

February 2024

THE BEE HERDER

Published by the Medina County Beekeepers Association



MCBA Monthly Meeting February 19th, 2024

Medina County Library

210 S. Broadway, Medina OH 44256 Rooms A & B

Questions & Answers 6:30-7:00

General Meeting 7:00 PM - 8:00 PM

Topic – Native Bees and Honeybee Interactions

Guest Speaker – Ashley Kulhanek

Association Officers

President: Peggy Garnes 330-723-6265
president@medinabeekeepers.com

Vice President: Kimberly Carey
330-416-3701
vp@medinabeekeepers.com

Secretary: Sharon Carpenter 330-722-0080
secretary@medinabeekeepers.com

Treasurer: Kate Reusch 330-416-0284
treasurer@medinabeekeepers.com

Newsletter Editor: Clint Allen
allenci@zoominternet.net

Webmaster: Paul Kosmos
webmaster@medinabeekeepers.com

Refreshment Coordinators:
Elle Jisa - ejisa@roadrunner.com
Sheila Mauer - spmaurer01@gmail.com

Directors:
2024: John Vrtachnik
jvrtachnik@windstream.net
2025: Larry Watson
mcbalarry@aol.com
2026: Shari Baker
shari.baker721@gmail.com

Medina County Bee Inspector:
Michael Mohn 330-591-5035
mohnandsonsfarm@gmail.com

February Speaker

Ashley is an Extension Educator for Agriculture and Natural Resources for OSU Extension and has been in Medina County for the past 10 years. She has a Masters



in Entomology from OSU and specializes in insects, phenology, and invasive species. She is a member of the Buckeye Environmental Horticulture Team at OSU and a writer for the Buckeye Yard and Garden Line. She is a self-described bug nerd

and crazy cat lady.

Upcoming Events

February 2024 - Medina Beekeepers Beginner Saturday Classes

Saturday, February 17, and 24
Times: 10:00 am to 5:00 pm

Location: Medina County Library
210 S. Broadway, Medina OH 44256

Tuesday Classes

Tuesday, February 27, March 5, 12, 19, 26
Times: 5:30 pm to 8:00 pm

[Medina Beekeepers 2024 Beginner Class Link](https://medinabeekeepers.com/resources)
<https://medinabeekeepers.com/resources>

Location: Medina County Library
210 S. Broadway, Medina OH 44256

Tri-County Beekeepers Association Inc.

45th Annual Spring Beekeeping Workshop
March 1-2, 2024 – Ohio Agricultural Research and Development Center (OARDC) campus, located at 1680 Madison Ave, Wooster, OH 44691
Registration [HERE](#), cost is \$45.00

Earth Day - April 22nd, 2024. The Club looking for 3-4 volunteers.

May – Plant Exchange; World Bee Day

June – Pollinator week

MCBA March Meeting

Monday, March 18, 2024

Topic – Catching Honeybees in the Wild
Guest Speaker - Walt Wozniak

Q & A 6:30 to 7:00 pm
Monday, 7:00 to 8:30 pm

This meeting will NOT be at the library!

Location: Medina County Career Center, 1101 West Liberty Street (Rt 18)

About the Speaker: Walt Wozniak is a member of our club and will talk about catching bees. Walt has been working with bees in some capacity 72 out of his 77 years. Walt learned from his first Mentor, his father. He kept bees long before Walt was born. He enjoyed going to Al Root for Saturday meetings with Jack Happ, Roger Mores, and some of the Root family. He loved talking and listening to the old-time beekeepers swapping stories.

Walt has a simple philosophy about the bees:

"I do not claim to be a great beekeeper, I just have a love for them and their wellbeing. I like being around the bees, studying and reading about them, and try to inspire others to consider the art of beekeeping. That should be our goal... to carry on beekeeping to future generations and I pray we will succeed in this task."

MCBA Mission Statement

To promote beekeeping, broaden the knowledge and understanding of honeybees (and all pollinators) and the challenges they face in today's world, and educate by teaching best practices and techniques in apiary management.

President's Corner

By Peggy Garnes

I can't believe it's February already and the weather has been so warm that I'm worried about the bees eating through their stores too quickly. Hopefully everyone took advantage of the nice days to check hive weight and mite drop on the bottom boards. Prayers for an early spring!

Saturday Series - Beginner Classes start on February 17 at the Medina Library - make sure you have signed up and if you are a paid member with past class attendance, you can retake the class at no charge. Please contact me if you have any questions.

MCBA is looking for some volunteers for Earth Day in April and World Bee Day in May - it's a great opportunity to share information with the public and get them to love our honeybees as much as we do.

