President’s Message
October 2019

Hopefully you all have had a great summer with your bees. The weather has certainly cooperated with plenty of sunshine and heat as well as moisture in a couple of forms, rain and humidity. I ask that as you harvest your honey and wax this season that you consider entering in the Honey, Wax and Cooking Show at the fall meeting at the VFW in Medway on November 16th. The rules for entering are on the Mass Bee website for all to see. Please consider entering the cooking contest and share your award-winning entry with your fellow beekeepers at your table.

The last time we were together was at “Field Day” at UMass, presented by Franklin County Beekeepers. It was a very nice sunny warm day. We all learned a lot at the sessions that were presented. Hopefully you gained some new knowledge, and you tried some of the new beekeeping techniques you learned. The great thing about beekeeping is that you are always learning and “Mother Nature” is always challenging you to pay close attention.

On Saturday November 16th we are all gathering to receive new information from 2 speakers, Dr. Larry Connor and Mr. Steven Repasky who will give us insight into rearing queens and the essentials of swarms. The folks from Norfolk County Beekeepers lead by Kathy...
Halamaka and Kathy Gasbarro have done an outstanding job putting together this meeting. It is shaping up to be a tremendous meeting! Make sure you register for the meeting and reserve your lunch at the Mass Bee website. So, get your entries ready, reserve a room to stay the weekend and participate in all the activities they’ve planned. See you Friday evening the 15th for dinner and on the 16th for the meeting.

As always if you have any ideas or thoughts that you would like the Board of Director’s to consider please email or call and I will include it on our agenda when we next meet. The Board of Director’s meets quarterly to assure that we plan appropriately. As we move the fall meeting around the State, we are always interested in helping any County who wants to host the meeting. We have been quite successful with this approach and are getting much more exposure among the beekeeping community.

Lastly, I encourage anyone who is interested to help lead this organization to please bring their name forward at the fall meeting for inclusion on the list of nominees to be elected to a position on the Mass Bee Board of Director’s in November 2020. It is quite rewarding when you see how the interactions of beekeepers brings out best in all of us.

Thanks for making this association great!

Pete Delaney
President Massachusetts Beekeepers Association

Mass Bee Board of Directors Nominations

Mass Bee Nominating Committee presents the following slate of officer nominees for 2019/2020, to be voted on at the Fall meeting:

Treasurer – Phil Gaudette
Registrar - _TBD_

If you are interested in being on the Mass Bee Board of Directors contact any of the members of the Nominating Committee or the Corresponding Secretary.

Tom Graney, Mary Duane, Dick Callahan - Nominating Committee

Mass Bee Officers 2019

President:
Peter Delaney
president@massbee.org

Vice President:
Mary Duane
vicepresident@massbee.org

Recording Secretary:
Alexandra Bartsch
recordingsecretary@massbee.org

Corresponding Secretary:
Kitty de Groot
correspondingsecretary@massbee.org

Treasurer:
Alexander Rancourt
treasurer@massbee.org

Registrar:
Evelyn Sayles-Schraft
registrar@massbee.org

Webmaster:
Cliff Youse
webmaster@massbee.org

Nomination committee:
Mary Duane,
Tom Graney &
Dick Callahan

Web Site: www.massbee.org
Facebook: https://www.facebook.com/MassachusettsBeekeepers
Massachusetts Beekeepers Association Online
Application: https://www.massbee.org/membership/
Reflections of the 2019 Massachusetts Honey Ambassador

By Ryan Duggan (The 2019 Massachusetts Honey Ambassador)

Informal studies show that if you’re a beekeeper or bee enthusiast, you probably love talking to other people about bees. Whether it’s to those share your passion, or people who know just a little about our amazing pollinator friends, there’s something satisfying about getting to express your love for these incredible insects.

As the 2019 Massachusetts Honey Ambassador, it has been my job to teach people in Massachusetts about beekeeping, bees, and their importance while representing the Massachusetts Beekeepers' Association. Essentially, the Honey Ambassador is like Dr Seuss’s “The Lorax”, except instead of speaking for the trees, you speak for the bees. Whether you choose to go into elementary schools or spend time at local fairs, being the Honey Ambassador is a role that has so much in store for anyone who chooses to take it.

This role helped me to develop skills not only as a beekeeper in my second year with a hive, but in other aspects of my life as well. Coming out of this role I know that my skills of leadership, public speaking, and connecting with others have been significantly improved. There were all these great developmental things I got out of it, but I also got to wear a sash and have fun going behind the scenes at county fairs and Mass Bee meetings, interacting with big figures in the beekeeping world and being front and center in all the action- what’s more fun than that? For the rest of my life the memories I have made this year will hold a special place in my heart, knowing that I’ve furthered myself as an individual, helped educate others about bees, and had a great time in the process. If you are at all considering becoming the next Massachusetts Honey Ambassador, I recommend it, because the decision to take on this role is among the best I have ever made.

