

The Massachusetts Bee

This is the official newsletter of the Massachusetts Beekeepers Association; www.massbee.org

“He is not worthy of the honeycomb, that shuns the hives because the bees have stings.” [William Shakespeare](#)

President's Message

It has taken a while this year, but the cold weather and snow have finally arrived in Massachusetts. I hope that your hives went into winter with a large cluster of healthy fat bees. As you read this newsletter in your warm home, the bees are beginning the process of raising their brood. Keep a speialeye on their food supplies since they might have eaten more than normal due to the abnormally warm late fall and early winter. Beekeeping is such a challenging endeavor; no two years are the same.

It has been a long couple of years navigating in a world dominated by Covid-19 protocols, and it was so nice that Mass Bee was able to have all its 2022 meetings in person. Thanks to Essex, Franklin, and Middlesex Counties for hosting meetings this past year. The information gained from our knowledgeable speakers and informal talks with our fellow beekeepers has improved beekeeping practices in our state. Congratulations to Mary Ann Zuber from Bristol County who won the Massachusetts Honey Show for her excellent light honey. There was an extremely low number of entries this year and I encourage every to support the Honey Show next year. I am hearing from many county associations that their number of honey show entries has greatly fallen. Let's make an effort in 2023 to promote beekeeping by entering our county and state honey shows.

Congratulations to Caroline Canterbury who has been crowned the 2023 Massachusetts Honey Queen at the Fall Meeting. Caroline is a very accomplished young person who will do a wonderful job promoting Beekeeping across our state. If your association has a special event, please consider reaching out to invite Caroline. We would like to thank outgoing Honey Queen Abbie Milewski who did a great job representing Mass Bee.

This coming year is a special year for Mass Bee. I trust that you already know, Massachusetts has been awarded the privilege of hosting the Eastern Apicultural Societies (EAS) 2023 Summer

Winter 2023

- 1 | **President's Message**
[Mary Duane](#)
- 3 | **Wintering your Bees**
[Ken Warchol](#)
- 5 | **Mass. Honey Queen**
[Chris Delaney](#)
- 6 | **Intermediate Bee School**
[Ed Szymanski](#)
- 9 | **Kids Bee Suit Program**
[Lisa Maguire](#)
- 10 | **EAS Update**
[Mass. EAS Committee](#)
- 2 | Meeting & Events Calendar
- 8 | Membership Renewal Reminder
- 11 | MassBee Spring Meeting Info
- 12 | March Beekeeper Conference
- 13 | EAS Flyer
- 14 | MDAR Update

Save The Date

Worcester County & Hampden County March Beekeeper Conference

03/04, 8am-3:30pm, Life Song Church Hall 65 Gilmore Drive, Sutton, MA
Speakers: Dr. Jeff Pettis, Dr. Geoffrey Williams. See Page 12 for more info.
<https://wcbamembers.wildapricot.org/event-5118703>

Massachusetts Beekeeping Association Spring Meeting

03/18, 8am-3:30pm, Topsfield Fairgrounds, Topsfield, MA.
See Page 11 for more info.
<https://www.massbee.org/>

Middlesex County Beekeepers Association March Meeting

03/31, 7-9pm, 27 School St, Carlisle, MA
Bee Talk: Making Cocktails with Honey & Mead

Massachusetts Beekeeping Association Annual Field Day

06/17, 9am-4pm, MDAR Amherst, 911 North Pleasant Street, Amherst, MA
Speakers: To Be Determined.
<https://www.massbee.org/>

Eastern Apicultural Society 2023 Conference

Univeristy of Massachusetts, Amherst, MA
07/31 - 08/04, More Information on Pages 10 and 13

Conference in our state. The location of the conference moves to different member states along the east coast. The last time that it was in Massachusetts was in 2001 at the Massachusetts Maritime Academy on the Cape. EAS 2023 will be at the University of Massachusetts Amherst from July 31- August 4 th . I strongly encourage you to attend a one-day, two-day short course, the three-day conference or the whole week if your schedule permits. A committee of Massachusetts beekeepers has been working with the EAS team to put together an enjoyable and informative program that will be well worth your time and money. There is something for beekeepers of all experience levels. The program schedule and registration fees will be coming out in February. Please consult Massbee.org and easternapiculture.org for updated conference information. Mass Bee will be sending out email blast updates to our members.

In conclusion, Mass Bee has several openings on its board including Recording Secretary, Corresponding Secretary, Legislative Director, Pesticide Director, and Social Media Assistant. A big thank you to Kitty DeGroot who has served as the Corresponding Secretary for the last four years! Please consider sharing your talents and stepping up to help Mass Bee promote Beekeeping. When we all work together, we can achieve so much more for our pollinators.

Stay warm and Bee Healthy!

Mary Duane ●

Managing Your beehives during the Winter Months, by Ken Warchol

Our honeybees are now in the midst of the Winter season and many of you as beekeepers are asking what should I do now to get my bees through those tough winter months. I take you back through a recap of last season which often determines some of what we should be doing now to manage our bees.

The months of May through August were on average for most years. We did manage to get an above average nectar flow for spring, early summer and mid-summer. Many were extracting that honey when the intense heat and dryness came in August and lasted through October which shut down a good portion of the nectar flow leaving the bees in a desperate situation if you removed your honey supers for your consumption. The bee hives with their large numbers depleted the honey in the brood chambers by September and this is where the beekeeper came in and started having to feed sugar syrup or honey in a large way. Many of us went scrambling for 25 pound bags of sugar in order to keep up with the demand feeding a 2:1 sugar ratio syrup. Those who left their honey supers on found them being depleted by the bees in August through October.

The fall plants such as Goldenrod, Joe-Pye Weed, Japanese knotweed, fall asters and others shut down their nectaries and the bees were left without a precious fall flow due to the plants stress. Some beekeepers who went away for a vacation and came back called me and what I found was a starved hive by late summer.

