/Apex, Warrensburg, MO

Thursday, March 26, (6:00 - 8:30) Church of Hope, Centerview, MO

More info: cathymisko@earthlink.net or 660-656-3485

(Workshop has also been submitted for Great Plains Master Beekeeping credit)

Rolla Bee Club 2020 Beginning Beekeeping Classes

ROLLA, Mo. -- Rolla Bee Club will host two beginning beekeeping classes Saturday, January 25, 2020 and Saturday, February 14, 2020 from 9 a.m. to 5 p.m. This is same class scheduled on two different dates.



This beginning beekeeping class will cover what participants need to begin beekeeping including equipment, costs, bee sources, setting up hives and helping colonies to get through their first winter. The class is certified by the Great Plains Master Beekeeping Program at University of Nebraska at Lincoln and qualifies for credit towards master beekeeper certification. The certification means participants will be getting the latest scientifically-based information and beekeeping techniques.

Cost is \$75 per person and will include class materials, lunch and refreshments. The class will be held at Doolittle Community Hall, 380 Eisenhower, Rolla, Mo.

Deadline to register for the January 25, 2020 class is Friday, January 10, 2020.

Deadline to register for the February 15, 2020 class is Friday, February 1, 2020.

To register, email rollabees@gmail.com or visit <http://www.rollabeeclub.com/class-sign-up.html>

A Second Year Beekeeping Class is scheduled for Saturday, March 14, 2020 also at Doolittle Community Hall, 380 Eisenhower, Rolla, Mo. from 9 a.m. to 5 p.m.

This class is focused on beekeepers who successfully pulled their bees through their first winter and will focus on basic techniques such as merging colonies, splitting, swarm catching and replacing queens.

Cost is \$75 per person and will include class materials, lunch and refreshments.

Deadline to register for this class is Friday, February 28, 2020.

Rolla Bee Club Inc. is an educational 501©(3) non-profit focused on supporting beginning beekeeping students. The club meets once a month on the 4th Sunday 1-4 p.m. at Brownwood Estates, 1341 California, Rolla, Mo. More information at rollabeeclub.com.



David Draker, left at Rolla Bee Club's beginning beekeeping class January 2019. (Photo by Charlotte Ekker Wiggins)

Eastern Missouri Beekeepers To Host 13th Annual Beekeeping Workshops and Banquet in St. Louis February 7-8, 2020

The Eastern Missouri Beekeepers Association (EMBA) will offer a full day of professional beekeeping instruction and honey bee health research presentations for beginners and experienced beekeepers on Saturday, February 8, 2020, at Maritz in Fenton, Missouri. Registrants are encouraged to attend the Annual EMBA St. Louis Beekeepers Mardi Gras Banquet the evening before the workshop on Friday, February 7, at Maritz.

Leading beekeeping educators, scientists and authors from the University of Minnesota Bee Lab, the University of Georgia Honey Bee Program, Bee Culture and Michigan State University will be among the visiting faculty leading the workshops.

Faculty will include Jennifer A. Berry, Apicultural Research Professional and Lab Manager, University of Georgia Honey Bee Program, Kim Flottum, author and Senior Editor of Bee Culture magazine, members of the University of Minnesota Bee Lab including Gary Reuter, science manager and beekeeping instructor, Becky Masterman, PhD., Bee Lab Team Leader, Bridget Mendel Lee, Bee Squad Instructor, and Ana Heck, Michigan State University, Department of Entomology.

The Experienced Beekeepers course will be tailored towards hobbyist, sideline, and commercial beekeepers, and will place special emphasis on hive management and improving honey bee health.

The Beginner Beekeeping course is intended for novice beekeepers and persons with no prior beekeeping experience. The class will cover all aspects of basic beekeeping to

prepare students to start keeping bees in 2020.

Tuition for the workshop is \$85 per person if registered by January 19, 2019. Tuition is \$95 per person for those registering on or after January 20. Banquet registration costs \$30. Banquet registration closes February 2nd.

Continental breakfast, lunch and refreshments are included with the workshop. Registration packets will include course materials, an authoritative reference book, beekeeping periodicals, and equipment catalogs.

