OCTOBER 2023

MCBA NEWSLETTER

MONTGOMERY COUNTY BEEKEEPERS ASSOCIATION

NOTE FROM THE PRESIDENT GREG LEHMAN

Dear MCBA members,

It's with a bit of sadness that I'm announcing my resignation from the presidency of MCBA. I will be staying on the board, but Regina Rhoa is going to be at the helm. Trying to navigate the club out of the pandemic has not been easy, but I feel the board has never been stronger. Since starting on the board in 2016, I've seen the commitment of the volunteers grow significantly. I am blown away by how much they get accomplished each and every month, and by their dedication and love for the bees! This club would never have lasted 100+ years without all of the selfless acts from volunteers.

My parting wish: As humans, it is unfortunate that our nature is to focus on the negative. (It's simply a product of our evolution. Since long ago something negative meant the difference between life and death, and therefore it needed to be remembered.) With the exception of a handful of members (whom I cherish), the majority of feedback I got (albeit rare) was just that - negative. I'd love to see the members of MCBA take a more positive approach. Let Regina know what you like! Let her know what works. And if you have a critique, accompany it with a solution on how to better the club. Believe it or not, the board needs feedback and really does want it! It's the only way we can continue growing and bettering this club for another 100 years.

Cheers y'all. Greg

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JIM BOBB OBITUARY

BY REGINA RHOA, MCBA VICE PRESIDENT

I was sad to hear that Jim Bobb passed away on Sept 17, 2023 at his home following a valiant fight these past several months. I met him my first year beekeeping when I took his beginner's beekeeping class.Jim became a mentor but also a good friend. I used to help him in the spring with managing his nucs. While I have known Jim for a short 8 years, his Facebook page shows a list of friends that are the 'who's who' in the beekeeping world.

When most beekeepers in Jim's local area think of him, they think of spring packages and nucs for sale, but he was much more than that.



Jim managed more than 100 hives in public and private gardens in Southeastern Pennsylvania over the last decades.Jim's hives, whether for honey production or educational demonstration, could be found at the Pennypack Ecological Restoration Trust, Wissahickon Valley Watershed Association, and Academy of Natural Sciences, as well as Willow Creek Orchards in Collegeville, the Barnes Foundation, Longwood Gardens, and the Morris Arboretum of the University of Pennsylvania. Jim also managed hives on his 14 acres home known as Worcester Honey Farms.

He taught beekeeping classes and symposiums. He always enjoyed teaching beginners how to install packages when they picked up their packages of bees, which Jim brought in from the south every spring at his home at Peter Wentz Farmstead. He was a Master Gardener and has given many lectures on the relationship between bees and plants in Botanical Gardens, conducted programs with the Pennsylvania Horticulture Society and has been an instructor at Longwood Gardens where he had an observation hive mounted in one of the tree houses for several years. In addition to workshops, he has contributed articles on bee conservation such as "Where are the bees" to the Hardy Plant Society/Mid-Atlantic group and has worked with the Bee Informed Partnership on bee survival surveys.

Jim grew up on his farm that has been in his family from 1790 to 1976. In 1976 the farm became a park, known now as the Peter Wentz Farmstead.The farm served as George Washington's headquarters in 1777. Jim lived across the street, in a house his grandfather built in 1969.

Jim, a math and physics major at Dickinson College in Carlisle, earned a master's degree in math at the University of California at Berkeley. After college he had a daytime job at a global computer-software firm in San Francisco where he traveled all over the world. At night he had part-ownership of a Brazilian nightclub called Bahia Tropical. Since his club introduced the Brazilian dance, the Lambada, to the United States, it earned him spots on Good Morning America and Lifestyles of the Rich and Famous.

JIM BOBB OBITUARY

BY REGINA RHOA, MCBA VICE PRESIDENT

In 1995 Jim sold his business and began a new chapter of his life, moving back to his family farm. He traveled abroad studying art and horticulture, eventually becoming a master gardener and instructor at the Barnes Foundation and Longwood Gardens.

Jim is a past president of the Montgomery County Beekeepers Association (MCBA), which is in his local county, and as past president of the Pennsylvania State Beekeeper's Association (PSBA). He served as Eastern Apiculture Society (EAS) President, the EAS Chairman for 8 years, where this year he won the Divelbiss Award which is given to a person who, over a period of years, has educated the non-beekeeping public as well as beekeepers in the importance of honey bees. He also served as a Director within the American Bee Federation.