Feel free to reach out with questions to myself at ryan@duggan.com, your County Beekeeping Association President, or to the current Massachusetts Beekeepers’ Association President, Pete Delaney, at President@massbee.org for more information.

If interested in becoming the 2020 Honey Ambassador and are at least 16 years of age please contact Chris Delaney at Cadelaney13@Gmail.com for an application form.
I hope all of the Mass Bee members enjoyed a safe and restful summer. Now that fall has begun, the legislature is back from our August recess and busy with legislative hearings. H.763, *An Act to protect Massachusetts pollinators*, is scheduled to be heard on Nov. 12 and we’ll be lining up supporters to provide testimony, including Attorney General Maura Healey who has co-sponsored the legislation this session along with 153 other legislators from the House and Senate. With Vermont passing legislation this spring, we’re hoping to become the fourth state to pass a law limiting the use of neonicotinoid pesticides joining Connecticut and Maryland.

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One of the challenges keeping the bill from advancing to a vote is skepticism from some about the scientific consensus on neonicotinoids’ impact on pollinators. To put this issue to rest once and for all, the Legislature approved $100,000 in the FY 2020 state budget for the Pesticide Board to conduct a literature review and document the current science on the impacts of neonicotinoids on pollinators by the end of 2019. The Pesticide Board is authorized by law to conduct such reviews, supported by the scientists who sit on the Pesticide Board Subcommittee. The funding is intended to ensure the review can be completed in a thorough and expedited way. I recently attended the September meeting of the Board which is beginning the process of hiring staff to conduct this review and I will be closely following the process. Once the draft review document is complete there will be an opportunity for public comment, and I hope that Mass Bee members and as many local beekeepers as possible will participate in this process. Once complete, the review will inform the continued debate on the underlying legislation in the spring. It remains my goal to advance the legislation to the floor for a vote before the legislative session ends on July 31, 2020.

A big thank you to Mass Bee and the county beekeeping associations for their support throughout this process.

-Representative Carolyn Dykema

Thank you Representative Dykema for that update. We appreciate your commitment to and advocacy for pollinators and we appreciate the opportunity to include your update in the Mass Bee newsletter. As a result of the increasing public awareness of the negative environmental effects of pollinator habitat loss, neonicotinoids and glyphosate, there are at least nine bills that either or directly or indirectly impact pollinators if passed:

- **H.763 - An Act to protect Massachusetts pollinators**, Representative Carolyn Dykema.
- **H.776 - An Act empowering towns and cities to protect residents and the environment from harmful pesticides**, Representative Dylan Fernandes.
- **H.791 - An Act relative to improving pesticide protections for Massachusetts schoolchildren**, Representative Carmine Gentile.
- **H.792 - An Act relative to the prohibition of the transfer or use of glyphosate in the Commonwealth**, Representative Carmine Gentile.
- **H.818 - An Act to protect pollinator habitat**, Representative Mary Keefe.
- **S.432 - An Act to restrict the use of pesticides around children**, Senator William N. Brownsberger

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All these bills were assigned to ENRA and, as Representative Dykema indicated above, a hearing on them has tentatively been scheduled for mid-November at the Statehouse. We will need all of you to come to the Statehouse again to pack the hearing room to capacity and to flood ENRA with written testimony, emails and phone calls. Please stay tuned for specific calls to action and hearing details.

Beekeeping Programs at Small Farms:
Drumlin Farm Case Study

Mel Gadd, Beekeeper
Mass Audubon Drumlin Farm Wildlife Sanctuary

The premise of this study was to convince small farms to start small scale beekeeping programs with the goals as follows:

1. Increase probability of pollination of crops on the farm including an increase in the volume of production of crops.
2. Create an additional price point for the farm through the production of honey, and bee related products (pollen collection, beeswax production, Bees wax products for sale by the farm…).

Mass Audubon Drumlin Farm Wildlife Sanctuary was used as the case study to show the impact of beekeeping programs on the farms output, as well as the additional profit center created by the sale of the
honey produced as well as sale of other products of the hive.

The study was done over three years to document the impact of the newly started beekeeping program. Initially we started with six hives strategically placed around the farm and wildlife sanctuary. We documented the output of the farm crops over these three years to see if there was any significant increase in the volume of the output of the farm which we could directly contribute to the implementation of the beekeeping program. We also considered any major differences in each year growing season (weather, rainfall) to ensure that the results on any increases in production was due to the impact of the beekeeping program.

As part of the study we documented the projected costs of starting and maintaining a beekeeping program, projecting different numbers of beehives (1-hive, 3-hives, 5-hives). In addition, based upon Drumlin’s experience, we included “Income & Expense” projections based upon the 3 different set-ups studied.