The Friday evening banquet features New Orleans style food and music, a cash bar, door prizes, including nucs, queens and beekeeping equipment, and a keynote speaker. The cost of the banquet is in addition to the workshop. For more information, visit www.easternmobeekkeepers.com

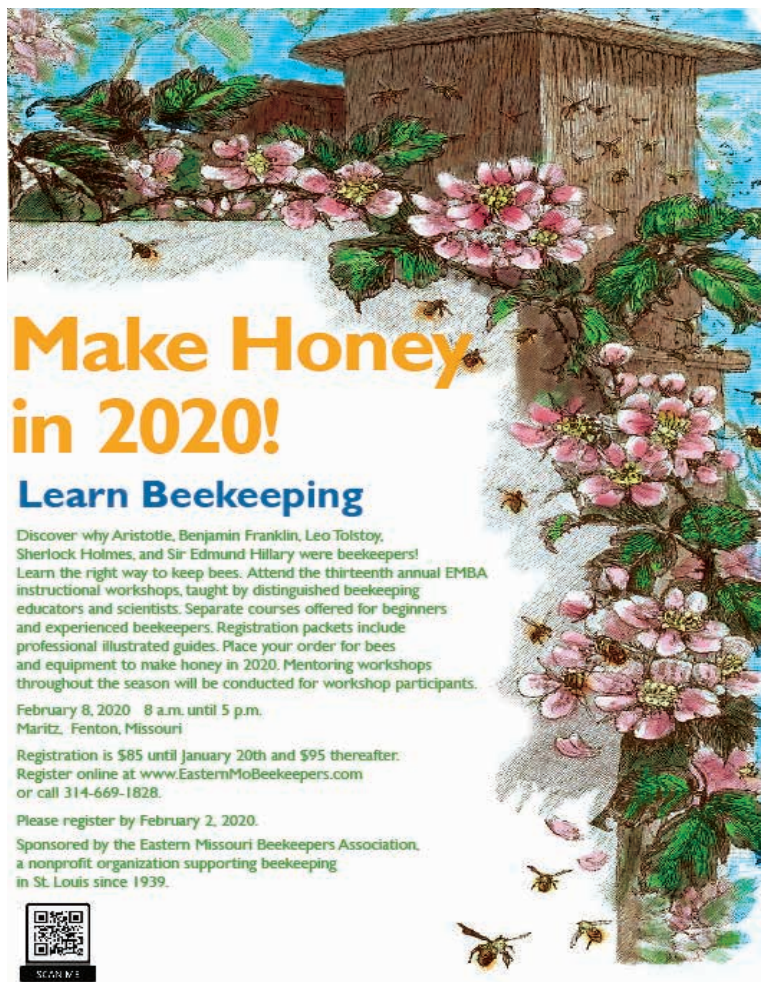
Equipment vendors include representatives of Dadant & Sons, Isabees, and others.

EMBA supports beekeepers with a broad program of cooperative procurement and educational events throughout the year.

Members may obtain complete beginner's equipment kits, nucleus bee colonies, and queens for delivery in the spring. The Club also sponsors open hive instructional workshops and guided colony health monitoring, during the season, at the Club's teaching apiary in Creve Coeur, Missouri.

Registration is available online at www.easternmobeekkeepers.com

More information is available by email to info@easternmobeekkeepers.com or calling 314-669-1828.



**Make Honey
in 2020!**

Learn Beekeeping


Discover why Aristotle, Benjamin Franklin, Leo Tolstoy, Sherlock Holmes, and Sir Edmund Hillary were beekeepers! Learn the right way to keep bees. Attend the thirteenth annual EMBA instructional workshops, taught by distinguished beekeeping educators and scientists. Separate courses offered for beginners and experienced beekeepers. Registration packets include professional illustrated guides. Place your order for bees and equipment to make honey in 2020. Mentoring workshops throughout the season will be conducted for workshop participants.

February 8, 2020 8 a.m. until 5 p.m.
Maritz, Fenton, Missouri

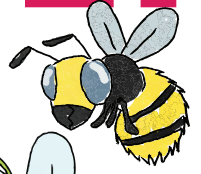
Registration is \$85 until January 20th and \$95 thereafter.
Register online at www.EasternMoBeekeepers.com
or call 314-669-1828.

Please register by February 2, 2020.

Sponsored by the Eastern Missouri Beekeepers Association,
a nonprofit organization supporting beekeeping
in St. Louis since 1939.