Feeding was a necessity going into late fall. Many of us noticed a cutback in brood rearing occurring before we started feeding. A natural occurrence when nectar and pollen gets scarce.

This is not a particularly good thing when you need strong brood rearing in your beehive to build a large number of young bees to sustain the winter cluster. Then by the second week of October I started to receive quite a few calls from beekeepers saying they see no eggs or young larva in their colonies and thought they lost their queens only to find their queen but no eggs. I did see the same effect which I have seen for the last 3 out of five years.

In over sixty years of beekeeping before this phenomena I had rarely seen this. Brood rearing usually would continue through mid November in this part of the country so this situation seems strange and even occurred 3 years ago when we had a good fall nectar flow. Many have noticed this as well. How will you get enough young bees into your winter cluster? I found over 60 percent of my hives with this situation of no brood a month early. However, what I found over the last 3 out of 5 years is that those colonies started brood rearing in December instead of mid January to build up their numbers before January when many of those September bees would be dead.

I will continue to monitor this and maybe get an answer as to why this is occurring. Is this a natural way of cutting the mite population going into the winter? This is speculation of course on my part.

Early on in last season the mite levels on average seemed to be lower than usual but by the end of September the numbers rose and found that I had to treat by mid October. I had placed my last honey super above the inner cover of each hive to have the bees bring the honey down into the brood chamber for wintering food. I then used Apivar to treat for mites. I had previously treated in late August with mite-away. The Apivar was left in until the end of October (45 days) at which time I removed it. The treatments did well as my mite counts were low. I then closed up and winterized my colonies and that is how I left them going into winter. I did notice that the two thermometers on my hives reached temperatures of 90 plus degrees on December 14 and December 19th which means there is brood rearing going on down in the middle of the top brood chamber just like I suspected seeing this phenomena in 3 of the last 5 years., I am convinced that keeping the mite level down is a key ingredient to successful wintering.

This takes us to the beginning of January and my attention goes back to the hive and what do I need to do to keep my hives healthy. I will visit each of my hives and heft them from each side to determine the weight and evaluate honey stores knowing that with brood they will consume much quicker not only to feed themselves but the young larva that they

must feed. I will then take the inner cover and gently lift it to see where the bees are located and whether they are alive and evaluate the ventilation and see if I see moisture buildup on the inner part of the inner cover. I do not remove any frames disturbing the bees causing flight. If the cluster is down low in the top chamber, I put my hand on the frames and see if I sense any heat. If none, I then gently blow air down between the frames and listen for a gentle roar letting me know the bees are alive. I now know what action I must take. If the bees are right at the top coming through the hole in the inner cover, I know that they have eaten their way up through the chamber and need food. I gently lift my inner cover and put on my 2 inch riser. I then place my sugar patty on wax paper to the left or right of the cluster overlapping the cluster by 4 inches so the bees can keep it warm and consume it if needed. There may be honey out on the outer 2 frames on each side but the bees must stay in cluster to keep the brood warm and cannot move six inches away to warm the honey out there. The sugar patty sustains them until warmer temperatures come about with many more bees hatch and the bees can spread the cluster out further or slowly move the cluster out to one side or the other. Also, place a pollen patty on the opposite side of the cluster as they may not be able to get to the natural stored pollen. They cannot continue brood rearing without the protein of pollen. I myself, trap pollen and freeze it and press that into my sugar patty and the bees come running

for the real thing. I experimented putting a pollen patty and the real pollen side by side and the bees used the real pollen leaving the man made patty. However, they will take the pollen patty as the substitute. You should also make sure that the notch in your inner cover is facing down. If you notice moisture build up on the inner cover then you can take 4 popsicle sticks and place them on the rim of the riser and place your inner cover on those. The tiny space will allow the moisture to be vented out by the bees and prevents any robbing on warm days as we move toward spring. I find that this usually takes care of the moisture problem. You may ask how often do I have to check? It depends on the temperature and the amount of brood in the colony. I make a weekly check by gently lifting the inner cover and if $\frac{3}{4}$ or more of the patty is eaten then I put in another patty. Gently smoke the bees so as not to crush bees putting the patty on them. I like to usually do this on a colder day as the bees are not as apt to fly. This winter so far has been one of the mildest winters temperature and snow wise and the sugar patties are lasting longer due to lesser heating needed and honey is still there close to the bee cluster and brood. I continue monitoring the sugar patty and pollen situation until the beginning of March at which time I switch to sugar syrup which simulates nectar flow. The maples will be the first major nectar flow for the bees on warm days. Feeding sugar syrup will continue until the end of March if we have extended cold weather and the bees miss

the maple flow. During my weekly checks I like to take out my reducer or mouse guard and pull out gently the dead bees on the bottom board so they do not block the air flow through the hive and can cause moisture problems. I also like to monitor the brood rearing going on by looking at the number of frames with bees as the winter progresses. This tells me there is a good laying queen in the colony without having to remove frames. A declining number of bees may indicate problems within the colony. There is very little you can do anyway at that point to repair the situation until the warmer weather if the bees make it to that point. What you do not want however is a very weak hive in March that has some type of disease where bees from other hives can rob on a warm day and bring it back to their hive. If you see a really weak hive you may want to make a quick check to see what is wrong and call a mentor or bee inspector for a diagnosis and close up the hive if it has a disease. This will keep your other hives and those of neighbors safe from bringing it back to their hive. Disease often spreads in a hive if you did not catch it in early stages in your fall inspection. Keep in mind that all beekeepers need to do their part to keep our bees healthy. One last thing to keep in mind is that with spring the bears come out of hibernation and are hungry looking for food and the last thing you want is a destroyed hive after a successful wintering season. What a bummer. It has happened to me-depressing! What the goal for all of us is to look at our hive on that first warm

day in March and see our bees coming in and out with greenish maple pollen. What a beautiful sight-exhilarating! So I wish you all the best of luck with your beekeeping! ●

Please Note:

Ken produced a video for Worcester County that he is making available to all of his fellow Massachusetts Beekeepers, so that you can see what he talks about in his article above. The video, along with others (making sugar patties with fresh pollen pressed in with honey) can be found on the WCBA Website.