To summarize the findings of the study at Drumlin, are as follows:

1. Over the three-year study period, output on the farm increased, on average, 20% over the previous years prior to the major beekeeping program. **Conclusion made from this finding was that a small-scale beekeeping program will definitely benefit small farms.**
2. The honey produced by the bees created an additional “**profit center**” for the farm that had not existed previously.
3. The projected “Income & Expense” work-up provided as part of the study documented that “**net profit**” from the sale of the honey increased annually after the initial outlay to set-up the beekeeping program.

**Therefore, based upon this study, we strongly recommend that small farms start small scale beekeeping programs to benefit their overall production on the farm as well as creating an additional profit center through honey sales for the farm.**

If anyone would like a copy of the “handout” given when this talk has been given, which includes the detailed financial analysis of the costs and income from this recommendation, please feel free to contact Mel Gadd at Melbeekeeper24@gmail.com and I will gladly forward a copy of the handout.

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**Fall Meeting - Raffle**

Each year at our Spring and Fall meetings we have a raffle to help offset the costs associated with these meetings. Items raffled are generously donated by our terrific vendors and supporters. The prices for raffle tickets are 1 for $1, 6 for $5, or 15 for $10.
It was early March, after realizing I had lost 39 of my 115 colonies when I went to my bookcase and dug out and dusted my dad’s intensive bee diaries that span the years from 1947-1984 when he passed away. I sat down near the fireplace and for the next 4 hours and read through his diaries. I soon realized for the first time that the hobby of beekeeping is a series of trials and tribulations. Some years have more trials then tribulations and other years more tribulations but always some of both. The opening page was a 1947 Worcester County Beekeepers group picture at the July meeting in West Boylston showing 37 men and 3 ladies. It was certainly a male hobby back then. My dad came to America in 1946 from Poland after the war and started beekeeping here in 1947 with the help of Warren Richardson, a bee dealer in Worcester.

I then started reading various passages in the diaries realizing the trials and tribulations of beekeeping on an annual basis. He writes in 1958, it was a banner year when he averaged over 100+ pounds of honey from his 50 colonies and how thrilled he was. Then in 1962 he was bewildered at his 15 percent losses when the average back then was mostly between 5-10 percent, a figure we would be thrilled with. Reading into it, I could tell he was blaming himself for doing things wrong and trying to come up with reasons a 1966 passage talks about the worst honey year he had averaging only 20 pounds of honey from his 50 hives. Then in 1971 he refers to the worst swarming year he had seen here in America loosing over 15 swarms even with swarm prevention. One of the passages brought tears to my eyes where he refers to giving his oldest son Kenneth his first hive in 1955 for his 5th birthday. This was a day that I have never forgotten and that picture of he and I is on the front cover of the Worcester County cookbook. I think back to all of the trials and tribulations we went through the years of keeping bees together. A devastating 1956 passage about having to burn 15 hives caused by buying diseased honey super with AFB spores from another beekeeper. He says never again!

After reading 4 hours of my dad’s diaries I came to realize that there are many trials and better accepted losing all those colonies even though I thought I did everything that I could. Nature and environment have even greater control and that we cannot control that no matter how hard we try. Our management is important but nature controls even more. I then thought of the years after my dad’s passing realizing that the challenges in beekeeping are even greater than back then with varroa, tracheal mites, small hive beetle, chalkbrood, more viruses which caused me to take a little weight off of my shoulders for last winter’s devastating losses which brings me to this season.

The spring season was long and wet and cold until May. However, the colonies had started brood rearing in December this year after ending brood rearing in early October last fall. The weather turned warm in mid-May and the strong colonies were ready with swarm cells and from mid-May to the end of June we faced an intense swarm season and even with me and my two helpers doing intense swarm management I still lost 13 swarms and increased my hive numbers from 101 to 135 making splits

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and what I call super hives by adding a queen to a split with 8-10 frames of brood. These built up quickly and were honey producers within 2 weeks. This was one of the heavier swarm seasons I have seen especially after last season’s low swarm season. The swarm season coincided with a nectar flow the likes of which I have not seen in 20 years. I saw the colonies on my scale hives add 16-18 pounds of nectar in 1 day. I had to continue adding another super to my hives in 1 week. Most of my hives had 4 honey supers on by late July when we usually get a dearth. However, the dearth never came, and the nectar flow continued and continued right up until the third week of September. I then knew that it was over as the bees were now trying to get into my honey house to find honey, this has always been my guide to judging honey flows and dearth’s. My wife and I are still extracting having finished the light honey and now working on spinning out the dark honey. This type of year my dad called the banner years when both the spring, summer and fall flows were out of the norm. This was certainly one of those years with over a 90-pound average. The banner years only come around every 15-20 years looking at my dad’s diaries. New beekeepers you came into the hobby in a banner year.

