



# BEE NEWS & VIEWS

The Mississippi Beekeepers Association Newsletter

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September-October 2014

## Queen Rearing Workshop

*By Jeff Harris*

I conducted an all-day workshop about queen rearing on Saturday, September 13 in Starkville, MS. Although there are many folks interested in learning how to raise queens, I limited this first workshop to 15 individuals. This left out many folks who want to learn, but I needed a trial run to figure out the best ways of teaching grafting techniques to a group of people. I will likely conduct 1-2 workshops on queen rearing in 2015, and I will announce them well in advance to give everyone who would like to participate a chance to register and attend.

Most of the attendees were from the Winona area. They came as a group to the Clay Lyle Building on the Campus of Mississippi State University. I had assembled a couple of cell builders at the venue, and a microscope was set up for observing eggs and larvae in combs. Lectures focused on various methods for management of cell builders, the Cloake board method of queen rearing, and the nutritional requirements needed to produce queens. Time was set aside to allow each participant to try grafting female larvae from worker brood cells on a comb into artificial queen cups.

The group was especially thankful to Mr. Andy White. He attended the workshop as a beekeeper, but he graciously paid the lunch expense for all attendees using his expense account through his employer, Bayer CropScience. This gesture kept all of us together during lunch, and we had a good time talking bees and beekeeping at Oby's Cajun Dining.

I also outlined some non-grafting techniques that are especially good for people who only need to raise a few queens. These were the Miller, Alley and Hopkins methods. The session ended with a description of the instrumental insemination of queens as a breeding method.

## The EPA Tours MS Delta

*By Jeff Harris*

The Environmental Protection Agency (EPA) sent a group of officials to the Mississippi Delta during a 3-day crop and agricultural tour in mid-September. The event was hosted by the Mississippi Department of Agriculture and the Mississippi Farm Bureau and others. Participants included representatives of the MSU Extension Service, MSU scientists focused on agricultural research, agricultural aviators that apply agro-chemicals to the large farms of the Delta, and several farmers of soybeans, cotton, rice and corn, and beekeepers.

The tour began in Memphis and moved through Tunica and various farms as we descended southward through the Delta. The trip took 2.5 days. Eventually we moved into the Stoneville area and visited the research facilities at the Delta Research and Extension Center. We were also hosted by the Delta Council where we met with our state agricultural commissioner, Cynthia Hyde-Smith. The tour ended in Starkville at the Clay Lyle Entomology Building where beekeepers from the MBA were asked questions by the EPA officials. Finally, the EPA group met various administrators from Mississippi State University before going to dinner.

The primary goals of the tour were to (1) introduce the EPA officials to the basics of large-scale crop production in the MS Delta, (2) expose them to pest management issues related to each of the major cropping systems (soybeans, cotton, rice, etc.) and (3) discuss the Mississippi Honey Bee Stewardship Program that was developed to help beekeepers and farmers to work together to afford the best protection for honey bees in agricultural environments. The event was intended to give the EPA officials hands-on experience with farming in our state that could

help them better understand various environmental issues that confront us.

A highlight for me occurred when the group visited an apiary in the Tunica apiary to meet a farmer-beekeeper pair who participate in the stewardship program. The two men discussed the practices and communication in their relationship that helps protect the honey bees from off-target spraying of insecticides and other agricultural chemicals. The EPA officials asked many questions about beekeeping and the ways that the two men reduce the risk of insecticide exposure to bees. I found this stop to be a very positive experience for everyone involved. The pair were a very good example of people working together to protect bees: the beekeeper yielded more than 100 lbs. honey per colony and kept his bees healthy while allowing the farmer to manage pests in his soybean fields when necessary.

## **MBA and the MS Honey Bee Stewardship Program**

*By Jeff Harris*

The MBA Executive Board endorsed the MS Honey Bee Stewardship Program in late summer 2013 despite it not being a perfect plan. The MBA also agreed that discussions and modifications may need to occur through time in order to satisfy all parties. Although not a perfect protection plan, the MS Honey Bee Stewardship Program formalized behaviors by farmers and beekeepers that go a long way to providing protection against exposure to insecticides for honey bees kept in the MS Delta.