Stay healthy, hug your family, and see you at the meeting!

Ten Minutes with the Bees - The Bee Yard in February

By Paul Kosmos

Strange Things are Happening!

Like having several beautiful days in early February with temps in the mid 60's! I like winter, but it sure isn't hard to take these nice days. Or maybe it's just nice to see the Sun!

Like seeing several Red-wing Blackbirds this morning! Always makes me think Spring.

Like our bees hauling a bunch of pollen on February 8th! This is almost an exact repeat of last year when February and March were so mild.



Thanks to the Skunk Cabbage!

I've heard from several Beekeepers who used the warm temps to do their early Mite treatment. I did the same with Oxalic Acid and a vaporizer. It sure is quick and inexpensive. I will take a quick peak at the inserts every couple days to see if there was a mite drop.

When we get this type of warm weather I am always interested to see if it continues into spring. Sometimes we pay for it with a miserable stretch in April.

The type of Spring weather can make quite a difference in the bees' daily activity and how we manage our bees. I recall a Spring about 5 or 6 years ago when we had days in the mid 80's in March. Hives built up extremely fast since there was a huge early bloom of almost everything. That kept us on our toes to monitor swarm season.



Bees flying on February 4th, 2024

The excitement of that spring then created a challenge for beekeepers since so many food sources bloomed so early that we then experienced a tough summer.

I have also heard from a number of our members that their hives seem to be doing well for the most part. No idea why but there have been so many decent days with sunshine and the bees have been out and active.

It is worth mentioning that when you get a nice day it might be wise to pop the lid and take a quick look regarding their food supply. If in doubt, a couple of candy bricks are cheap insurance. We need 34 on the growing degree days for the Silver Maples to bloom (16th this morning)!

Volunteer to Demonstrate a Hive Inspections

If you are interested in volunteering to demonstrate hive inspections at the club bee year, follow this [link](https://www.signupgenius.com/go/70A0F45ADAB28A5FB6-46965463-2024) to sign up! Inspections are the 1st and 3rd Saturday of each month as well as the 2nd and 4th Sunday of each month. This is an amazing opportunity for members to demonstrate live inspections. The signup genius is for members interested in leading and demonstrating the inspection. Inspections will start in April. URL is also shown below.

<https://www.signupgenius.com/go/70A0F45ADAB28A5FB6-46965463-2024>

Honeybees Suffer Unnecessarily in Human - Made Hives

Derek Mitchell, PhD Candidate in Mechanical Engineering, University of Leeds

Honeybees in man-made hives may have been suffering the cold unnecessarily for over a century because commercial hive designs are based on erroneous science, my new research shows.

For 119 years, a belief that the way honeybees cluster together gives them a kind of evolutionary insulation has been fundamental for beekeeping practice, hive design and honeybee study.

More recently, California beekeepers have even been putting bee colonies into cold storage during summer because they think it is good for brood health.

“For hive walls to be effective, they have to be substantially insulating, such as 30mm of polystyrene.”

But my study shows that clustering is a distress behavior, rather than a benign reaction to falling temperatures. Deliberately inducing clustering by practice or poor hive design may be considered poor welfare or even cruelty, in light of these findings.

Honeybee (*Apis mellifera*) colonies don't hibernate. In the wild they overwinter in tree cavities that keep at least some of their numbers above 18 °C/64.4 °F in a wide range of climates, including -40 °C/-40 °F winters.

But popular understanding of their overwintering behavior is dominated by observation of their behavior in thin (19mm/.75in) wooden hives. These man-made hives have very different thermal properties compared with their natural habitat of thick-walled (150mm/5.9in) tree hollows.

Getting through winter

On cold days in these thin-walled hives, colonies form dense disks of bees, called a cluster, between the honeycombs. The center of these disks (the core) is less dense and warmer (up to 18 °C/64.4 °F). This is where the honeybees produce most of the heat by eating and metabolizing the sugar from honey.

The cooler outer layers (mantle) produce very little heat as the bees' body temperatures are too low. If the

temperature falls much below 10 °C/50 °F, the bees there will die.

Since 1914, beekeeping texts and academic papers have said the mantle "insulates" the inner core of the hive. This meant beekeepers saw clustering as natural or even necessary.

This belief was used in the 1930s to justify keeping honeybees in thin-walled hives even in -30 °C/-22°F climates. This led, in the late 1960s in Canada, to a practice of keeping honeybees in cold storage (4 °C/39.2 °F) to keep them clustered over the winter.

In the 2020s, keepers are refrigerating honeybees in summer to facilitate the chemical treatment of parasites. This is happening across the US – for example in Idaho, Washington, and Southern California.