SAVE THE DATE!



2nd Annual Spring Field Day

May 2, 2020

Arcadia, Missouri ~ Iron County



If you're a new beekeeper wanting to build your knowledge and skill in the craft of keeping bees, you'll want to put this on your calendar! The second annual MSBA Spring Field Day is scheduled for May 2, 2020 at the Arcadia Academy in Ironton, Missouri.

Building on the success of last year's field day, there will be a variety of activities and demonstrations of interest to anyone in their first few years of beekeeping. Participants will have the opportunity to see and help inspect numerous honey bee colonies in different stages of development and status, all under the watchful eye of an experienced beekeeper.

We will know more about all to be offered as we get closer to the event. As it looks now, there will be opportunities for participants in the Great Plains Master Beekeeping program to earn Apprentice Level Credits.

Mark your calendars and be looking for more information in the March MSBA newsletter and the MSBA website.

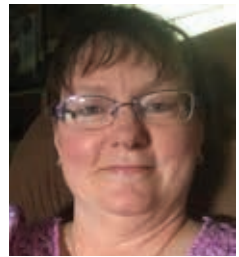
~ Gregg Hitchings
gregghitchings@gmail.com



Beekeepers get a chance to sharpen their skills at MSBA's next Spring Field Day scheduled for May 2

Note from the Editor

- Jeania Schmalhorst, *Communications & Marketing Chair, Newsletter Editor*



Happy New Years!

The new year brings new beginnings, new adventures and new...well...everything. This will be my first full year as the newsletter editor and I have made a few 'new' changes to the design and other aspects. I hope you like the new look.

Articles, articles, articles! Need those articles, they can be anything from a member spotlight, a club event, a funny story to a recipe.

Photos! We need bee related photos too! If you have a nice photo that you would like to see published in the newsletter we can accomodate that. One of the new membership benefits will be showcasing our member's

photos of different beekeeping themes. If your photo is used you will get full credit; name, location, bee business name. Your photo may be used to fill up space or in conjunction with an article. (See below for more details)

I want to thank Susan Medyn for permission to use her brood photo for the newsletter. It's is very fitting for our little newsletter.

May the New Year bring you many beekeeping adventures and great success.

:-) Peace out.

To submit an article, recipe, photo or if you have a suggestion, email them to MSBAnewsletter@gmail.com

WANTED: BEEKEEPING RELATED PHOTOS FOR USE IN MSBA'S MARKETING MATERIAL

Do you have a great photo of your beehives, equipment or apiary? As an active member of the Missouri State Beekeepers Association you can submit your photos (with full credit given) for use in any communications/marketing material. List of shots wanted are listed below, but not limited. Photos will be used in the Newsletter, Event Flyer's, Email Campaigns, Facebook Announcements, etc. When submitting photos please provide your name and location (city, town, or county) to make sure credit is given properly. To submit photos or for more information email MSBAnewsletter@gmail.com

- | | |
|----------------------|-----------------------------|
| Queen Spotting | Varroa Mite |
| Honey Bee Closeup | Small Hive Beetles |
| Beekeeping Equipment | Honeycomb |
| Beehives | Honey Jars |
| Bee Yard | Extracting Processes |
| Bee on Flower | Keeper looking into hives |
| Snow on Bee Hives | Any other shots of interest |
| Bee in Flight | |



Photos should be of good quality, not blurry/fuzzy, no less than 150 dpi (for best printing quality use 300 dpi). MSBA reserves the right to reject photos not of printable quality or if subject matter is not appropriate or beekeeping related.

History Tidbit - Clayton Lee, MSBA Past President



Seventh Semi-Annual Convention – Independence, MO November 17-19, 1892

In March 2020, we will be holding our conference in Lees Summit, MO. It is hard to believe that 128 years earlier we (early members – lol!) were meeting in nearby Independence, MO...

A severe snowstorm just prior to the start of the convention was a discouraging note. This hurt the first day attendance but didn't stop the members from talking bees! President G.P. Morton kicked the convention open at 1:30 pm. Furnishing an exhibit and honey for the World's Fair was the first topic of discussion. Seems the spring and summer months provided less than favorable conditions for honey production. No mention on finding an ample supply for the World's Fair.