More recently, commercial beekeepers and members of the MBA Executive Committee have publicly expressed a much more negative attitude about the Stewardship Plan that I found somewhat disconcerting. My fear is that if MBA appears to have changed its official endorsement of the Stewardship Plan, that this will be viewed by the farmers and other parties that came to the table as some sort of recapitulation.

If farmers begin to distrust the endorsement of the plan because beekeepers seem unsupportive, then there really is no plan. The frustration of dealing with beekeepers that no longer support the plan is

likely to lead to farmers no longer wanting to interact with beekeepers, and it may be possible that beekeepers will be asked to move their bees elsewhere. I hope this does not occur, but it seems more than possible.

Here are some of the objections that I have heard and would like to address. Of course, I am not MBA – I only support them and provide my two cents when necessary. There certainly are other opinions, but I thought it my professional duty to answer some of the misgivings that I have heard.

The following is a list of some of the things that I have heard about the Stewardship Program. Each is followed by my response.

- (1) Beekeepers and farmers in the MS Delta already do things to protect honey bees; therefore, there is no need to outline these behaviors in a program like the MS Honey Bee stewardship Program.

Response: Yes, many beekeepers and farmers do things to help protect honey bees. Certainly, the best farmer-beekeeper pairs do not need any further help. However, there are several commercial beekeepers and farmers that could improve the situation for bees. For example, I have seen apiaries within the Delta that were placed too close to field margins and in a manner that left bees exposed to drift of insecticides from aerial applicators. There is always room for improvement. Additionally, the behaviors outlined in the MS Honey Bee Stewardship Program provide a great starting point for any beekeepers coming to the Delta for the first time.

- (2) The existence of state-wide protection plans will be used by the EPA to somehow supersede label restrictions that already exist for insecticides. Usually, this complaint is pre-empted by the notion that EPA is currently not doing its job at enforcing label restrictions. For example, growers of indeterminate soybeans and cotton apply insecticides for pest management while these crops are in bloom.

Response: The current insecticide labels are cumbersome, but all of them provide exemptions for all farmers that reach an economic threshold for pest insects when the plant is blooming. Application of insecticides is permitted under these conditions because failure to treat will likely lead to significant economic loss to the farmer. So, when farmers spray during the bloom, they are doing so to save their crops, and the EPA is not warranted to intervene. If the EPA were to question an application, the farmers, Ag consultants, and others involved would need to provide evidence that the application was necessary.

Some beekeepers do not believe that these farmers really need to spray and suggest that they are spraying prophylactically but without cause. I have spoken to various farmers, and this idea seems unfounded. The large family farms of the Delta (tens of thousands of acres per family) are constantly scouted by Ag consultants whose job it is to help farmers manage their pests. When the Ag consultant says it is necessary to control a pest, the farmers respond and do so. Additionally, the profit margins per acre are so slim, that it is not economically beneficial to apply insecticides without some kind of data that suggests the chemicals are needed to reduce pest populations.

A common retort to these arguments is that the labels need to be changed to provide that no insecticide should be sprayed when any agricultural crop is in bloom. The current language is ambiguous and says something like insecticides should not be sprayed "when pollinators are actively visiting flowers in the field." I know this is not the exact wording, but it is close. I agree that this language is fairly poor and not very helpful.

However, regardless of how the wording may be changed, it is very unlikely that the exemption for spraying when pests reach an economical threshold in a blooming field will be removed. EPA is simply not going to tie the hands of farmers of billion-dollar crops. My view of the EPA is that they must provide the best environmental protection possible without

unduly diminishing the ability of farmers to grow crops.

- (3) Most of the issues related to exposure of honey bees and other pollinators to insecticides in the Delta would be eliminated if EPA would require all insecticide applications to be made only at night.

Response: No doubt that such a requirement would provide the maximum protection for honey bees and other pollinators. However, such a change in labeling is simply pie in the sky and not very rational. There is simply no way that EPA will ever mandate night spraying because of the increased costs of such a change to the farmers and applicators. More importantly, there is no way that EPA will mandate night spraying because of the bigger risk to aerial applicators when flying at night. Human safety will always trump safety for honey bees.