Jim spent time in South Africa learning about the Cape honey bee. I remember Steve Repaksy, former PSBA President, telling of the practical jokes Jim would play on a trip they took together with other beekeepers to South Africa to study bees. Jim by most was a very quiet shy person, but if you knew Jim, he always had that devilish mischievous sparkle in his eyes.

By all those who have known Jim, he will be sorely missed but he left behind a legacy.

Service Details

Friends are invited to join the family for a memorial service and to pay their respects.

Saturday, 7 October 2023 @ 10AM R.L Williams, Jr. Funeral Home 3440 Skippack Pike Cedars, PA 19423

https://www.rlwilliamsfuneralhome.com/obituaries/James-Bobb?obId=29315454

ANNOUNCEMENTS/EVENTS

2023 MCBA Fall Banquet

November 11, 2023 5PM-10PM

NOTE: Venue change - this year the Banquet is being held at St. Peters Lutheran Church in Hilltown (1530 Augsburg Drive) Be on the lookout for additional details and registration!

MCBA Board of Directors - Elections

Voting for the open Board of Directors positions is now OPEN. You should have received an email directing you to the anonymous voting page on our MCBA website - be sure to cast your votes by October 31st.

Fall Wax Dipping Event

The MCBA fall wax dipping event is scheduled for Saturday, October 14th from 9:00AM to 4:00PM. **Please note** that there is a sign up associated, and availability is currently running low! To sign up, click <u>HERE</u>

There is also an address change - now located at 113 Forrest Road; Telford, PA

Additionally, volunteers are always needed to make this event run smoothly; to sign up as a volunteer, click <u>HERE</u> <u>Wax Dipping Details</u>

Fall PSBA Conference October 20-22

Ramada by Wyndham State College Hotel & Conference Center Click <u>HERE</u> for registration details

MCBA - OCTOBER 2023

WHAT MAKES A WINTER BEE

Regina Rhoa

While recently reading an article in American Bee Journal (ABJ) that was published in the August 2023 issue call "What are Winter Bees and Why Do They Matter" by Gard W Otis, PhD, Emeritus Professor at University of Guelph. It was an eye-opening article. Over the years, I have spoken with many members and have encouraged them to read both American Bee Journal and Bee Culture, our two major bee magazines published in this country. People provide many excuses as to why they don't read, 'I don't have time', the 'articles are too advanced for me' or they just shrug their shoulders. Since starting beekeeping 8 years ago, I have been reading bee journals. We were provided with some free copies during the beginner class taken with the MCBA.So maybe I am a bee geek, my science training, or the need to know more. In the beginning it did not all make sense, but the more I read, it started to make sense. Clarence Collison's column in Bee Culture is by far the most scientific. When I read his articles, I generally get about a third to halfway through the article and then it got even too scientific for me. But the more often I read it, the easier it gets each time. So, I encourage you to keep reading, not only to learn about honey bees but to keep up with current topics. So let me get off my soapbox and dive right in.

Before reviewing the article from ABJ, I would like to first give you a little background on the nurse bee lifecycle and why controlling varroa mites is important.

As we all learn as beginners, winter bees are different than summer bees. Summer bees live 6 weeks while winter bees live 7 months, some have been reported to live 304 days!!

As we know, the varroa destructor, can wreak havoc on our bees. The female mite enters the brood cell just before capping and submerges herself in the brood food under the larva. When the bee larva is finished feeding, the mite becomes active. She uses her mouth parts to pierce the larva and creates a feeding tube. She first lays a male egg followed by a female egg every 30 hours. As the new female mites mature, they mate with the male mite. While the mites are in the cell, they feed on the developing bee through the feeding tube and transmit viruses. These viruses seriously affect the longevity of the emerging bee. When the bee emerges, the mature female mites leave the cell, but the male and immature mites do not survive. After the cells are capped, the workers develop for 12 days while a drone develops for 16 days. The mite can produce 2 fertile mites in a drone cell versus 1 in a worker cell, thus preferring drone cells. The mite lives outside of the cell riding on the bees feeding on fat bodies for 5-11 days, then enter a new cell.