Other first day topics included: Amount of foundation used for section (comb) honey, use of bee houses, educating people to be apiarists, apiarist exhibits at conventions, and educating farmer on bees. There discussions could be minutes from a current day meeting. Nice reading!

Mrs. J. M. Null was a key discussion leader on several topics throughout the convention. One that caught my attention was "How far do bees fly for Honey." Interesting discussion including one reference to bee lining.

During closing discussions, the association thought it would be best to hold only one meeting per year. They settled on the fall of 1893 in Pertle Springs, MO (near Warrensburg).

Interested in reading more about the convention? Follow the link below.



<https://books.google.com/books?id=Df3yHte8SloC&pg=PA1&lpg=PA1&q=progressive+beekeeper+unionville+missouri&source=bl&ots=1Zyj4liwc&sig=ACfU3U2yqH-NHUrOpXxaYd2VLLgPi0TmUA&hl=en&sa=X&ved=2a-hUKEwjOg6C1k67mAhUEPK0KHbXND3IQ6AEwA-HoECAkQAQ#v=onepage&q=progressive%2520beekeeper%2520unionville%2520missouri&f=false>

Want to get the word out about your local honey?

The **Missouri State Beekeepers Association** can now help you do just that!

The **MSBA** has created a list, and a map, where **MSBA members** can post honey and honey products for sale to help people in your area find your 'local honey' via the MSBA website (www.mostatebeekeepers.org).

If you would like to get on the **Local Honey** list go to <http://mostatebeekeepers.org/local-honey-form/> and fill out the form to apply. Once your form is submitted, we will verify your membership and add you to the list and map. We will be sharing the link to the local honey map on social media and other outlets and suggest all members do the same so we all can help bring local honey to the public!

You will be asked multiple questions and will need to 'educate' your customers. Please be patient and understanding at the same time and remember you are representing your association when working with the public. Just think back to the time when you were a new 'bee'.

If you have any questions please contact **Kyle Day** at westcentraldir@mostatebeekeepers.org

MSBA Benefits Committee Just another great benefit for the members of the MSBA



Know Your Board

The Missouri State Beekeepers Association is managed by an all volunteer force of passionate beekeepers from across the state. The diverse experiences and knowledge is evident when each work together within the Executive Committee and Board Members as a team. Together they work to bring the latest and greatest information out there to our MSBA membership.

To contact a committee/board member go to mostatebeekeepers.org/executive-committee/

Executive Committee* and Board Members

President *	Cory Stevens
Vice President *	Randy Ewart
Past President *	Clayton Lee
Secretary* (<i>interim</i>)	Kyle Day
Treasurer *	Wes Johnston
Membership Chair	Wanda Johnston
Comm/Marketing Chair and Newsletter Editor	Jeania Schmalhorst
Programs Chair	Bruce Snavely
State Fair Coordinator	Erin Mullins
Queen/Ambassador Chair	Amy Giffen

Regional Directors

East Central	Mike Wagner
Northeast	Bob Brammer
Northwest	Roger Nichols
Southeast	Jeff Mayfield
Southwest	Maxwell Helm
West Central	Kyle Day

The Missouri State Beekeepers Association's Liaisons and Ambassador

MSBA Partnership Liaison
Charlotte Ekker Wiggins

MSBA Legislative Liaison and Heartland Beekeeping Partnership
Cathy Misko

Missouri Task Force Great Plains Master Beekeeping Program
Randy Ewart,
Gregg Hitchings,
Charlotte Ekker Wiggins

Missouri Honey Youth Ambassador
Hannah Gebhardt



Executive Committee and Board members (left to right)
(Front row) Cory Stevens, Jeania Schmalhorst, Bob Brammer, Erin Mullins, Hannah Gebhardt;
(Second Row) Bruce Snavely, Randy Ewart, Clayton Lee, Kyle Day, Wanda Johnston, Charlotte Wiggins, Amy Giffen;
(Back Row) Wes Johnston and Jeff Mayfield.
(not present) Cathy Misko, Mike Wagner, Maxwell Helm, Rogers Nichols and Gregg Hitchings



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All stores are open by appointment most days.