Some argue that night time spraying does not need to occur via plane, it could occur via lighted ground rigs. Certainly, lighted ground rigs would be an option for small fields. However, most of the farms in the Delta are thousands of acres, and ground application is not practical and would require too much time for an application. The planes are used to quickly squelch a surging pest population with a quick aerial application over large areas. Another problem for night spraying in the Delta is the occurrence of heat inversions that create moist fogs that can carry droplets of insecticide well beyond the boundaries of a targeted field.

- (4) This last area of my concern does not involve EPA directly. I have heard commercial beekeepers say that the Varroa mite is not a major issue. We know how to control them, and our biggest problem in beekeeping is exposure to insecticides.

These statements are counter to my own personal experience in MS. I have seen hundreds of colonies of bees in MS dying from mites. Most of these colonies were located away from agriculture, and I contend

the Varroa mites are universally the biggest problem faced by most beekeepers. I do not diminish the problems of exposure to insecticides for honey bees, but for most beekeepers, the mites are a constant pressure that kill colonies.

Ultimately, the success of the MS Honey Bee Stewardship Program depends on the involvement of beekeepers. Regardless of MBA's position, my goal as your apiculture extension entomologist is to promote the programs that help bees and beekeepers. I feel that voluntary participation in the program by beekeepers is good for honey bees in MS. Over the next year I will visit each beekeeper group, present the stewardship program, and discuss any issues of concern with beekeepers throughout our state.

## **Bugfest at the Crosby Arboretum**

*By Jeff Harris*

The Mississippi State Extension Service operates the Crosby Arboretum, which is located along interstate 59 near Purvis, MS. The arboretum features hiking trails that wind through pitcher plant bogs, longleaf pine savannahs, piney woods and bottomland hardwoods. There are also small streams and a lake on the property, and a large covered pavilion sits on one edge of the lake. It is a wonderful venue for teaching kids about nature.

To that end, the MSU Extension Service has sponsored a two-day Bugfest during the early autumn of each year over the last decade or so. The primary goal is to expose kids and their parents to insects and various aspects of entomology with the hope of creating excitement in them for insects and all that insects do in nature (both good and bad from a human point of view).

Dr. John Guyton (MSU Extension, Starkville) and Pat Drachett (Director of the Arboretum) were the primary organizers of Bugfest. The planned activities included guided hikes during which kids learned the different methods for collecting insects. We also collected insects at lights during the night. Participants also rotated through booths and other

manned stations where different aspects of entomology were exhibited. One station had live insects, spiders and arthropods. Another involved races of Madagascar Hissing Cockroaches down a racetrack specially designed for the contests.

Another station was manned by volunteer children who are already expert in the identification and pinning of insects. They helped participants identify insects that were captured during hikes and collections at the bug-lights at night. The same kids helped properly pin the collected insects for the kids that were not experienced in collecting insects. Most of the kid volunteer helpers were past participants from MSU's summer Bug Camps, and it was during these camps that they gained their knowledge of entomology.

This was my first year as an educator at Bugfest. I was teamed with Lois Connington (Dr. Guyton's associate). Lois manned a booth in which she primed participants about the basic biology of honey bees. She had an observation hive with free-flying bees that attracted students to her booth, and once there she taught them about the basic life history of bees, various aspects of beekeeping, and the importance of bee pollination to agriculture and natural ecosystems.

I manned a station located on the periphery of the arboretum away from the primary meeting areas. This was done because I had brought two colonies of bees from Starkville, hive extracting equipment and other equipment important to beekeeping. I opened the colonies of bees away from the kids and their parents that filed through my station; however, I carried combs with adhering bees close to the groups of people as I talked about bees. I let the kids taste honey from the combs, and I showed them how honey is extracted. Many of the kids also held the brood combs with adhering bees. My goals were simple: explain the importance of bees to kids while giving them a "neat-o" experience.

I do not know the final tally of participants, but at least 2,300 people filed through the different stations at Bugfest. I felt very fortunate in that only 1 person was stung during the event. She was probably 12-13 years old, and her response to the sting was very slight (I barely knew she had been stung). She was stung because she had accidentally gotten some honey on her bicep. A bee was attracted to her arm,

but before she realized it was there, her shirt sleeve pinned the bee to her arm (causing the bee to react and sting).