A New Queen Has Emerged--Local Woman Named MA Honey Queen

Caroline Canterbury, 18, of Montague, was recently awarded 2023 Massachusetts Honey Queen by MASSBEE, the state beekeeping association, after being promoted by the Franklin County Beekeepers Association. This marks the first time in program history that a Honey Queen hailed from the western side of the state. Given that Greenfield is



the home of Lorenzo Langstroth, the “father of modern beekeeping” this is a fitting honor.

Caroline is a homeschooling senior dual-enrolled at Greenfield Community College with plans next year to enroll at University of Massachusetts in Conservation Biology. She is the daughter of Art and Paige Canterbury, who run a small homestead in Montague with a variety of animals, including a 30-colony apiary. This experience along with years of 4-H participation in Franklin County,

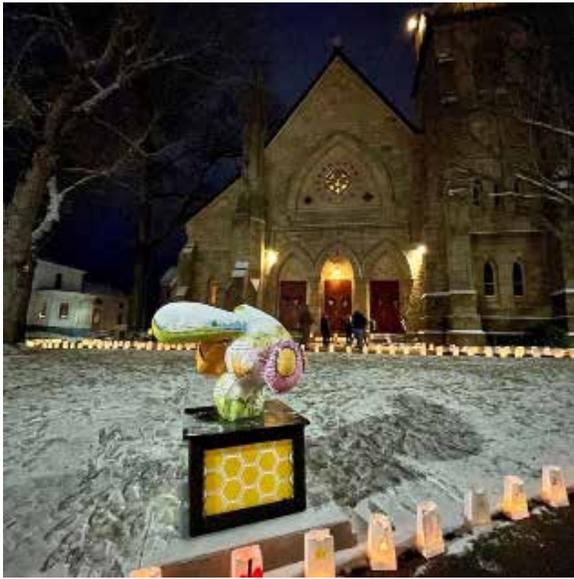
and her work at Magic Wings Butterfly Conservatory as well as the Franklin Country Farm Coop & Exchange, she developed a love of nature and the bigger ecological world. Her passion for biology and ecology is part of the reason Canterbury chose to compete for the Honey Queen

position. “From the food we eat, the medicine we use, and the wild places we enjoy and preserve, honeybees serve us in a multitude of ways. These hardworking insects are also communicating a great deal about the health of our ecosystem, and it is for this reason that I am passionate to advocate for the beekeeping community, farming community, and especially for the honeybee herself. This is a topic in which all people should be interested!”

The Honey Queen Program is not a beauty competition, but rather one of advocacy and education. There are local and state Honey Queens, but also a national Honey Queen.

Each position educates the public about honeybees and beekeeping, honey as a food source, and the necessity of buying local honey given that honey is the third most faked food in the world. These young advocates speak in schools, community groups, attend fairs and other large events where they generate excitement for honey, honeybees, and the beekeeping industry. Requests for a visit from the MA Honey Queen can be made by sending an email to masshoneyqueen23@gmail.com





Honey Bee on display in Greenfield, Massachusetts

Intermediate-level Bee School in Norfolk County

It started around May 2019. For many years I had been ranting about colony losses in Massachusetts being too great to sustain hobby beekeeping. My wife Marian and I had been through 10+ years in beekeeping. We had a few bad years with heavy losses until we started taking mites more seriously and paying more attention to overall health of our bees. We heard and read about the experiences of beekeepers around Massachusetts and Rhode Island, heard reports of losses and increasing loss rates in Massachusetts. I read magazine articles by people like Randy Oliver, Meghan Milbrath and others. It was time to do something.

I wrote an article for the Norfolk County Beekeepers Association (NCBA) newsletter “Toward More Sustainable Beekeeping,” so everyone could read what had been brewing inside my head for a few years. I booked a meeting room at a local Library and sent an invitation to the club, inviting anyone interested to attend a meeting to discuss a change in our ways as a beekeeping community. In the email, I wrote, “I would like NCBA to be the club that does something about the sustainability problem in beekeeping. I have had enough. It’s time for a change. We have made changes in our own apiary practices and I know of others whom have done the same. My dream is that we come up with a program to deal with this problem and then other Associations in Massachusetts will follow suit.” The meeting was attended by around 35 beekeepers, from NCBA’s most experienced beekeepers to some newer members. Most attendees agreed that beekeeping needs to be more sustainable. We agreed that taking care of mites and nutrition, using local nucs and queens or higher quality package bees, raising queens at home and making nucs are definitely desirable and most felt that winter survival rates will improve if we adopt these practices more widely. There was much discussion about how to incorporate these concepts into NCBA education. Many expressed the feeling that further education is key to reinforcing what was learned and possibly forgotten in Introductory Bee School. It was generally agreed that the concepts of

sustainability need to be taught consistently from Introductory Bee School through to advanced education. Our advanced education to this point was here-and-there, a few classes randomly scheduled. We needed more. We decided that an Intermediate Bee School would be established with scheduled classes and prescribed curriculum. We felt that we should charge a small fee for the program. Marian and I agreed to take on the job of putting this together.

In July, I sent an email to the club announcing that Intermediate Bee School would begin sometime in the spring of 2020. I asked for help with planning and teaching, Marian would handle Administration. A core group met on several occasions to discuss curriculum and implementation. We put together a syllabus and a group of teachers from within the club. These people were instrumental in making this program happen.