Advertising Opportunity

The Missouri State Beekeepers Association wants to give our members the best information and resources available for their beekeeping operations. This includes access to equipment and supplies. Starting in January 2020 you will be able to advertise in the MSBA Newsletter and reach members all across the state. With four ad sizes and very reasonable rates this will fit anyone's advertising budget.

Sizes and rates available

Full page.....	(8.5" x 10")	\$100
Half page	(8.5" x 5")	\$60
Quarter page	(4.25" x 5")	\$35
Thumbnail	(2.5" square)	\$20

Artwork specifications

Full color - 300 dpi
Saved as Print Quality/High Resolution
Outlined fonts and embedded images.

File formats acceptable;

PDF, PNG, JPG, TIFF, Adobe CC

Advertising that is not beekeeping related will not be allowed. Publication dates are within the first 15 days of issue month. Ads must be paid for before the issue month. Listed prices are per issue. Receive a 15% discount on half page or full page ad size when you prepay for all 6 issues. There are 6 issues per year; January, March, May, July, September; and November. A contract is available, if needed.

**15% DISCOUNT
ON HALF PAGE OR
FULL PAGE AD SIZES
AVAILABLE!**

Full Page
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\$100.00

Quarter Page
4.25" w X 5" h
\$35.00

Half Page
8.5" w X 5" h
\$60.00

Thumbnail
2.5" square
\$20.00

AS AN ADDED BENEFIT
*your paid ad will also be posted
on the MSBA's website!*

For more information please contact the Newsletter Editor at MSBAnewsletter@gmail.com
or send a message through our website to the Communication & Marketing Chair at
<http://mostatebeekeepers.org/executive-committee/>



Missouri State Beekeepers Association 2020 Spring Conference

March 13-14, 2020

Metropolitan Community College-Longview
500 SW Longview Road, (Education Building)
Lee's Summit, MO 64081

Online Conference registration at www.mostatebeekeepers.org and you will earn two (2) FREE tickets for the prize drawing! You can also pay your membership dues online.

Regular mail registration [*Please print your name as you prefer it listed on name tag*]:

First Name: Last Name:
Street: City: State: Zip Code:
Email: Telephone: ()

All contact information provided above is strictly used for the 2020 Spring Conference use only

Conference Cost: \$ 60.00**

**Please note this fee does not include membership or meals. Each MSBA Member who registers online through PayPal® will receive a \$10.00 discount for each member they register. The discount will be refunded back through PayPal® once membership is verified.

Individual (Friday & Saturday)** \$ 60.00 X =
Individual (☐ Friday or ☐ Saturday Only)** \$ 35.00 X =

Meals options: (Optional lunches are catered onsite and the banquet is offsite)

A. Friday noon meal/lunch \$ 12.00 X =
B. Friday evening banquet \$ 25.00 X =

Banquet is offsite @ Lakewood Oaks Country Club: (12.2 miles / 16 minutes travel time) 651 NE Saint Andrews Circle, Lee's Summit, MO 64064

C. Saturday noon meal/lunch \$ 12.00 X =

Please Note: All Registrations received on or after February 28, 2020 will be accepted at the same price, but meal purchases will not be guaranteed once meal's tabulation is submitted to the vendor.

Honey Queen/Ambassador Fund Donation (\$10.00 Suggested):

TOTAL AMOUNT ENCLOSED: \$

If you have any questions, please email Bruce Snavely, Program Chairman: brucesnavely@hotmail.com

If you cannot register online, please make checks payable to:

Missouri State Beekeepers Association

Send payment along with your completed registration form to:

Clayton Lee, 90 East Pope Lane, Smithville, Missouri 64089

Lodging (Lee Summit, Missouri): (Several hotels in Lee's Summit area, here are some with special pricing until 02/13/2020 for MSBA)

Mention "Missouri State Beekeepers for group discount"

- ★ **Comfort Inn** – (6.1 miles away) \$ 79.00 (30 rooms)
963 SE Oldham Parkway, Lee's Summit, MO (816) 524-8863
- ★ **Hampton Inn** – (6.8 miles away) \$ 96.00 (30 rooms)
1751 NE Douglas Street, Lee's Summit, MO, (660) 269-9700
- ★ **Holiday Inn Express** – (5.1 miles away) \$104.00 (20 rooms)
1201 NW Innovation Parkway, Lee's Summit, MO (816) 600-2405