There are still the trials to face of keeping our bees alive through the winter season. The mite numbers in my hives are now on the high side again after treating with miteaway in early August. One of the trials of beekeeping is keeping the numbers of these critters on the low side, a key for winter survival. I have also left a full super of honey for the bees which is much more nutritious than sugar syrup. We cannot be greedy as beekeepers but must think of our bees. You must evaluate your queen to make sure you have a vibrant queen laying brood in September and October to provide the colony young bees for overwintering. Evaluate your ventilation in the colony to avoid excessive moisture. Be sure your hive is tipped slightly forward to avoid melting snow going into your hive. Place wind barriers in front of hives in very windy areas. Close up screen bottom boards to avoid a wind tunnel into your bee cluster. You may choose to wrap but not overwrap. Finally, monitor your hives weekly for food stores so they do not starve during a tough cold winter. Be sure to put in your entrance and mouse guards by the middle of October.

Remember that you have a lot to do with your colony’s destiny, but nature has an even greater control and do not blame yourself if you did everything you could for your bees, and you lost them. I have finally come to grips with my last winter’s losses and worked even harder on my winter preparations this year. Remember you and your bees are partners and that is why we love our bees. They do so much for us, and we should do the same for them. Like my dad used to say the bees are number 1. Enjoy the hobby with all its trials and tribulations. This year’s honey season was one of the tribulations after the trial of the spring losses.

Best in Beekeeping,
Ken Warchol

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PREPARING FOR WINTER

By Ed Szymanski

There’s an old saying among beekeepers – “When should I start getting my bees ready for winter? In the Spring!” It’s true, really, everything we do (or should be doing) with our bees all year, whether it’s mite counts and treatments, food supplements, requeening, etc. will all have an effect on the bees’ winter survival. However, there are certain tasks that need to be done in the fall to help give them the best possible chance of survival.

WINTER PREP CHECKLIST

Mites under control – this is #1 - hopefully you’ve kept up with your mite counts and treatments when necessary during the year, and now, especially, you need to keep your winter bees healthy. Test at least one more time and apply one more treatment if needed. “Touch up” with an Oxalic acid vapor or dribble late fall/early winter.

If you’ve taken care of your mites, hopefully colonies are free of disease (DWV, other viruses, PMS) at this point.

Check to see if colonies are queenright, if not combine with a queenright colony.

Check for good population – 8 -10 frames bees minimum, if not, dispatch the weak queen and combine with a stronger colony.

Build up winter food stores. For 2-deep box hives, we shoot for a total weight of 100+ lb for Eastern Mass. Feed 2:1 syrup until temperatures reach freezing. Be sure to have robbing protection on the hives as you feed.

Frames of honey strategically located – food must be adjacent to and above the winter cluster. Bees and brood down below, food on top. The bees only heat the cluster, frames on the outskirts may be cold, and the bees will not break the cluster to get food stored too far away.

Mouse guards should be put in place – temperatures are already reaching 45F at night, mice are looking for warm places to nest. Check to be sure no mice are in there already, so you don’t trap them inside.

Feeding shims/candy boards – install soon before it’s too cold to open the hives. Then you can slip patties in quickly when needed.

Honey supers, queen excluders, escape boards off – let the bees have any honey collected from now

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on for winter. Minimizes the amount of the sugar syrup you’ll have to feed them. And it’s better for them.

Upper entrance – make sure they have a way to get out when the bottom of the hive is buried in snow and it’s warm enough for a cleansing flight.

Cut insulation board or homasote to fit under the outer cover. We had always used homasote to absorb any moisture that forms in the top of the hive. This year we’re going to go with a piece of insulation cut to fit tightly inside the outer cover. This will eliminate a cold spot where condensation could occur, and moisture will flow out of the top entrance.

If you use quilt boxes, get those ready to install soon.

Secure hives with ratchet straps (we have ours on all year).

Slatted racks will keep the bees up further from the cold incoming air. Also keeps the wax away from the Oxalic Acid vaporizer (yes, it has happened).

Wrap if desired – this is a matter of preference. A piece of tar paper or black plastic will provide extra protection against cold winds and will allow for some heat gain on a cold sunny morning. Be sure to leave entrances and ventilation holes clear.

Protection from wind – if your apiary has no natural protection from cold north winds, a fence or pile of hay bales can help.

Once winter comes, be sure to keep entrances cleared of snow and sweep out the dead bees once in a while.

Watch where the bees are in the hive – once they move to the top, it’s time to put fondant or sugar patties on. An Infrared camera helps with that. Don’t knock on the side of the hive to hear if they’re still alive! It breaks their torpor and makes them consume excess food.

Watch food stores all the way to April – don’t lose a colony to starvation in the early spring!

Did I mention mites under control?

