

Buzzin' About

November 2018

The Miami Valley Beekeepers Association

Newsletter

**Monday, November 5, 2018
6:30 p.m.
Brukner Nature Center**

**Agenda
Carry-In Dinner
Nominations
Voting
Bee Bucks Auction**

MVBA CONTACTS

President

Lydia Pleiman

Vice President

Michele Zindorf

Secretary

Chrystal Reese

Treasurer

Francisco "John" Martinez

Executive Board

Jeff Gerhart

Katie Stafiniak

Newsletter

Terry Lieberman-Smith

Apiary Managers

Katie Stafiniak

Vickie Bowman

MVBA Carry In November Dinner:

**Nominations
Elections
Bee Buck Auction/Raffle**

MVBA provides the chicken, paper plates, cups, ice and beverages.
Members bring a dish to share and their own forks/spoons/knives.

If your last name starts with A-F please bring Salad

If your last name starts with G-L please bring Starch

If your last name starts with M-R please bring Vegetable

If your last name starts with S-Z please bring Dessert

RSVP to Chrystal Reese : reese.chrystal@gmail.com

President Notes

Well, the 2018 year is coming to a close. I would first like to thank Robert Dorsten for the work he put in to get the club started in a great direction for 2018.

I hope you all have your girls prepared for the long winter ahead of us. Remember, 80 pounds of food is recommended; this can include honey, sugar, pollen, and winter patties.

We had 12 people participate in the club pollen patty purchase. The two hives in our apiary located at Brukner Nature Center have quickly eaten through their winter stores and are sitting at about 20 pounds of honey each.

Under advisement, the board voted to feed some of the extracted club honey back to the girls. For anyone who may think, "I'll try feeding honey to my girls!", an important factor is the origin of the honey. We are feeding the honey taken from our hives back to our hives. Because honey bought from the store will likely contain American Foul Brood (AFB) spores, it is a strongly-discouraged practice. In addition to this effort, the board voted to buy three boxes of winter patties to try to get our girls through the winter.

Because of the lack of storage for our equipment and food for the girls, the board has seriously considered abandoning the practice of keeping bees as a club until storage space on-site becomes available. We have decided that this is not a decision to be made

by the board at this time, but may be something for the club to decide in the upcoming year.

The board is working to collect items for the "bee buck" auction that will be coming up at the November meeting. We have items, but if you have items that you would like to donate, please contact either Secretary Chrystal or myself. We will be taking nominations for MVBA Officers for the 2019 year at the November meeting, please consider taking on a larger role in the club. I know that beekeepers tend to be modest by nature, but I would be remiss in excluding a personal thank you to Vickie Bowman.

As many of you know, but some of you do not, Vickie taught a beginners beekeeping course in exchange for our use of the building throughout the year at Brukner. In addition to this, she has worked tirelessly with our apiary to combat this year's plethora of problems. If you see Vickie either at the OSBA Fall Conference OR at the November meeting, please join me in thanking her. Thank you to everyone who participated this year! Please take a look below at the officer positions as you consider the role you would like to play in the coming year in spreading the knowledge and love of bees that we all share.

Lydia Pleiman
MVBA President

Article III. Board of Directors

Section 3.01 Governance

Miami Valley Beekeepers, Inc. shall be governed by its Board of Directors.

Section 3.02 Seats and age requirements

The Board shall consist of association's Officers as defined by these bylaws and two (2) at-large members who are at least 18 years of age. Any board member must be a member, in good standing, for entire term period. Board members serve one (1) year terms.

Section 3.03 Officers

(a) President. The duties of the President shall be to preside at all meetings of this Association. The President shall be a de facto member of all committees. In the event of a tied vote, President's vote shall be weighted.

(b) Vice President. The duties of the Vice President shall be to assist the President and preside at any meeting during the absence of the President.

(c) Secretary. The Secretary shall keep a record of all proceedings at all meetings and send a copy to all the board members via email. Keep a record of all active members and update list as needed. Create any signup sheets needed throughout the year.

(d) Treasurer shall also keep the list of active membership. Keep a record of all monies collected for the Association and all monies disbursed, and prepare an annual report for the first meeting of each year. There will also be an annual audit performed during the November meeting by a committee of three (3) members appointed by the President.

MVBA Meeting Minutes October 14, 2018

Chrystal Reese, Secretary

Lydia Pleiman call the meeting to order at 7 PM.
There were 37 members in attendance.

Announcements for October:

MVBA Apiary Report: Katie Stafiniak reported one hive has a virgin queen. The other hive is potentially queenless. The plan is to combine the hives and re-queen with a queen from Vickie Bowman.