Outside of a cold winter, if beekeepers want to treat mite infestations, they normally have to locate and cage the queen. But cold storage means beekeepers can skip this labor-intensive step, making their commercial pollination services more profitable.

Struggling for warmth

However, my study found cluster mantles act more like a heatsink, decreasing insulation. Clustering is not a wrapping of a thick blanket to keep warm, but more like a desperate struggle to crowd closer to the "fire" or die. The only upside is that the mantle helps keep the bees near the outside alive.

As the temperature outside the hive falls, bees around the mantle go into hypothermic shutdown and stop producing heat. The mantle compresses as the bees try to stay above 10 °C/50 °F.

The mantle bees getting closer together increases the thermal conductivity between them and decreases the insulation.

Heat will always try to move from a warmer region to a colder one. The rate of heat flow from the core bees to the mantle bees increases, keeping those bees on the outside of the mantle at 10 °C/50 °F (hopefully).

Think of a down jacket – it's the air gap between the feathers that help keep the wearer warm. Honeybee clusters are similar to the action of compressing a down jacket, whereby the thermal conductivity eventually increases to that of a dense solid of feathers, more like a leather jacket.

In contrast, when penguins are huddling in the Antarctic winter, they all keep their body core hot at similar temperatures, and therefore there is little or no heat transfer between the penguins. Unlike the bees in the mantle, there aren't any penguins in a hypothermic shutdown.

Academics and beekeepers have overlooked the part played by the invisible air gap between the hive and the cluster.

The thin wooden walls of commercial hives act as little more than a boundary between the air gap and the outside world. This means that for hive walls to be effective, they have to be substantially insulating, such as 30mm/1.18in of polystyrene.

This misunderstanding of the complex interaction between the colony enclosure, thermofluids (heat, radiation, water vapor, air) and honeybee behavior and physiology are a result of people not recognizing the hive as the extended phenotype of the honeybee.

Other examples of extended phenotype include a spider's web and a beaver's dam.

There are almost no ethics standards for insects. But there is growing evidence that insects feel pain. A 2022 study found that bumblebees react to potentially harmful stimuli in a way that is similar to pain responses in humans. We urgently need to change beekeeping

practice to reduce the frequency and duration of clustering.

Mistakes were made along the way...

By Clint Allen

January 24th, 2024 is a day that I will always remember. As a relatively new beekeeper I have heard many discussions about typical winter losses, and I always thought that I would be the exception. I mean, how hard could it be to get an insect to over winter. When I started out, I only purchased one colony as this hobby has a fairly high buy in price and I didn't want to spend a ton of money. Luckily, I was able to overwinter my first colony. I figured I had cracked the code and knew how to get my bees to overwinter without issue.

The start of my second year of beekeeping was an exciting one. In mid-May of 2023, I rescued my first swarm. It was such an exciting and memorable experience and soon I had 3 colonies in my yard (had purchased another Nuc).

My over wintered colony was not strong going into the spring of their second year but by the time.

August came around the colony was strong, and I was able to split them, with plans to over winter the Nuc. Then, in November, there was an exposed colony out in Valley City that I was able to rescue and bring home. They were gentle bees and the queen started laying straight away. Year two was shaping up to be a great for me as a beekeeper. To recap, by November, I had 5 colonies, and thought I knew exactly what to do for winter number 2.



Swarm from May of 2023

I was giving my colonies 1:1 and then 2:1 sugar syrup during the early months of the fall. Due to a lot of travel for work and my youngest going off to College, I wasn't able to commit as much time to my colonies as I would have liked to. I also underestimated the time commitment of maintaining 4-5 colonies (not the fastest at inspections). I did the best I could, given my available time, and by the time November was here, I was able to insulate each hive with 2" polystyrene insulation and had thought they would have enough sugar stores to last the winter.

I was so happy we were seeing such a mild winter in December of 2023 and when Christmas Day was here, I was able to check on each hive. At that time, I decided to give them all Mann Lake Pro-winter feed as a precautionary measure and was prepared to feed them for the remainder of the winter season. I figured I've done what I can, and all 5 colonies looked like they were doing great. Again, I thought I had this overwintering thing all worked out.

In early January our weather took a turn for the worse and we saw many days well below freezing and only a handful of days up into the 40's. January 24th was our first day to hit 50 °F and I took advantage this to take a peek into each of my colonies. To my dismay, the exposed colony I had rescued in November had perished. I was devastated. This was the first colony that I had lost. I knew their chance of survival was low, given the situation I found them, but their loss was devastating to me none the less. I proceeded to check on the remaining colonies, my Nuc was doing well along with the two colonies that I had actually paid for. The last colony I open up was the swarm I rescued in May. Every single bee had died. This was insult added to injury. I had no idea what I had done wrong. I had failed to be a good steward of my bees. The sun was starting to set, and I decided I'd assess why I lost these colonies "tomorrow."