MISSOURI STATE BEEKEEPERS ASSOCIATION 2020 SPRING CONFERENCE MARCH 13-14TH

METROPOLITAN COMMUNITY COLLEGE - LONGVIEW, LEE'S SUMMIT, MISSOURI

Keynote Speakers & Presentation Titles



Tammy Horn Potter
*Launching the Kentucky Certified
Honey Program*

*Best Management Practices for
Hive Health*

Establishing Pollinator Habitat

Tammy Horn Potter started helping her grandfather with his beehives in 1997. In 2006-2010, she worked during off seasons with Big Island Queens in Hawaii. In 2008, she started Coal Country Beeworks, working with surface mine companies to establish pollinator habitat and apiaries in Eastern Kentucky. In 2014, she became the KY State Apiarist, helping shape the KY Department of Agriculture Pollinator Protection Plan. From 2015-2018, she has coordinated the USDA Honey Bee Health Survey in Kentucky. She also serves on the boards of Eastern Apiculture Society, Project Apis M, Honey Bee Health Coalition, and Green Forests Work. She is the author of the following books: *Bees in America: How the Honey Bee Shaped a Nation* (2005); *Beeconomy: What Women and Bees teach us about Local Trade and Global Markets* (2012); and *Flower Power: Establishing Pollinator Habitat* (2019).



Grant Gillard
*Seven Habits of Highly Successful
Beekeepers*

*Taking your Beekeeping to the
Next Level*

Grant F. C. Gillard began keeping bees on the family farm in Glenville, Minnesota, in 1981 after graduating from Iowa State

University with a degree in agriculture. While active in his local church, his congregation convinced Grant he'd make a better pastor than farmer.

He graduated from Fuller Theological Seminary in Pasadena, California, with a Master's of Divinity degree in 1987. He later obtained a Doctor of Ministry degree from Aquinas Institute of Theology in St. Louis, Missouri, in 2000.

He spent twenty-five years in Jackson, Missouri, combining his passion for beekeeping with his pastoral duties at the First Presbyterian Church. In 2018, Grant moved his beehives to Holden, Missouri, where he currently operates around 80 hives and serves as pastor of the New Horizon Presbyterian Church in Odessa, Missouri. He produces honey, queens and nucs, preferring to catch feral swarms for his genetic base. He has also published several books on the topics of beekeeping.

Grant is past president of the Missouri State Beekeepers Association and is a frequent regional and national conference speaker. He received the Missouri State Beekeeper of the Year Award in 2012. He founded the Jackson Area Beekeepers Association and teaches beginning beekeeping classes around the state.



Elizabeth Walsh
Integrated Pest Management Today

Pesticide Impact on Queen Development

Elizabeth Walsh (Liz) is originally from rural Wisconsin where she got her undergraduate degree at Ripon College and majored in Biology and English. Liz has been a beekeeper since she was a

young high school student and is committed to researching applied questions about honey bee health. Liz graduated in December of 2019 with her Ph.D. in Entomology at Texas A&M University and her dissertation research primarily focused on in-hive pesticides, such as active ingredients in miticides, and how they impact queen health, physiology, and behavior.



Jerry Brown
Honey Issues in the USA

Jerry Brown, is a third generation Commercial Beekeeper, originally from Haddam, KS.

- Largest beekeeper in Kansas from 1990-2013 operating as many as 4,000 hives

- California Almond pollination from 1993-2013 with as many as 10,000 hives
- Executive Director American Honey Producers Association from 2004-2013
- President of Kansas Honey Producers Association from 1991-2000
- Founding partner of the Committee for the Promotion of Honey and Health 2008
- Founding Officer of the Pollination Stewardship Committee 2012-2013
- Publisher of 3 books about the health Benefits of honey, *The Hibernation Diet* (2006), *The Honey Revolution* (2008), and *The Honey Revolution Abridged* (2010)
- National Honey Board Alternate/Nominations Committee Member 1993-2007
- Haddam, Kansas City Council / Mayor for 21 years
- Church Youth Leader 10+ years. Church Contemporary Music Worship Leader 20+ years
- JayHusker Racing Association, President, 2008-2010

Current endeavor with his wife, Debbie Brown, is ownership of RevHoney, Inc, a creative honey products company whose primary product is with honey beverages. RevHoney opened its 2nd beverage bottling facility and headquarters to Bolivar, Missouri in August 2018.