Photos by Ed Szymanski
HIGHLIGHTS OF SUMMER 2019

by Tom Graney

Franklin County Beekeepers (FCB) cohosted the 10th annual Bee Festival in Greenfield that honors L.L. Langstroth, Father of Modern Beekeeping. While living in Greenfield Langstroth wrote “The Hive and the Honey Bee”.

FCB allows fairgoers to sample the honey which resulted in record honey sales at the 145th Franklin County Fair in Greenfield. The bee products raffle basket raised money for bee research.

Congratulations to artist Colleen Seamon on being selected and commissioned to paint the Mass Bee sponsored sidewalk giant bee sculpture. Coleen and her husband Jack are active members of both the Franklin County and Worcester County Beekeepers Associations. Six painted bee sculptures will be unveiled at the 2020 Greenfield Langstroth Bee Festival.

Preparing for the 10th annual Bee Festival, Franklin County Beekeepers and local Greenfield volunteers paint the crosswalk next to the Second Congregational Church where L.L. Langstroth served as pastor from 1840 to 1848.
The highlight of my 2019 beekeeping season was attending the 46th Apimondia International Apicultural Congress in Montreal. The theme of the research conference was “Working together in Agriculture” which highlighted the need for global, symbiotic cooperation between farmers and beekeepers. Farmers need bees for pollination and beekeepers need managed farmland that does not pose a threat to their bees.

The Apimondia Scientific Commissions covered the topics of Beekeeping Economy, Bee Biology, Bee Health, Pollination, Beekeeping Technology, Apitherapy, and Beekeeping for Rural Development. The conference was attended by over 5,500 beekeepers, scientists, and journalist from over 134 countries. Keynote speakers focused on evolution and mechanisms of social behavior, integrated crop pollination, global bee health, and Darwinian beekeeping/natural selection.

Adulterated Honey Trade was a major conference topic. Simply stated, adulterated honey is “Honey collected by the bees and harvested by beekeepers that does not reach the final consumer in its original quality. Adulteration occurs when foreign sugars and syrups are intentionally added yet the product is represented as genuine honey.”. Interestingly, 46% of the submitted honey for judging in the Apimondia World Honey Competition was rejected by the Testing Laboratory for being adulterated.

If you are interested in reading more about presentations at the Apimodia 2019, including talks on Detection and Prevention of Honey Fraud, you can view the abstracts at https://www.apimondia2019.com/program/abstract-book/
BREAKING NEWS!

EAS is coming to Massachusetts in 2021!

I am pleased to announce that the Eastern Apicultural Society (EAS) has accepted the Massachusetts Beekeepers Association invitation to host its annual conference in Massachusetts in July of 2021. The last time that this prestigious conference was held in MA was in the year 2000. This will give MA beekeepers the opportunity to showcase beekeeping in MA. Also, our club members will be able to attend presentations by the leading researchers in the country.

EAS is an international non-profit educational organization founded in 1955 for the promotion of bee culture, education of beekeepers, certification of master beekeepers, and excellence in bee research. EAS is the largest noncommercial beekeeping organization in the United States. It holds its annual conference in one of its member states along the east coast.

Over the last few months, a MBA search group has researched several venue sites. The committee has decided to host the conference on the campus of the University of Massachusetts in Amherst. The conference will be July 25th- July 20, 2021. So please SAVE the DATE.

We would like to get all of our state's county organization involved in the conference. It will take a lot of manpower to plan and run the conference successfully. SO please consider sharing your talents and time to make this successful. All are welcome to contribute. Please contact your club President or MBA delegate to sign up.

The next task is determining the theme of EAS MA 2021. The MBA is holding a contest to determine the theme. Some of the past themes have been "Swarm to Pennsylvaina" and "Healthy Bees Healthy Planet". Suggestions can be submitted to vicepresident@massbee.org and must be submitted by November 4th. The winning theme will be announced at the MBA Fall meeting on November 16th. An EAS T-shirt will be awarded to the person who submits the winning theme.

The next task will be to design a logo that reflects this theme. Stay tuned for further updates over the next year.

Mary Duane
Vice President MBA
Committee President for EAS MA 2021
Massachusetts Beekeeper of the Year

It’s that time again! It is your opportunity to nominate someone for Beekeeper of the Year.

What is the nomination process and criteria for Mass Bee Beekeeper of the Year?

❖ A person does not have to be a Massachusetts Beekeepers Association member but must be a member in good standing of a Massachusetts County Beekeeping organization.

❖ This is a person who has willingly provided his or her time and knowledge over the years to help, train, and educate others in the field of beekeeping.

❖ Nominees are submitted by the County Club president or directly to the selection committee chair.

❖ The selection committee consists of three people and is chaired by David Thayer.