In January 2020, registration was opened up. Cost for the program would be \$50, a nominal fee to cover class materials. We arranged to hold the classes at the Norfolk Public Library. The presentation room is available to local non-profits at no cost. The club wholeheartedly embraced the idea. Registration closed in early February at 80 attendees, the limit for our meeting space.

The curriculum included the following class topics:

- Principles of Sustainable Beekeeping / Apiary planning and record keeping

- Spring Management of Overwintered colonies /Swarming /Making nucs and splits
- Varroa Mites and their Control
- Other diseases and colony problems
- Practical Genetics for Hobby Beekeepers
- Backyard Queen Rearing
- Making Late Season Nucs for Overwintering
- Advanced Beekeeping Equipment
- Winter Preparation
- Obtaining Bees – what, where, why
- Growing Herbs for Honey Bees and their keepers
- Q&A Session

At the time, we thought that these would be in-person classes. The first class was scheduled for April 22. Then, in March, the COVID-19 pandemic caused all meetings to be cancelled for a still-unknown length of time. People were thinking we'd have to cancel the program, and they were quite disappointed. We scrambled and quickly became familiar with a video conferencing platform called Zoom, new to us at the time, but now a household word. We ran the first class and it seemed to work pretty well. It became apparent that this would be the way classes would be done for a while.

We opened a Zoom account for NCBA with a 100 person limit, and subscribed to a video hosting platform called Vimeo so recordings of the Zoom classes (and club meetings) could be saved and distributed to those who had to miss a class or two. The registration income easily covered these expenses, and these services have become a tremendous asset to the club.

The Zoom platform works well for classes, in some respects better than a live meeting. There's less distraction, it's more comfortable for the presenter, and the recordings can be saved for future viewing. Participants don't have to drive to the meeting on a weeknight or in bad weather. On the downside, there's little social interaction and for the presenter, there's no feedback from the audience. This is something presenters must get used to.

In May, having resigned ourselves to the fact that class would be online for the foreseeable future, we opened the class up to Introductory Bee School graduates as well. Final enrollment was 108 students. I was heartened to know that this number of people desired, and would get, further education on keeping healthy, productive colonies. We upgraded our Zoom account to allow 500 attendees. We had the funds to cover it.

As we went along, I was curious about how we were doing with the program and its intended benefits. In July I asked the class, "What have you done, using the principles in this program, to make your apiary more sustainable?" The answers I received were truly heartwarming. For example:

- "I increased focus on creating good quality late season nucs as well as focus on increasing diversity of genetics by introducing new queens to some of the nucs"
- "I purchased a locally produced overwintered nuc from a NE queen breeder"
- "I split my own hive from a strong overwintered queen to continue her blood lines"
- "I've used my strong hive to create splits, rear my own queens, and maintain good genetics in my apiary. I purchased a single package in 2018 when I began beekeeping and have split, combined, and reared. I hope to not have to ever purchase a package again. Next year, any extra splits that I create can go towards maintaining a healthy apiary and can also be used to support other local beekeepers. I've also gained an expanded understanding of diseases and what actions to take to prevent and remedy maladies of the hive"
- "I monitor the varroa mite population in my hives more often and systematically"
- "I've made my apiary more sustainable by learning how/when to do splits—added 2 new hives this year. I did not have to buy bees this year even though I had lost one over the past winter. I have also just become a better beekeeper through taking better notes, reading more from suggested books/articles by others in the class, and being

more attentive and present with the activity going on in and around my hives, taking action when needed”

There were many more. It was working! Class attendees could see the results - they were making their apiaries more sustainable and enjoying beekeeping even more. Given that, we decided to continue this program into the future.

As we started making plans for 2021, the second year of the program, I emailed to the group asking for feedback on how the program could be improved. The comments were all positive, with requests for other topics such as maximizing honey production, more on record keeping, more or less of this or that. I made some changes to the curriculum, but instead of changing the topics drastically (the first year was so well received), I decided to bring in some instructors from outside of NCBA, to provide a different take on the topics considered to be at the core of the program. These would be put in place of some of the classes I was teaching, so it lessens the load I have to carry and places some of it in the hands of even more capable speakers. We had generated a lot of revenue in the first year so we have the resources to put into the program.

We have had nationally known speakers like Dan Conlon, Steve Repasky, and Landi Simone to complement our regular staff of local heroes Bob Hickey, Cindy Holt, Jane Sloboda, Janice and Michael Barczys. I do several classes myself. I purchased a subscription to groups.io, sort of

an expanded version of Google groups, which will give us email, discussion, file sharing, calendaring, and more. I can add members directly and they just confirm registration. This will allow for discussion and information sharing between classes. The Zoom links are in the calendar on the group website.

By now, we are fully entrenched in the age of virtual meetings, and without geographical constraints, I thought that we might find beekeepers outside of NCBA who would be interested in the program, and that interest might be piqued in other clubs to start similar programs in the future. We invite beekeepers from all over Massachusetts and beyond to attend. Attendance from outside of NCBA has been good, and I have had inquiries from other clubs.

So, we're going to keep it going in 2023. We have Erin Forbes (now Evans) on board to start the program on March 1. Classes will be held every 2 weeks for 8 weeks, with 2 additional classes in the fall, and a question and answer session. Syllabus and registration information will be available soon. All classes will be held via Zoom to allow for attendees and speakers from outside of our local area.

I would like to see programs like this established in other beekeeping associations across Massachusetts and beyond. With a dedicated group of volunteers, and an attentive, willing group of students, great strides can be made in improving sustainability and the overall health of managed honey bee colonies.

If anyone is interested in starting a program like this, contact me, I'm happy to help

-Ed Szymanski ●

Time to Renew!