## **Beginning Beekeeping Workshop in Pike County**

*By Jeff Harris*

Michael Scheel, members of the Southwest Mississippi Beekeeping Association, and personnel from the Franklin and Pike County Extension Offices helped me conduct a beginner's workshop at the Pike County Fairgrounds on Saturday, October 4. About 25 folks participated, and the cold weather may have scared many away that day (not to mention Mississippi State and Ole Miss Football games).

The workshop was formatted like a previous workshop in Meadville this year. The SW Beekeepers wanted to repeat a beginner's workshop in the fall so that people wishing to start beekeeping in the next spring could learn the things necessary to get started before they actually bought bees.

Michael introduced everyone to basic beekeeping equipment and jargon. I followed with presentations that emphasized managing pests and diseases, managing colony nutrition and ways to get started in beekeeping. A wonderful lunch followed with meat entrées grilled by club members and desserts (many made with honey) baked or made by other club members.

After lunch, we visited a colonies of bees that had been brought to the fairgrounds. We split participants into groups and learned how to work bees. The weather was beautiful but cold; regardless, participants seemed to have a good time. I did see a couple of stings, but generally, the bees were well behaved. This was a fun group, and I look forward to visiting them again next year.

## **Honey and Wax Contest at MS State Fair**

*By Jeff Harris*

This is the third year in which I have judged the honey and wax contest at the Mississippi State Fair in Jackson, MS. As usual, the Central Mississippi Beekeepers Association manned a booth in which they sold honey and various hive products. Club

members also answered questions about bees and beekeeping to all that asked. Additionally, club members received and cataloged entries for the honey and wax contest. This is important because they code all entries with a number to conceal the identity of the participants from the judge (yours truly). I greatly appreciate CMBA for manning the booth and taking care of the entries. It makes my job much easier.

For those who do not know, there is a set of judging standards for all categories of honey and wax that can be entered in the contest. You can download a PDF copy of these standards by going to the Resources heading at our MSU apiculture web site ([blogs.msucare.com/honeybees/](http://blogs.msucare.com/honeybees/)).

Judging the contest is usually an all-day event. It takes an average of 8 hours to evaluate all of the entries. I like to return the score cards to participants so that they can see how to improve for the next contest. This practice has paid because the quality of entries has improved dramatically during the last couple of years. I thank everyone who competed, and I encourage everyone to try again next year. All winners are listed below.

### Extracted Honey, Light

- 1<sup>st</sup> – Nicholas Cape
- 2<sup>nd</sup> – Leon Boutwell
- 3<sup>rd</sup> – Harry Hughes
- 4<sup>th</sup> – Walter McKay

### Extracted Honey, Amber

- 1<sup>st</sup> – Brian Carver
- 2<sup>nd</sup> – Carson Boutwell
- 3<sup>rd</sup> – Leon Boutwell
- 4<sup>th</sup> – Ben Kern

### Extracted Honey, dark

- 1<sup>st</sup> – Martha Brackin
- 2<sup>nd</sup> – Al Backstrom
- 3<sup>rd</sup> – Kim Carver
- 4<sup>th</sup> – Peggy Harris

### Chunk Honey

- 1<sup>st</sup> – D. L. Wesley
- 2<sup>nd</sup> – Harry Hughes

Wax Blocks: 1<sup>st</sup> – Michael Cape

## Wax Ornaments

- 1<sup>st</sup> – Nicholas Cape
- 2<sup>nd</sup> – Michael Cape

## Wax Figurines

- 1<sup>st</sup> – Harry Hughes
- 2<sup>nd</sup> – Michael Cape
- 3<sup>rd</sup> – Harry Hughes
- 4<sup>th</sup> – Ruby Backstrom

## Educational Exhibits

- 1<sup>st</sup> – John Mark Lott
- 2<sup>nd</sup> – Matthew R. Lott

## Itawamba County Beekeepers Meet in Fulton

*By Jeff Harris*

Romona Edge of the Itawamba Co. Extension office in Fulton, MS hosted a quarterly meeting of the local beekeepers on Tuesday, October 7. I spoke about various aspects of the biology of queen bees, but I also entertained questions about all aspects of beekeeping. I have spoken to this group of beekeepers on several occasions, and they always make me feel at home in their neck of the woods. Romona is always a gracious host, and I know that they will have me back for future meetings of the group.