❖ Deadline: All nominations must be submitted via email to Dave Thayer (wolf009@hotmail.com) by December 28th. This gives time for the committee to determine the recipient of the Massachusetts Beekeeper of the Year award and to have the award completed and ready to be presented at our spring meeting.

Any questions, please contact David Thayer at wolf009@hotmail.com. Thank you!
UMass Extension Update

1) Check out the third article of The Research Buzz in this edition of the Mass Bee newsletter. It is a recurring column where we highlight new and interesting bee research.

2) Check out our new Facebook page! Search for “UMassExtPollinators” on Facebook.

3) Explore our upcoming workshops. To sign up, visit https://ag.umass.edu/pollinators/upcoming-events or email hwhitehead@umass.edu:

   o Honey Bees Under the Microscope
     Dissect a bee to learn about honey bee internal and external anatomy! Each person takes home a personal dissecting kit (wax dish, scissors, pins, etc.) 10am-4pm. Cost: $50.
     - November 2, 2019 – Gordon College (Wenham MA)
       (FULL, email hwhitehead@umass.edu to get on the wait list.)
     - March 7, 2020 – UMass Amherst (Amherst MA)
     - April 4, 2020 – Location TBD (Central MA)

   o Fight the Mite!
     Learn all about mite biology, mite treatment options, miticide safety, and how to create an integrated mite management plan. This is a hands-on workshop, where you will apply fake miticides, and create a sample apiary plan. 9am-5pm. Cost: $50.
     - May 2, 2020 – UMass Amherst (Amherst MA)
Welcome back to The Research Buzz, a recurring column where I summarize some of the newest and coolest in bee research. This week, we start by talking about the temporary suspension of the USDA-NASS Honey Bee Colonies Survey, and clarifying which bee health survey was affected (and which weren’t). Then, we discuss an important paper in which researchers analyzed 12 years of data on neonicotinoid seed treatments in soybean production (hint: turns out they don’t have much of an effect on yield). You will also learn about Varroa transmission via flowers, and the impact of nutritional deficiency on colony growth (the latter study was conducted in Massachusetts!). Finally, I’ll describe new research on the unusual “sexual arms race” between queens and drones. You can also read this column on the UMass Extension website.

USDA-NASS Survey Temporarily Suspended
This summer, the USDA National Agricultural Statistical Service (NASS), suspended data collection for their Honey Bee Colonies Survey due to resource contraints (you can read their statement here. They recently announced that they will resume collecting data this fall.

How important is this?
The USDA-NASS Honey Bee Colonies Survey is the only government-run survey collecting data on colony numbers and colony loss in the US. If it were discontinued, it would impact our ability to track losses at a national level. Fortunately, it was only briefly suspended this summer.

Since there are a number of bee health surveys in the US, I think it is important to clarify which project was affected by this suspension. There are three primary organizations collecting national honey bee data: (1) The Bee Informed Partnership (BIP), a non-profit, which has been surveying beekeepers about colony loss and management practices since 2006 in their Management Survey. (2) The USDA Animal and Plant Health Inspection Service (APHIS), which has been monitoring disease levels in large-scale apiaries since 2009 through their Survey of Honey Bee Pests and Diseases. For this survey, apiary inspectors from participating states send in bee and wax samples for analysis – you can check out the data here. (3) The USDA National Agricultural Statistical Service (NASS), which has surveyed beekeepers about honey production since 1986 in their Honey Survey. In 2015, in response to concerns over bee health, they added the Honey Bee Colonies Survey, which collects information about colony numbers and loss in the US. It is this NASS Honey Bee Colony Survey that was temporarily suspended.
Neonic seed treatments have negligible effects on soybean yield

In September, researchers from 14 universities across the US released a paper in *Nature* that summarized research on neonicotinoid seed treatments (NST) and soybean yields. They analyzed 194 studies spanning 12 years, and 14 key soybean producing states. The researchers found that using NST had negligible effects on yield. In fact, management decisions like planting date had more impact on yield than seed treatment. They also found that IPM practices (scouting for pests and treating once pests are present) led to higher yields than prophylactic seed treatments. They point out that pest pressure in US soybean production is generally low, and few pests are active early in the season, when NST provides protection. Because NST has negligible impacts on yield, and demonstrated negative effects on non-target organisms, the authors conclude that the “insurance” of using NST in soybeans is not worth the cost to farmers or the environment.

Why is this research important?
Seed treatments on corn and soybean represent the largest use of neonicotinoids in the US, and treated seed comprises about 34-44% of soybean acres planted. If extension agents and crop advisers no longer recommend neonicotinoid treated seed for soybean production, it could help to reduce the presence of neonicotinoids in our agricultural landscapes, while also benefiting farmers.

*Read the full study* [here](#).

Can Varroa spread via flowers?