As the bee population increases in the spring and early summer, the increase in bee population well outpaces the mite population. If the mites are not controlled as the bee population decreases in late summer into fall, the mites will outpace the bees. It is important to look for signs of mite infestation and their associated diseases such as Deformed Wing Virus (DMW), Parasitic Mite Syndrome (PMS) or Israel Acute Paralysis Virus (IAPV). Just because you

WHAT MAKES A WINTER BEE (CONT'D)

can't see the mites or see diseases, doesn't mean they are not there. Remember 70% of the mites are under the cappings feeding on the larvae/pupae. I highly recommend looking at the Penn State Extension website for identifying honey bee diseases <u>https://extension.psu.edu/a-quick-reference-guide-to-honey-bee-parasites-pests-predators-and-diseases</u>. Also, the Honeybee Health Coalition (HBHC) Website for their Tools for Varroa Management Guide <u>https://honeybeehealthcoalition.org/wp-content/uploads/2022/08/HBHC-Guide_Varroa-Mgmt_8thEd-082422.pdf</u> for testing for mite counts.

So why do I go through all this leading up to the topic. In our area, the bees start raising winter bees in late September and early October. If we do not control our mites, the colony will have no way to raise healthy winter bees. It is too late to start controlling mites in early September since the diseases mites can spread have already affected the colony. We should be monitoring for mites throughout the bee season (May to October). We should be treating when the mite threshold has been reached per the HBHC guide.

So, what makes a winter bee. A winter bee is raised after the fall foraging season is over.

All nurse bees when emerged from their cell have low amounts of juvenile hormone (JH). JH is a chemical that is produced by endocrine glands behind the bee's brain. As the bee ages, the concentration of JH increases in the bee's hemolymph (bee blood) which causes the behavior of the nurse bee to transition to a foraging bee.Her first 2-8 days as a nurse bee, she digests a lot of pollen (protein) which develops her mandibular and hypopharyngeal glands. The levels of the protein vitellogenin (Vg) and other proteins in the bee's mandibular and hypopharyngeal glands allows the nurse bee to produce brood food known as royal jelly, which she uses to feed larvae.Since the winter bees are raised when the foraging and brood rearing season is over, they never transition to foragers and generally feed minimal larvae, thus still containing high amount of Vg and low amount. In addition, the winter bees have enlarged hypopharyngeal glands and fat bodies. The Vg is a protein that helps honey bees fight immunity.

If the bee larva/pupa are attacked by varroa during development, this impacts their Vg levels. In addition, as we have learned from Dr. Samuel Ramsey, the mite feeds on the honey bee's fat bodies. If we do not produce strong winter bees by keeping our varroa low, the winter bees being produced will not be well fed, will have diseases, impacted fat bodies, thus not last through the winter. It is not something we can always readily see. When our colonies collapse, we will be wondering what happened.

So after all that history, this is the interesting part of the article. I always thought the winter bees were produced by the bees getting larger amounts of protein from the pollen, since the nurse bees consume a lot of pollen their first week after emerging from their cell. I know a lot of beekeepers that feed protein patties in the fall. Below is a summary of the article written, the italicized portion is the exact wording.

WHAT MAKES A WINTER BEE (CONT'D)

One of Dr. Otis' undergraduate students did a study testing different levels of pollen given to the bees while raising winter bees for her PhD. She tested 15 colonies at time of the year that they were rearing winter bees. She divided the hive into 3 groups of 5 hives each. Group 1 had pollen traps that reduced their amount of pollen (pollen traps reduced pollen by 60-90%). Group 2 received extra pollen from pollen patties made from pollen collected from group one. Group 3 was allowed to forage naturally on fall plants blooming at the time. She tagged 100 bees at 12 day intervals from late August until brood rearing stopped. Some of the results were expected. Nearly 100% of the early bees tagged became summer bees and died by late November. This was expected.

More of the interest was in the results of the pollen treatment. Group 1, which had reduced pollen, had higher percentage of the bees become winter bees than the pollen supplemented hives. Due to poor foraging condition, group 3 which were allowed to forage naturally, behaved similar to group 1 with reduced pollen. The pollen reduced colonies reared less brood in total and ceased brood rearing earlier in the fall in contrast to pollen supplemented colonies. The pollen supplemented colonies reared 40% more brood, however because of high proportion of the additional bees were summer bees, which died before onset of winter. Since they pollen supplemented colonies reared more brood, the onset of development of winter bees were delayed. The study suggests that the dwindling pollen resources in the environment is a cue for bees to start rearing winter bees. Most strikingly, the estimates of winter populations of the colonies did not differ between treatments. The social interactions and self-regulating systems of honey bees resulted in colonies of the same size. Moreover, the winter bees in the two treatments were equivalent physiologically. They were packed with similar amounts of storage proteins, had the same winter survival, and were capable of rearing the same number of new larvae the next spring.