On the 25th, I left work early and inspected all the frames of each one of the colonies I had lost. In both cases, they had run out of sugar stores. Even though they had the Pro-winter feed, it was untouched and there was zero capped honey in either hive. Moving into my 3rd season of beekeeping, I plan on focusing more on sugar stores moving into fall. I never thought I'd lose a hive from starvation. I had always thought I was doing enough. Additionally, having a plan to deal with social and work commitments is important. I had spent weeks and weeks out of the country during the fall (work travel) and I had thought I was doing enough. Obviously, I wasn't. On the plus side, as of mid-February, I have 3 remaining colonies that are all queen right with one of them even having capped brood already.

If you have a story of lessons learned, or mistakes made and would like to share, please reach out to me. Like in my work life, I like to address mistakes head on, develop plans to remediate and try to prevent them from happening again. I'm hoping by sharing this story, it will help emphasize the importance of sugar stores and just how fragile our bees are.

Meet a Club Member

Kym and Dave Lucas



Where do you live? Hinckley Twp.

What got you interested in beekeeping? A large dead tree with a feral colony inside fell over in our yard. It was in

autumn, and we could not find anyone to extract the hive. This sparked our interest to take beekeeping classes with MCBA. After the class, we purchased a Nuc and were off.

How long have you been keeping bees? This will be our 8th season.

How many, and what kind of hives do you have? We have 3 eight-frame Langstroth, 3 ten-frame Langstroth, and a Long Langstroth that we started last year and are experimenting with.

Are you looking to add to your apiary? No, we actually want to downsize this coming season. To save Dave's back we would like to convert to all 8-frame hives.

Do you share your beekeeping hobby with anybody else? We work together, which works well for us since our talents and skills complement each other's. Dave tends to do the more practical aspects of the work, and Kym does the research, but we discuss and make decisions together. We also talk bees frequently with friends that are also part of MCBA.

What is the best and worst part of beekeeping? Dave: The sense of accomplishment when the honey is in the

jar and labeled. Kym: The peace and stillness of watching them work, especially in early spring. Also, when seeing a hive come out of winter strong and ready to go.

Worst? Dave: Getting stung Kym: the horrible crunch when I realize that I've killed a bee somehow, the unwelcome surprise in late summer when I discover that my hive has become defensive during a dearth, and the sorrow when I discover that a hive did not make it through the winter.

Do you have any tips for beginner beekeepers? Join beekeeping clubs, attend meetings and conferences.

Are there any particular resources that you use and would recommend? We follow many beekeepers on Instagram — Rushing River is a favorite. Kym uses several blogs as resources — Honeybee Suite and Carolina Honeybees. Beekeeping Like a Girl is another resource. We've also accumulated quite the library of beekeeping books.

Other than beekeeping, do you have any other hobbies? We like to go flying in our single-engine plane. We also kayak, camp, hike, cycle, and travel, usually fitting in all of the above around our beekeeping schedule.

What do/did you do for a living? Dave: Electrical Engineer, Kym: Librarian, and wellness department of Heinen's for five years. We are both retired now, but Dave does occasional contract work.

Small Hive Beetle Trap / Bait

During our last club meeting's show and tell, Kym Lucas discussed using beetle traps along with bait that has worked well for her over the years. The bait she uses is made of a Slice of banana, spoonful of high protein brood builder (she uses pollen substitute because that's what they have), spoonful of honey, pinch of yeast (preferably Brewers, but has used baking yeast because that's what

was available), and a spoonful of water to make it mixable. Leave to ferment overnight. Just a few drops per trap is all that's needed. Brewer's yeast is available locally at homebrewing shops in Medina, however, its cost is fairly high at more than \$5 per 11.5-gram package (SafeAle US-05). The traps Kym uses are the Beetle Jail type and can be found online [here](#). The trap is fairly inexpensive at \$3 each and if careful, can be reused. The recipe for the bait originated from the OSBA "Apiary Diagnostic Kit". The kit can be purchased [here](#) for \$70.

Congratulations!

Kimberly Carey, Vice President of the MCBA recently graduated from The Ohio State University Extension, Master Gardener Program. Kudos to Kimberly and the club now have another resident plant expert to help us with our Plant questions.