We know that *Varroa* mites can spread between colonies via robbing and drifting - but can they also spread via flowers? That’s the question that Tom Seeley and his team at Cornell asked a few years ago. Mites had been found on flowers in the past and had been shown to survive on flowers for up to 6 days. For this study, the researchers placed mites on a sugar feeder and on several different flower types. Then they introduced honey bee foragers and observed mite and bee behavior. Of the 74 experimental mites, all but three successfully infested a bee (two were blown off by the wind, and one was groomed off by the bee). ~ 30% of infested bees groomed themselves, though only one managed to permanently detach the mite.

Why is this research important?
This study shows that mites are able to infest bees on flowers. However, we don’t know how often this occurs, or whether it is an important route of mite transmission - plenty of questions for future studies to explore!

*Read the full study* [here](#). *Watch a cool video of these observations* [here](#).
Honey bee colonies grow bigger with complete diets

Researchers at Tufts University recently published a study on dietary diversity and colony growth, which was conducted beside a wildflower meadow in Grafton MA. They installed colonies with pollen traps, and divided them into three groups: one group (pollen trap “on”) was fed a synthetic supplement containing 6 out of 10 essential amino acids; the second (pollen trap also “on”) was fed a synthetic supplement containing all 10 essential amino acids; the third (pollen trap “off”) was allowed to freely collect wildflower pollen. They found that the amino acid-restricted colonies didn’t grow over the course of the summer, and the full-supplement colonies grew at about 1/3 the rate of the colonies that foraged naturally. The researchers concluded that a full set of essential amino acids is critical for colony growth, and that it is important to remember that pollen contains essential nutrients beyond amino acids, like lipids, proteins, and secondary metabolites. They say that a complete diet is critical for colony growth, and planting wildflower strips near monocultures may help improve pollen diversity and bee health.

Why is this research important?
It provides more evidence that a diverse diet is important for bees, and points to potential benefits of wildflower plantings.

Read the full study here.

A “sexual arms race” between queens and drones?

For honey bee queens, it is advantageous to mate with as many drones as possible to ensure genetic diversity. However, the more drones that the queen mates with, the smaller each drone’s relative contribution to hive genetics. This creates a “sexual conflict” (common in social insects!) in which the optimal number of matings is higher for queens than for drones. In order to reduce the number of subsequent queen mating flights, it turns out that drones have evolved a sneaky solution: in a new study, researchers show that drone semen passes into the hemolymph and causes genetic changes that compromise queen eyesight about 24 hours after mating. Not only that, but they found that inseminated queens left for subsequent mating flights sooner than those injected with saline solution, that they were less susceptible to visual cues, and were more likely to get lost on mating flights. All of this points to a subtle sexual arms race: in which drones reduce the queen’s ability to go on subsequent mating flights, and queens hasten subsequent mating flights in order to secure maximum genetic diversity before their vision is compromised.

Read the full study here.

Contact: Hannah Whitehead, UMass Extension, hwhitehead@umass.edu
NOVEMBER 16, 2019

SAVE THE DATE FOR:

MASS BEE FALL 2019 MEETING
HOSTED BY NORFOLK COUNTY BEEKEEPERS ASSOCIATION

Mass Bee Presents:

Speakers, Dr. Larry Connor, entomologist and author of a series of beekeeping books including “Queen Rearing Essentials,” and “Keeping Bees Alive,” and Stephen Repasky, Master Beekeeper, consultant, author of “Swarm Essentials,” and owner of Meadow Sweet Apiaries, will be featured at this year’s Fall Meeting at the VFW in Medway, MA. The day will also show case vendors and include honey and wax contests, raffle, and opportunities to talk bees with friends and acquaintances.

Please visit the Mass Bee and Norfolk County Beekeepers Association websites for more information including meeting and lunch registration forms.

http://norfolkbees.org/

https://www.massbee.org/
Mass Bee Fall Meeting Details
Saturday, November 16, 2018
8 AM – 3 PM
VFW Hall, 123 Holliston Street, Medway, MA. 02053

Come join us for an outstanding educational event hosted by Norfolk County Beekeepers Association.

SPEAKERS

Dr. Larry Connor - Entomologist and author of a series of beekeeping books: Increase Essentials, Bee Sex Essentials, Queen Rearing Essentials and most recently Keeping Bees Alive. He is currently working on his newest book, Package Bee Essentials.

Larry’s presentations:
  The Essential Nuc
  Keeping Bees Alive

Steve Repasky - Master Beekeeper, consultant, author of “Swarm Essentials”, and owner of Meadow Sweet Apiaries.