MassBee Membership runs from January through December 31st

Annual membership dues for the Massachusetts Beekeepers Association are either \$15.00 for an individual, \$25.00 for a family, or \$50.00 for an organization (such as a county beekeeping club).



Bee Suits for Kids Program Helps Engage the Next Generation of Beekeepers

By Lisa Maguire, PCBA President

Since 2017, PCBA member and Director-At-Large Ken Pearl has been cultivating the first “Bee Suits for Kids” program in the Association. Inspired by his own grandchildren, Ken understood the desire for children to get involved and learn alongside family members at a young age. He brought the idea to the executive board, who immediately agreed that it is our duty and in our collective best interest to start educating the next generation of beekeepers as part of the club’s engagement.

A practical concern in accommodating kids is the need to update bee suits regularly, as children grow so rapidly. Ken’s idea was to invest in various youth-sized bee suits with veils and gloves that could be loaned out to club members for the season. The next season, the member could return for the correct sized suit as their children grow, taking the initial costs of protective gear off the member and encouraging more youth to participate.

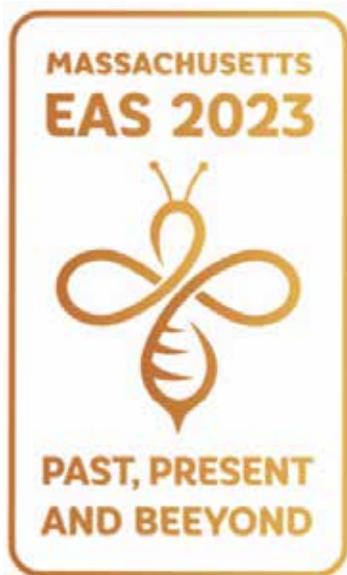
After five years, PCBA has approximately 30 bee suits for kids to loan to club member families. As word got out, members with gently used kids’ suits have donated them to the club program. A kids’ bee suit at the local Savers may seem like a fun Halloween costume, but it may not get the use it could when available to the right demographic: current beekeepers.

Now, a few years in, PCBA has ideas to expand the kids’ suits program, as the interest is consistent and the feedback is positive. Ken hopes to

expand to include a few larger youth suits, and also inspector jackets and veils for the pre-teen or teenager who is just trying out beekeeping and may not be fully sure of their long-term commitment. Again, this is one way to trial beekeeping while keeping costs down for those practicing at the hobby.

Ken believes that children who are exposed to beekeeping become our future beekeepers and advocates; this early encouragement will pay dividends in our community and greater society. PCBA has plans to host a youth beekeeping workshop this spring at the Hanson, MA clubhouse, to help familiarize kids with parts of the hive, types of bees, and their functions.

Recently, several other county associations have reached out to Ken due to his success in starting their own bee suits for kids program. Essex County has just purchased 7 youth bee suits to begin a Bee Suits for Kids program. This is just one way Ken operates with the mindset of paying it forward, with impacts reaching far beyond the boundaries of Plymouth County. Ken is available at (339) 832-9239 if anyone would like to discuss a Bee Suits for Kids program or would like to donate youth bee suits or gear. His legacy would be complete if every county association had a similar program. He is willing to talk to anyone to help get started! ●



If you are looking to increase your beekeeping knowledge and have a lot of fun with like-minded beekeepers, then please consider attending the Eastern Apicultural Society's (EAS) summer 2023

conference. The location of the conference rotates between member states and this coming summer it will be held in our state at the University of Massachusetts Amherst campus from July 31-August 4. Here is an update from the EAS Winter Journal that I wrote.

After a long couple of years navigating in a world dominated by Covid-19 protocols, I am very pleased to report that the Massachusetts EAS 2023 planning committee is well on its way to finalizing its plans for this summer's conference at the University of Massachusetts Amherst. It is such an honor to host this prestigious conference in the Commonwealth of Massachusetts. The EAS team and Massachusetts planning committee have put together an enjoyable and informative program that is worthy of your time and expense. There is something planned for beekeepers of all

experience levels.

The theme of the EAS 2023 conference is "Past, Present, and Beyond". Massachusetts is rich in its beekeeping history. Reverend Lorenzo Langstroth lived a short distance (30-minute drive) from the UMASS Amherst campus in Greenfield MA. Langstroth was pastor of the Second Congregational Church from 1840 to-1858 and is known worldwide as the "Father of Modern Beekeeping". Come walk the same Greenfield city center streets where Langstroth preached, wrote, and invented the moveable frame hive. Reverend Langstroth is scheduled to be joining us at the conference.

In addition to the outstanding classroom sessions and the conference keynote speakers, there will be four exciting workshops:

- Massachusetts full-time state apiary inspector and professional photographer Paul Tessier will conduct an exciting photography workshop. Paul will share his tips for "creating stunning portraits and intimate images that reveal the fascinating lives of honeybees". Be sure to bring your camera.
- EAS Apiary Bee Wrangler Jennifer Keller (NCSU) will lead a hands-on queen-rearing program that focuses on techniques that can be used to raise
- queens for hobbyists.
- UMass Dining Director of Bakery Operations and Executive Pastry Chef Pamela Adams will share her tips on delicious baking treats with honey. The

University of Massachusetts and Chef Adams have won numerous awards for their culinary endeavors.

- The Massachusetts State Chief Apiary Inspector Dr. Kim Skyrm is excited to run our honeybee microscopy course. Learn how to observe the fascinating inner workings of the honeybee with Dr. Skyrm and his team.

The rooming accommodations are numerous. The Campus Center Hotel is located on the upper floors of the EAS conference headquarters which makes it incredibly accessible, book early to get the special EAS rate. Conference rates for nearby hotels and motels are being negotiated. Selected air conditioned UMASS dormitories are set up in an apartment-style suite, containing four separate single dorm rooms that share a kitchen setup, a living room, and two bathrooms. There are several campgrounds in the area as well.