## The MBA Annual Convention

*By Jeff Harris*

This year's annual MBA Convention was held at the Neshoba Coliseum in Philadelphia, MS on Oct. 31 - Nov. 1. Approximately 140 people attended, and they were treated to a good program that included presentations from several out-of-state speakers and beekeepers from Mississippi. As has been the format of past conventions, a separate beginning beekeepers section was run concurrent with a general session.

The out-of-state speakers included Blake Shook, Dr. Jennifer Tsuruda and Phil Craft. As usual, Mr. Richard Adee provided a legislative update and news brief, and although he traveled, we do not always consider him an out-of-state speaker. We greatly appreciate his contributions to our meeting.

Steve Coy presented the ideas and issues about pollinator protection, and we appreciate his contribution. Johnny Thompson summarized the laws and health codes that govern honey houses. Audrey Sheridan and I provided several talks on basic bee biology and basic hive management issues.

Listed below are the bios for our guest speakers. We try hard to get quality people, and we hope to see you at next year's convention, which is likely to be in the Hattiesburg area.

**Blake Shook** is the 22-year old President of the Texas Beekeepers Association. Blake lives and operates his beekeeping business just outside of Dallas, Texas, in McKinney. He has been a beekeeper since he was just 12 years old. That was 10 years ago when Shook says he got involved in the trade after taking part in a local youth program that offered one beehive to kids between the ages of 12 and 17. By the time he graduated high school, he says he already had a pretty large beekeeping business. These days he has around 2,000 beehives and each hive has about 80,000 bees.

**Phil Craft** served as the Kentucky State Apiarist from 1999 through 2011. He is a graduate of Oberlin College in Ohio (BA in biology), and of the University of Kentucky. Phil continues to communicate with beekeepers through his "Ask Phil" question/answer column which appears monthly in [Bee Culture](#) magazine, and through his webpage, [Philcrafthivecraft.com](http://Philcrafthivecraft.com). He is also the U.S. technical adviser for Veto-pharma, the maker of Apivar. A native of the mountains of Eastern Kentucky, he now lives out in the sticks in the Bluegrass region of Kentucky near Lexington with his family, a very old dog, and some bee hives. You may send questions to Phil at [phil@philcrafthivecraft.com](mailto:phil@philcrafthivecraft.com)

**Dr. Jennifer Tsuruda** is the new extension apiculturist at Clemson University. Prior to the new job, she was a postdoctoral researcher in the laboratory of Greg Hunt at Purdue University. There she studied the molecular genetic aspects of several varroa-resistant behaviors that included grooming behavior and Varroa Sensitive Hygiene. She continues using molecular genetics to breed bees for improved resistance to varroa mites and the Small Hive Beetle in South Carolina.

**Joey Daniels** serves as President of the Mississippi Agricultural Aviation Association. He has owned and operated Daniels Aviation Inc. in Hollandale, MS for 9 years and has been in the Ag Aviation Business for 21 years. He has served as the MAAA board member for 6 years. He has logged over 17000 hours of crop spraying and forestry work. Joey attended Valdosta State University and Flight Training in Ag Flight in Bainbridge, GA. Joey is originally from Cordele, GA and has lived in Inverness, MS for 17 years where he is married with three kids.

No convention would be complete without vendors. This year's convention hosted at least 5 beekeeping equipment vendors, one book seller, and a vendor specializing in beauty products derived from honey and beeswax. We also had a great support staff from the Neshoba County Extension office. Harvin Hudson cooked and served lunch and dinner. Karen Benson organized the facilities and beckoned to our every need. We thank everyone from the extension office for helping deliver a good convention.

### **Honey Contest at the Annual Convention**

*By Jeff Harris*

I judged the honey and wax contest at the MBA Convention this year. I used the same rules that were used for judging at the MS State Fair (see above).