So, the bottom line, we should rear healthy bees with low mite counts. A lot of beekeepers wait too long into the late summer and fall to manage mites and their associated diseases. If we see the bees need pollen for short periods of time, we can supplement, but it is not needed to create winter bees. So, it is not the pollen that creates the winter bees, but the lack of pollen in the landscape that shifts the bee colony as a whole to produce winter bees. The bees sequester nutrients to become winter bees when the supply of incoming pollen diminishes and brood rearing stops.

THE BEGINNERS' CORNER

Fall Preparation Beyond the Honeybee

Hello again, fellow beginner beekeepers! Fall is finally here. While the beekeeping season is not yet at a close (and there is still plenty to do), I wanted to share an outside-the-box perspective this month. If you've followed along these newsletters the last couple of years, you may recall a particular drum being beaten - that we beekeepers are proud stewards of our environment - supporters of native landscapes, pollinators, and wildlife well beyond the honeybee. As such, here are some thoughts on how you can prepare for winter in ways that will sustain natural life on whatever slice of Earth you occupy.

Fall is my favorite time of year. As an avid gardener, I would be lying if I didn't say all the outdoor maintenance leads to some "gardening fatigue" when the peak summer temperatures persist. But the crisp autumn mornings, the mild afternoons, and the changing of the season offer invigoration. I find my motivation to resume my outdoor activities completely restored. And truthfully, my low maintenance areas and pollinator gardens are especially chaotic by the time October rolls around!

It can be extremely tempting to tidy up, but it's also important to remember how our local fauna overwinter - whether that is birds snacking on seedheads or insects burrowing underground/into pithy stems - our drive for a sense of order can deplete some very important opportunities for these organisms to survive the winter!



Pollinator garden in early October



Picked over *Echinacea* Hollow *Solidago* stem seedhead

THE BEGINNERS' CORNER (CONT'D)

Leaf cleanup (?)

My township offers a free curbside leaf/debris vacuuming service that I once thought was terrific! But last year for the first time, I had O leaves removed from my property (that the wind didn't carry away on my behalf). Leaves, if left undisturbed as nature intended, create a layer of insulation, under which many insects can successfully overwinter (such as our native ladybug beetle).

You may decide *some* leaf cleanup is necessary on your property, and that's OK! Neighbors who keep a tidy yard can quickly become irritated if leaves are regularly displaced onto their yards over the season. So here is another great option! Consider piling leaves into rows along property edges (or in low spots) and mulching. I will even blend in a few bags of cheap topsoil, and use this leafy/soil blend to enhance my future pollinator gardens! While this may not be a direct benefit to our native insects immediately, the impact of removing leaves is ultimately offset, to some degree, by the habitat that will be restored/improved in the years to come.

Embrace the chaos! The urge for fall cleanup can (and should) wait until spring. For more on this topic, check out <u>Fall Garden Care for Pollinators</u> (PSU Extension).

DRINKIN' WITH HONEY

Krupnikas – a Honey Liqueur

Shared by George Balock

1 or 2 star anise
1 Tbsp caraway seeds
10 cloves
10 whole allspice
2-3 sticks cinnamon
1 stick vanilla beans
2-3 pieces ginger root
10 cardamom seeds (or 7 pinches powdered)
½-1 whole nutmeg
2-3 strips lemon rind (no white)
2-3 strips orange rind
pinch of saffron
4 cups water
2 Lbs honey (Spring is supposed to be best)
1 Quart grain alcohol



Using a mortar and pestle, break up the spices into smaller pieces and slit open the vanilla bean to release the flavors. Wrap spices in a cheesecloth and secure closed. Boil water and spice sack in large covered pot until volume of water is halved. Remove spice sack and strain remaining liquid. Pour in honey. Heat to boiling point and boil about 5 minutes with cover closed. Remove from heat and cool. Carefully pour in grain alcohol. Pour into bottles. Let bottles sit undisturbed for several days. Decant clear liquid into nice bottles, keeping sediment if desired to use in hot spiced cider. Enjoy!

NOTE: Krupnikas will initially have a "raw" taste with the alcohol featured prominently Given several months, the flavors will mellow and become more balanced. Krupnikas is best enjoyed 6 months after it has been made.