Beekeepers like to eat and-you won't be disappointed. The UMASS Dining Services has been rated #1 in the Princeton Review for the last nine years. The many on-campus Food Courts are available to all conference attendees.

Please get your honey ready for the prestigious EAS Honey Show competition. The Honey Show committee will be offering a Tuesday afternoon workshop "How to Judge Honey". Learn what the judges are looking for and give it a try in this hands-on workshop.

Western Massachusetts has quite a bit to offer. Amherst is home to one of the most scenic

areas in the state - the Connecticut River Valley. Bring your hiking boots and tackle a portion of the North Woods New England Trail. Visit the various museums, tourist attractions, and artisan shops in the surrounding communities.

If flying, the closest airport is Bradley International Airport in the neighboring state of Connecticut, its only forty-five minutes away. Airport to conference transportation is available.

Mark your calendar for your Past Present and Beyond EAS 2023 Annual Conference on July 31- August 4 th . Come for a day, come for the short course, come for the conference, or better yet come for the entire week.

Immerse yourself in Everything Honeybee - EAS style,
Mary Duanem President EAS ●

MassBee 03/18 Spring Meeting Speakers

Dr. David Peck

Extended-release oxalic acid and varroa mite history, biology, and year-round management.

Dr. Peck is the Director of Research and Education at Betterbee in Greenwich, NY, where he assists in product development and research, and also teaches classes and develops scientifically-sound educational materials. His doctoral work in Cornell University's Department of Neurobiology and Behavior was supervised by Professor Tom Seeley. His dissertation research focused on the transmission of mites between bee colonies, as well as the mite-resistance traits of the untreated honey bees living in Cornell's Arnot Forest.

Dr. Jenny VanWyk

Talk Title TBA

Jenny joined the UMass Amherst Dept. of Biology's Adler lab in May 2018, after completing her PhD with Neal Williams at UC Davis where she conducted research on pollinator community ecology, restoration, and plant insect interactions. At UMass Amherst, she is leading our portion of the NIH-funded Ecology and Evolution of Infectious Disease grant with Scott McArt (Cornell) as lead PI, testing models predicting disease transmission via manipulations of bee and floral traits.

Seanne Clemente, PHD Candidate

Assessing the effects of different basil varieties and their chemicals on bumble bee infection

Seanne is studying how pollinator disease affects the evolution of floral chemical traits. He has been awarded a Spaulding-Smith fellowship and a Lotta Crabtree Fellowship, and received a NSF GRFP and a Ford Foundation Fellowship (*declined since he couldn't accept both*) at the end of his first year.

Dr. Kim Skyrn

He is the MA State Apiarist/Chief Apiary Inspector of the MA Department of Agricultural Resources (MDAR) and is the past President of the Apiary Inspectors of America (AIA). Kim is a scientist by training and a hobby beekeeper driven by an intense love of bees. Kim will give a presentation on MDAR activities for 2023.

**Worcester County & Hampden County Beekeepers Associations
present **The Annual Big Name Speakers Meeting for All Beekeepers
and Others****

<https://wcbamembers.wildapricot.org/event-5118703>

March 4, 2023 (Saturday), 8:00 AM-3:30 PM

LIFESONG CHURCH, 65 Gilmore Drive, Sutton, MA (RTE 146 South, Take North Main Street Northbridge/Sutton exit.)

The Worcester County and Hampden County beekeepers are once again sponsoring their annual Big Name Speakers Program bringing in two of the nation's top apicultural scientists to speak on and enhance our knowledge of honeybees in order allow us to become better beekeepers by learning about the new research on honeybees. We have Dr Jeff Pettis, and Dr Geoffrey Williams each presenting 2 topics on the latest research on honeybees so that we can better manage your colonies whether it be 1 colony or hundreds of colonies. You can see the titles and descriptions of the talks below that certainly cover the knowledge base that we as beekeepers need. **There is no cost with the exception of the \$13 dollar luncheon catered by Buggy Whip Catering (description below).** We have chosen topics which brand new beekeepers and longtime beekeepers will find applicable in their beekeeping management. I highly recommend that you attend this meeting on Saturday, March 4, for the sake of your bees if nothing else! They certainly need your management skills on mites, pesticide effects, and brood diseases more than ever before which the talks focus on. Hope to see you there. –Ken Warchol

8:00am-9:00am COFFEE and BEE TALK

9:00am-9:15am WELCOME by Doug Patridge & Mark Lantzakis

9:15am-10:30am SPEAKER: Dr. Jeff Pettis: *AFB, EFB, SHB, Be Aware of the B's!*

Beekeepers face many challenges and varroa is a main concern. However, the brood diseases of AFB and EFB are having a major impact on beekeeping and EFB is on the rise globally. We will discuss the brood diseases and new findings along with a new corner, the small hive beetle, as challenges to

our bees but all can be managed if we learn to recognize the signs and symptoms of the three B's.

10:45am-Noon SPEAKER: Dr. Geoffrey Williams, *Honey bee reproductive toxicology*. I will introduce the three types of honeybees in the colony, then detail several projects my lab has worked on to investigate how neonicotinoid used widely can affect aspects of honey bee reproduction-from egg laying by the queen to drone sperm production to worker hypopharyngeal glands. I will also speak about how neonicotinoids can interact with varroa mites

Noon-1:00pm LUNCH

1:00pm-2:15pm SPEAKER: Dr. Jeff Pettis: *Climate Change and Beekeeping: The Challenges we Face*. This talk will explore the many ways that climate change is affecting beekeeping today and in the near future. Drought and inconsistent honey flows are only two examples, but others will be presented as well. Finally, a study will be discussed that details the role of rising CO2 levels on pollen quality and what that means for bee health.