DAY 1 FRIDAY, MARCH 13TH

Metropolitan Community College – Longview Campus, Education Building
500 SW Longview Road • Lee's Summit, Missouri

7:20	Registration Begins.....Education Center Foyer
7:30	Vendor Hall OpensEducation Center Foyer

Morning Schedule

8:30	Conference Opens: Welcome and Opening Comments - Cory Stevens MSBA President Invocation
8:45 - 9:30	Introduction, Dr Tammy Horn Potter , Kentucky State Apiarist & Author Presentation: "Best Management Practice for Hive Health"
9:30 - 9:40	Q & A with Tammy Potter
	10 Minute Restroom Break
9:50 - 10:35	Introduction, Grant Gillard , Missouri Beekeeper Presentation: "Seven Habits of Highly Successful Beekeepers"
10:35 - 10:45	Q & A with Grant Gillard
10:45 - 11:30	TALK TIME - Networking and Visit Vendor Booths
11:30 - 12:30	Lunch Buffet, Grandma's Catering (Requires a lunch ticket)

Afternoon Schedule

12:30 - 1:15	Introduction, Elizabeth Walsh , Beekeeper in PhD program Presentation: "Integrated Pest Management Today"
1:15 - 1:25	Q & A with Elizabeth Walsh
1:25 - 1:55	TALK TIME - Networking and Visit Vendor Booths

Breakout Classes - Choose one (BU105 & BU106 are rooms next door in the Business Building; EC is Education Center)

2:00 - 3:15

Option 1	BU105 - Queen Rearing Review - Cory Stevens - Queen Breeder and EAS Master Beekeeper
Option 2	BU107 - Bee Stings - Dr. Michael Brown, MD
Option 3	EC - My Story - Rick Drake - Commerical Beekeeper

3:45 End of Day 1 - Please exit building by 4pm

5:30 - 7:30 Dinner Requires a Dinner Ticket
Lakewood Oak Country Club, 651 NE St. Andrews Circle Lee's Summit

Revision Date January 15, 2020
Agenda is subject to slight changes prior to the conference



DAY 2 SATURDAY, MARCH 14TH

Metropolitan Community College – Longview Campus, Education Building
500 SW Longview Road • Lee's Summit, Missouri

7:20	Registration Begins.....Education Center Foyer
7:30	Vendor Hall OpensEducation Center Foyer

Morning Schedule

8:00	Welcome - Cory Stevens MSBA President
8:10 - 8:55	Introduction, Grant Gillard , Missouri Beekeeper Presentation: "Taking Your Beekeeping to the Next Level"
8:55 - 9:05	Q & A with Grant Gillard
	10 Minute Restroom Break
9:15 - 9:50	Introduction, Jerry Brown , Former Exec Director American Honey Producers Assoc. Presentation: "Honey Issues in the USA"
9:50 - 10:00	Q & A with Jerry Brown
10:00 - 10:30	TALK TIME - Networking and Visit Vendor Booths
10:30 - 11:15	Introduction, Elizabeth Walsh , Beekeeper in PhD program Presentation: "Pesticide Impact on Queen Development"
11:15 - 11:20	Q & A with Elizabeth Walsh
11:45 - 12:30	Lunch Buffet, Grandma's Catering (Requires a lunch ticket)

Afternoon Schedule

12:30 - 1:15	Introduction, Dr Tammy Horn Potter , Kentucky State Apiarist & Author Presentation: "Launching Kentucky's Certified Honey Program"
1:15 - 1:25	Q & A with Tammy Potter
1:25 - 1:55	TALK TIME - Networking and Visit Vendor Booths

Breakout Classes - Choose one (BU105 & BU106 are rooms next door in the Business Building; EC is Education Center)

2:00 - 3:15

Option 1	BU105 - Great Plains Master Beekeeping Program Overview (GPMB Credit) - Gregg Hitchings - Florida Master Beekeeper
Option 2	BU107 - Let's go to the State Fair - <i>Speaker To Be Announced</i>
Option 3	EC - Success for Year 2 & 3 - Grant Gillard - Missouri Beekeeper

Revision Date January 15, 2020
Agenda is subject to slight changes prior to the conference