Steve's presentations:
  Swarm Biology & Ecology
  Swarm Management

VENDORS CONFIRMED

* BETTERBEE
* MANN LAKE
* STARAHART HOLLOW
* VERMONT QUILT BEE
* SLOVENIAN BEEKEEPING TOURS & HIVES
* SOLUTIONBEE

Please contact Kitty de Groot if you are interested in vending at kittydegroot@hotmail.com

Details and schedule will be available soon on our web site https://www.massbee.org

Updates & notices will be posted on the Mass Bee Facebook page https://www.facebook.com/MassachusettsBeekeepers/ and shared in our Facebook group https://www.facebook.com/groups/1478288992482523/

All attendees must be current Mass Bee members or current high school or BCC students. If you are not currently a member or student, you can join online or pay for membership at the door ($15 for individual, $20 for family and $25 for organization.) Payments by credit card are accepted on our web site via Mass Bee’s online membership form → https://www.massbee.org/membership/

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LUNCH OPTIONS AND REGISTRATION/RESERVATIONS

Lunch options and Registration / Reservation information can be found at our website [https://www.massbee.org](https://www.massbee.org). Please note lunch MUST be reserved at least 1 week before the meeting (deadline is November 9th.) Lunches will not be available for purchase at the event.

Friday night **SPEAKERS DINNER** at Restaurant 45, 45 Milford St, Medway, MA

7:00 PM: Social Greeting Gather
7:15 Buffet open (Garden Salad, Chicken Marsala, Eggplant Parmesan, Baked Haddock, mashed potatoes and fresh vegetables, Italian bread, coffee and dessert) - $17/person.
7:45 Speaker: Bob Hickey will be discussing “Queen Rearing in Norfolk County”

**Registration Required** RSVP by November 6th for the Speakers’ Dinner at: [https://www.massbee.org/events/fall-meeting/](https://www.massbee.org/events/fall-meeting/)

**ARENA ACCOMODATIONS**

- **DoubleTree Inn**
  - **Address**: 11 Beaver Street, Milford, MA 01757
  - **Phone**: 508-478-7010

- **La Quinta Inn**
  - **Address**: 24 Beaver Street, Milford, MA 01757
  - **Phone**: 508-478-8243

- **Holiday Inn Express Boston-Milford**
  - **Address**: 50 Fortune Blvd., Milford, MA, 01757
  - **Phone**: 508-634-1054

- **Fairfield Inn & Suites**
  - **Address**: 1 Fortune Blvd., Milford, MA, 01757
  - **Phone**: 508-478-0900

**CONTESTS**

**HONEY AND COOKING CONTESTS - No experience necessary.**

MassBee and the Norfolk County Beekeepers Association (NCBA) welcome beekeepers to submit honey and cooking samples from their 2018 honey harvest for this year's honey and cooking contests. This is a great chance to show off your stuff! Ribbons are given for the judge’s top three entries in each category.
NOTICES

Honey Request - AG DAY ON THE HILL – Spring 2020

Every year MASS BEE sends a contingent of Beekeepers to the State House to distribute small jars of Honey to all the state Legislators and Representatives. We need your help to accomplish this task; I am requesting each county club to contribute two cases of 8oz. jars of unlabeled honey for our distribution.

2019 Labels will be printed; each County that contributes will be named on this label.

I plan on attending the spring Mass Bee meeting in March to accept your club’s donation.

Please feel free to reach out to me with any questions or concerns.

Thank you! Susan Robinson smrbus10@msn.com

Mass Bee Nominating Committee presents the following slate of officer nominees for 2019/2020, to be voted on at the Fall meeting:

- Treasurer – Phil Gaudette
- Registrar - _____TBD_____

If you are interested in being on the Mass Bee Board of Directors contact any of the members of the Nominating Committee or the Corresponding Secretary

Tom Graney, Mary Duane, Dick Callahan - Nominating Committee

REMINDER - CLUB PRESIDENTS

Please remember to submit your nominations for the Beekeeper of the Year. Submittals are due by December 28th, 2019. Hopefully we will have a nominee from each county. Nominations should be emailed to David Thayer at wolf09@hotmail.com. Please note BEEKEEPER OF THE YEAR NOMINATION in the subject line.
Massachusetts Beekeepers Association Membership Application

Application Date: __________________________
Check #: _______ Amount: __________________
Membership Year: __________________________
New: __________ Renewal: ________________

All Memberships run from the date of the Annual Meeting in November until the subsequent Annual Meeting.

NAME(S): ____________________________________________

ANNUAL MEMBERSHIP TYPE: Individual $ 15.00 ________
Family $ 25.00 ________
Organization $50.00 ________

ADDRESS: __________________________________________
_____________________________________________________________________

EMAIL #1: ____________________________________________
EMAIL #2: ____________________________________________
PHONE: ____________________________________________

County Beekeeping Association: ________________________________

Completed applications along with payment made out to the “MBA” should be mailed to:
MBA Memberships
PO BOX 232, Marion, MA 02738

Applications may also be emailed to correspondingsecretary@massbee.org

Or fill out the form online on our web site at https://www.massbee.org/membership/