Here are the winners:

Extracted Honey, Light

- 1<sup>st</sup> – Leon Boutwell
- 2<sup>nd</sup> – Jeff Thomas
- 3<sup>rd</sup> – Macy Walden

Extracted Honey, Amber

- 1<sup>st</sup> – Leon Boutwell
- 2<sup>nd</sup> – Carson Boutwell
- 3<sup>rd</sup> – Paul Watson

Extracted Honey, dark

- 1<sup>st</sup> – Paul Watson
- 2<sup>nd</sup> – Jeff Thomas
- 3<sup>rd</sup> – Peggy Harris

Chunk Honey

1<sup>st</sup> – Bill Nadeau

1<sup>st</sup> place winners received \$30; 2<sup>nd</sup> place winners received \$20; and 3<sup>rd</sup> place winners took away \$10. I thank everyone for participating, and look forward to your entries next year.

### **Bees and Bugs at the Mississippi Food Summit**

*By Audrey Sheridan*

Early Saturday morning, November 8<sup>th</sup>, myself, Lois Connington and Joe MacGown loaded up our respective entomological teaching materials and headed down to the Mississippi Agriculture and Forestry Museum in Jackson to participate in the second annual Food Summit and Agricultural Revival. This event, hosted by the Mississippi Sustainable Agriculture Network, featured a “Busy Bee” tent (more accurately, “area”) that featured educational booths and activities for children. MSU Entomology was a major presence at the tent with our displays of pinned exotic insects, a live insect zoo which included food insects, and of course, beekeeping equipment and paraphernalia. Even as we were setting up, curious kiddos were dropping by to ask “what’s this?” and “does it bite?”, peering at Lois’s and Joe’s displays of unusual critters with expressions of both horror and wonder.



At one point, a Brownie troop of a dozen or so girls sat cross-legged in the grass while I gave my spiel on bee biology and beekeeping and introduced them to all of the essential tools of the trade. They were extremely attentive and asked brilliant questions that

## MBA Officers and At-Large Directors 2014-2015

**President** – Austin Smith (601.408.5465); **Vice President** – Johnny Thompson (601.656.5701); **Treasurer** – Stan Yeagley (601.924.2582); **Secretary** – Cheryl Yeagley (601.924.2582); **At-Large Director** – Harvey Powell, Jr. (203.565.7547); **At-Large Director** – Milton Henderson (601.763.6687); and **At-Large Director** – John R. Tullos (601.782.9362)

revealed a genuine interest in what they were learning. At one point, a large worker bee appeared on the bar of beeswax sitting in front of the hive (see photo), and the girl nearest the table began to get nervous. She wouldn't believe me when I said the bee had no interest in her whatsoever and was not dangerous, so I picked up the little striped fuzzball by the wings to prove my point.

“Even a bee with a sting can be handled safely”, I began. Though, when I received some concerned looks from the few attending adults, I added, “but, don't try this at home!”. I placed the bee back on the wax bar and she continued her investigation of that enticingly fragrant object as if nothing had happened.

Lois had a rare time feeding brownies and muffins laced with black soldier flies and mealworms to adventurous kiddos. There were several takers (especially from the Brownie troop!), and those who partook earned the respect of their peers. As an added bonus, Lois had their picture taken wearing her “I Ate A Bug” button for bragging rights. The sun was shining hot and bright on the Busy Bee activity area, and the live insects were livelier than ever, according to Lois. Although I didn't have a honey bee colony to work with on that warm and pleasant day, volunteers from the CMBA were giving a beekeeping demonstration elsewhere on the farm grounds. I suspect that's where our little friend on the wax bar came from!

### **Joint Meeting of Lowndes and Monroe County Beekeepers**

*By Jeff Harris*

Randall Nevins (Monroe Co. Extension) and Reid Nevins (Lowndes Co. Extension) organized a joint meeting of beekeepers from the two counties. The meeting occurred at the Monroe Co. Extension office in Aberdeen, MS on Monday, November 10. Randall and Reid cooked dinner for everyone before I gave a presentation on “Overwintering” colonies of bees.

About 40 people attended the meeting, and they came loaded with questions about all aspects of beekeeping. I concentrated my presentation on the proper supplemental feeding of sucrose and protein to honey bees during extremely cold periods. I also highlighted the importance of hive ventilation and an upper entrance during cold winters. I also suggested that the use of candy boards could be an effective way to provide sugar during the winter that would not chill bees while serving as a failsafe against starvation.

I truly enjoyed my time with these beekeepers; there was a good energy in the room, and I thank Randall and Reid for inviting me. I am still trying to decide which of the cousins is the better looking guy. It's a coin toss.

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