2:15pm-3:30pm SPEAKER: Dr. Geoffrey Williams, *Integrated Pest Management for Varroa Mites*. Mainly using the Bee Informed Partnership research data, I will focus on the four pillars of Varroa IPM-understanding the mite, monitoring it, prevention, and control getting into detail on these issues.

3:30PM-CLOSING & RAFFLE (you must be present to win)

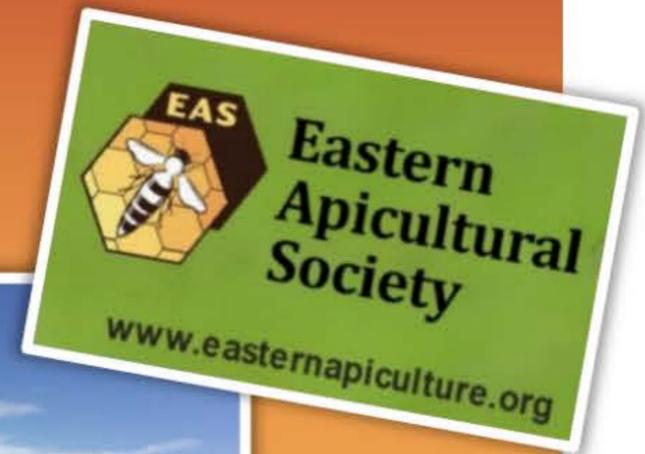
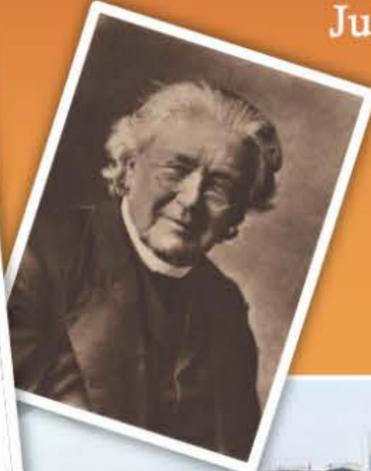
As you can see, the key issues in colony management are being covered in these talks to make you a successful beekeeper whether you are a new beekeeper or a longtime beekeeper. Do not miss this one and meet beekeepers from throughout the Northeast and talk to them over coffee, at lunch or after the meeting.

LUNCH MENU: Various rolls and breads, luncheon meats and cheeses, condiments, potato salad, garden salad, chips, cookie and water or coffee.

Lunch order must be received by February 26th. Pay online with Mastercard, Visa or Discover (or print mail in form) from this link: <https://wcbamembers.wildapricot.org/event-5118703>

EAS MA 2023

July 31 – Aug 4, 2023



68th Annual Short Course and Conference* University of Massachusetts, Amherst MA

Speakers:

- Dr. Samuel Ramsey
 - Dr. Judy Wu-Smart
 - Dr. Cameron Jack
 - Dr. Tammy Horn-Potter
 - Paul Kelly
 - Dr. Tom Seeley
- and more...

Workshops:

- Honey Judging
- Bees Under the Microscope
- Lotions and Potions
- Cooking with honey

EAS Master Beekeeping Program Testing & Certification

Short Course Tracks:

- Beginner
- Intermediate
- Advanced
- Queen Rearing and Colony Management
- Hands-on beekeeping in the State Apiary

Special Events:

- Field Trips
- Auctions
- Honey Show
- Bee Olympics
- Special Visit by Lorenzo Langstroth

Major Beekeeping Suppliers and Artisans



Nature, Culture, Food and Entertainment

Flagship campus of the University of Massachusetts system and nationally ranked public research university.

Downtown Amherst - Walkable mile of cuisine, culture, art, and independent film at the center of legendary trail networks for biking, hiking, arts, and literature.

90 miles from Boston and 175 miles from New York City. 64 miles to Tanglewood summer home of the Boston Symphony Orchestra.



*Watch for Updates on the EAS Website:
<https://easternapiculture.org/conference/eas-2023/>

APIARY PROGRAM

Kim Skyrn, Ph.D.

Honey Beekeeping in the Commonwealth

It is estimated that approximately 6-6,500 resident and migratory honey beekeepers currently maintain over 40-45,000 colonies in Massachusetts throughout the year. These numbers vary annually due to winter mortality rates, fluctuations in the numbers of hobby beekeepers given the continued increased interest and challenges of honey beekeeping and pollination contracts. While the largest volume of colonies belongs to commercial beekeepers, the Commonwealth is mainly comprised of hobby and sideliner beekeepers who maintain less than 100 colonies. A total of 203 apiaries were voluntarily registered with Massachusetts Department of Agricultural Resources (MDAR) Apiary Program in 2022 bringing the grand total presently to 1,132 registered apiaries with 2,400 colonies.

APIARY INSPECTION

The MDAR Apiary Program is charged with regulating beekeeping and honey bee health through the enforcement of the statutes (MGL 128 32-36B, 38) and regulations (330 CMR 8.00 Apiary Inspection Regulations). Honey bee health inspections are conducted by the Apiary Program Team as visits by Apiary Inspectors to apiaries containing honey bees or used equipment located in the Commonwealth. Inspections are performed for regulatory purposes at the discretion of the inspectors, as certification for interstate movement, for mosquito control monitoring, during emergencies and routinely upon beekeeper request. Live, declining, and expired honey bee colonies, packages, nucleus colonies (nucs) and used equipment are visually inspected for the presence of pests, parasites, pathogens, pesticides, and invasive species. The goal of such inspections is to detect, mitigate, manage, and ultimately suppress the occurrence and spread of these agents contagious and infectious disease. Inspectors routinely take samples during these inspections and analysis is performed by certified diagnostic labs.