Club Bee yard update

Thermal imaging was done at the club bee yard in early February and all three hives are looking good. The image with the largest heat index (shown) is our strongest hive. This hive went into winter with 3 deeps, 2 full of bees,



one full of honey. The other two hives were more "normal", each with 2 brood boxes and one super. All colonies had been treated with Formic Pro in August and Oxalic Dribble in Oct (2 separate applications, about 7 days apart). They were treated twice because the first dribble produced significant mite counts on the bottom board.

Kim Flottum Memorial

A Celebration of Kim Flottum's life will be held on Saturday, April 13 at 12:00 noon. Please come and help the beekeeping community honor Kim's amazing journey and share memories with each other as we try and manage life without him. Kim's accomplishments will be featured in a Podcast held at: Medina Community Church 416 South Broadway Street Medina, Ohio.



MCBA January meeting Minutes

Club Member Meeting

Meeting Date: January 15, 2024

MCBA monthly meeting was held at the Medina Public Library, one guest and 36 members were present, including four board members.

The meeting was called to order at 7:00 following a 30-minute Question and Answer time which started at 6:30.

Our President presented the treasures report and gave a synopsis of events to come throughout the coming year to allow the members to have time to consider how they might get more involved in the club by volunteering time where it suits their schedule best.

The events included:

February – Beginner Bee Keeping Classes

April – Earth Day

May – Plant Exchange; World Bee Day

June – Pollinator week

July – Bee Festival

August – Club picnic, Medina County Fair

September – Ag Day

December – Christmas Party

All members were reminded that if they are still members and have paid for and attended the beginners' class in the past, they may retake the class at no charge, but another copy of the book is not included.

Our club goals were shared: we would like to receive a gold star Quality Award and become a more sustainable beekeeping club.

The minutes were voted on and approved unanimously.

New business began at 7:20.

Our member meeting today was a time to “show and tell”. Members had an opportunity to share their “bad ideas”, “good ideas”, and any favorite gadgets that they think worked well for them in their beekeeping adventures.

Many people spoke out and shared.

The meeting concluded at 9:00 p.m.

Sharon Carpenter, MCBA Secretary

From Around the Web

If you find interesting websites or articles and would like to share with the club let the newsletter editor know and we can add them to future publications! This month members have found the following websites to share.

[Honey better treatment for coughs and colds than antibiotics, study claims](#)

[Honeybee Nutrition Guide](#)

[Don't mind the cold: how to open a hive in winter](#)

[Honeybee's Winter Nest](#)

[Necessary for Surviving the Big Dearth](#)

Club Meetings

Please remember to sign in before the meetings and grab a name tag (if available). Guests are always welcome and encouraged. If you bring a guest, please make sure to grab them a name tag too!

Ideas & Suggestions

This newsletter is for you, our members. If you have any ideas for content, format, corrections, or anything else, please, don't hesitate to reach out to me, Clint Allen via email.

Did you know; that the first publishing of the book ABC and XYZ of Bee Culture was in 1877 and is now on its 42nd Edition. This is a great resource for all beekeepers.

2024 MCBA MEMBERSHIP APPLICATION/RENEWAL

MCBA offers webinars and lectures, a monthly newsletter, the opportunity to sell honey at the county fair, and email updates. \$20 for emailed or \$25 for a printed, mailed newsletter. Membership includes one family member in activities other than voting.

Renew your membership online [here](#), or complete the form below, make a check payable to **Medina County Beekeepers Association**, and mail to Medina Beekeepers, PO BOX 1353, Medina, Ohio 44258.

Membership Form – Please complete so that we have current roster information for the newsletters!

Member Name: _____

Email Address (Please Print): _____

Mailing Address: _____

Phone #: _____ Optional # of Colonies: _____

Citations / References

Honeybees Suffer Unnecessarily in Human - Made Hives, was republished with permission from Derek Mitchell, PhD Candidate in Mechanical Engineering, University of Leeds.

<https://www.sciencealert.com/honeybees-suffer-unnecessarily-in-human-made-hives-study-finds>

<https://royalsocietypublishing.org/doi/full/10.1098/rsif.2023.0488>

Website URL's

<https://beetlejail.com/products/beetle-jail-baitable>

<https://www.betterbee.com/pest-management-and-medications/osba-adk.asp>

<https://www.theguardian.com/science/2020/aug/19/honey-better-treatment-for-coughs-and-colds-than-antibiotics-study-clams>

<https://honeybeehealthcoalition.org/nutritionguide/>

<https://www.honeybeesuite.com/too-cold-to-open-hive/>

<https://www.beeculture.com/the-honey-bees-winter-nest/>