In 2022, a total of 528 inspection requests were received and of these 371 were completed leaving 157 unfilled inspection requests. The unfilled inspection requests consisted of 93 that were not able to be inspected because of the inspection team availability, 29 were canceled by the beekeeper, and 35 did not respond to their request to schedule an inspection with an inspector. An additional 60 inspections were performed for regulatory purposes and not associated with an inspection request. The team of four inspectors visited 14 counties, 246 cities/towns, 408 apiaries and inspected 4,512 honey bee colonies. Of these, 142 inspections were for *Dead-out* and used equipment. The main cause of death for the Dead-outs was determined to be related to AFB, Varroa Mites and associated viruses, or *Nosema* spp. This information was shared with beekeepers as an educational tool. Inspectors also conducted import inspections of 21 shipments of package bees (14 suppliers, 8,230 imported packages total), 18 shipments of nucs (14 suppliers, 1,601 inspected from 4,154 imported nucs total) and 1,236 colonies used for cranberry pollination (5 commercial beekeepers, 16 bogs) to ensure regulatory compliance. A total of 354 samples were taken during inspections and sent to labs for analysis. Findings from visual inspections, sampling and lab analysis are as follows:

Type	Honey Bee Health Issue	Total Colonies Detected
Bacteria	American Foulbrood (AFB)	7 (apiaries)
	European Foulbrood (EFB)	351
Fungi	Chalkbrood	50
	Nosema spp	109

Viruses	Parasitic Mite Syndrome (PMS)/Idiopathic Brood Disease Syndrome (IBDS)/Snot Brood/Varroosis	41
	Sacbrood Virus (SBV)	435
	Deformed Wing Virus (DWV)	355
	Black Queen Cell Virus (BQCV)	174
	Chronic Bee Paralysis Virus (CBPV)	9
Pests/Predators	Small Hive Beetle (SHB)	9
	Wax Moth	14
	Mice	8
	Bear Damage	2
	Africanized Honey Bees (AHB)	0
Management	Queen issues	30
Pesticides	Bee Kills	2
TOTAL		1,596 (35% of total inspected colonies)

The Apiary Program Team had limited availability to conduct routine health inspections this year due to a surge in AFB cases which resulted in the reallocation of time and resources to these investigations. Inspections will resume for these cases as needed for follow up in 2023. A total of 4 reports were received of aggressive colony behavior potentially due to the presence of Africanized Honey Bees (AHB). After investigation, only a single sample was submitted for lab analysis and found to be negative for AHB. The Apiary Program Team also received 20 Bee Kill complaints and investigated 5 cases collaboratively with the MDAR Pesticide Enforcement Team. A total of 2 of these cases were confirmed to have pesticides in samples and at the level detected, these chemicals were found to be the cause of the observed bee death.

EDUCATION

The MDAR Apiary Program Team continued to provide outreach educational programming and extension to stakeholders virtually and in person in 2022. The Apiary Program team created, led, and coordinated a total of 64 educational outreach programs (33 virtual, 33 in-person, some were offered in both format at same time) consisting of 202.5 instructional hours that reached 5,525 attendees from all over the United States. One series of unique virtual events focused for beekeepers in the Northeast, the *New England (+New York) Honey Bee Update Lunch and Learn* (created in 2020 as a response to COVID-19) was offered again this year. This series is particularly popular since it offers a regional update on honey bee health and a facilitated discussion with beekeepers between the collaborative of apiary inspectors from New England and New York states. The Apiary Program was also invited by EPA to offer a webinar on Varroa Mite IPM which was well received (728 attendees).

New this year, the Apiary Program was finally able to fulfill its commitment to veterinary education (arranged in 2020 and postponed due to COVID-19) through a collaboration with the Cummings School of Veterinary Medicine at Tufts University. A total of 5 senior students worked alongside and learned from the Apiary Program Inspection Team for a week to gain exposure to the field of apiculture, bee disease, and hands-on techniques related to inspecting honey bee colonies. Finally, the Apiary Program (e)Mailing List created in 2018 in response to the need for communication with the growing beekeeper population added 162 members in 2022 and now has a total of 962 members. This list along with the registry and inspection database allows for a comprehensive emailing list to communicate with stakeholders.

HONEY BEE HEALTH SURVEY

The 2021-2022 Massachusetts Bee Aware Honey Bee Health Survey had 706 beekeeper responses managing 4,247 hives with a reported 28% overall total loss and 36% average loss of honey bee colonies in the Commonwealth. Since 2015/2016, this health survey has had a total of 3,162 beekeeper responses allowing for an important tool to gather local data on honey bee health as well as gaining vital feedback regarding beekeeper needs and programmatic focus. Results of the survey indicate that beekeepers attributed the top causes of colony losses this year to Varroa mites (22%), queen loss/failure (20%), starvation (17%) and environmental factors/climate change (17%). Beekeepers also reported that the single greatest problem affecting beekeepers in the Commonwealth was Varroa mites (84%), pesticides (47%), beekeeper mismanagement (39%) and environmental factors/climate change (34%).

STATE APIARIES

The MDAR Apiary Program Inspection Team also managed the State Apiary locations in Amherst and Danvers, MA which are comprised of 4-20 active honey bee colonies that serve as outdoor classrooms for hands-on demonstrations and education. A total of 12 in-person educational programs with 375 attendees were held at the State Apiaries. Honey harvested from these colonies consisted of a total of 222lbs of which all was donated to The Greater Boston Food Bank.

RESEARCH AND MONITORING

The MDAR Apiary Program Team also participated in the USDA-APHIS National Honey Bee Survey which involved visiting 9 counties, 18 towns, 19 beekeepers, and 24 apiaries consisting of 985 colonies of which 190 were sampled for a total of 58 submitted samples. The program team also collected 17 European Foulbrood (EFB) swab samples for researchers at the University of Saskatchewan as part of their evaluation of this bacterial disease in commercial beekeepers who provide pollination services.