The apiary is going to feed honey to the hives and sell the remaining honey to Hairless Hare at the cost of \$8 per pound.

Beeswax from the club hives was graciously cleaned by Terry Lieberman-Smith. It is for sale for \$1/oz.

The club will be placing a bulk order for winter patties. They may be preordered for \$2 each.

To fill the vacant President position, Chrystal Reese nominated Lydia Pleiman for President and it was seconded by Terry Lieberman-Smith. The vote passed with a unanimous vote of members present. To fill the vacated Vice President position, Michelle Zindorf self-nominated. This vote also passed unanimously.

Youth member Josh Adler is looking for a 4H beekeeping mentor. Please contact club leadership if interested in mentoring.

Terry Lieberman-Smith announced the OSBA Fall Conference is November 3, 2018. There are numerous classes being offered as well as a number of vendors. There will be honey judging available to participants in the conference. The full schedule should be available online October 2, 2018.

The Treasurers Report announced the club has a current balance of \$2347.

Brukner made the following announcements: the rehab facility is closed for the season; the barn ground-breaking is scheduled for November 1, 2018; Dine to Donate is October 23 at Penn Station.

Patrick Reese, MVBA Beekeeper, gave the October presentation on winter in the Apiary and Beekeeping Equipment and Supplies You Can Build Yourself.

He brought in examples from his apiary of equipment he's made and shared many of his successes and less-than-successful experiments.

As winter approaches, this is the time to clean and prepare your equipment for the coming season. Clean your boxes, tool, and jackets. It's also the time to build or acquire the equipment you need.

Benefits to making your own equipment: saves money; customized for the needs of your apiary; experiment with new ideas; recycle materials; satisfaction of building it yourself.

What can you build yourself? Woodenware – boxes, nucs, frames, covers, Jigs to help you make/assemble equipment. Specialized stuff- bee vac, wax melter, pollen traps, escape boards, queen rearing, Extraction/Bottling equipment

Where can you find ideas and plans?

GardenFork TV on YouTube

OSBA website (our own Terry Lieberman-Smith even has podcasts on this site!)

Michiganbees.org

Honeybeesuite.com

Beesource.com

Beehivejournal.blogspot.com

Thank you, Patrick, for an informative presentation.

Nominations for 2019 MVBA board so far are as follows:

President – Lydia Pleiman (Terry Lieberman-Smith nominated, Jeff Gehret seconded)

Vice President – Chrystal Reese (Lydia Pleiman nominated, Jeff Gehret seconded)

Secretary – open

Treasurer - open

Member-at-Large :

Katie Stafiniak (continue from 2018)

Jeff Gehret (continue ion from 2018)

Apiary Manager – open

Nominations will be accepted at the November meeting.

The next meeting is the carry-in and Bee Bucks sale and elections November 5, 2018.

Catch the Buzz: Bee Culture

Glyphosate Keeps Showing up in Honey Bee Health Studies

The royal jelly-producing glands of bees exposed to Round-up® experience premature aging, according to a Brazilian study published online. Round-up® is a widely-used glyphosate-based herbicide; many other herbicides are also glyphosate-based.

The study used the commercial formulation of Round-up® in order to simulate real commercial conditions.

The study was released around the same day in early August that a California Superior Court awarded a former school groundskeeper \$289 million, finding that Round-up® contributed to his non-Hodgkin's lymphoma, according to various media reports.

Tara Cornelisse, a Senior Scientist with the Environmental Health Program, Center for Biological Diversity in Portland, Oregon, said that the Round-up® verdict against Monsanto was a "game-changer."

Cornelisse said that while "the science has been showing (glyphosate-related) impacts on honey bees, habitat, and people, Monsanto (persists) in calling Round-up® safe while the EPA (Environmental Protection Agency) continues to allow its use across the country." (In 2015, Cornelisse said, the World Health Organization's International Agency for Research on Cancer (IARC), found glyphosate to be a probable human carcinogen (<http://www.iarc.fr/en/media-centre/iarcnews/pdf/MonographVolume112.pdf>).

"The verdict in favor of the groundskeeper "almost gives more tangible credibility to the truth — and maybe will encourage the public to hold the Environmental Protection Agency (EPA) more accountable . . ." Cornelisse said.

In the Brazilian study, six-day old bees exposed to Round-up® appeared as if they were greater than 25 days old. The result, she said, "seem(ed) to advance cell death or aging," and is "not only an issue because bees may die sooner or produce less royal jelly in their lifetime, " but (also) because of the transition of roles that honey bees undergo."

Worker bees feed the jelly to all larvae for a few days but feed it continuously to future queens, Cornelisse said. Then they transition from "nurse bees" - bees that take care of larvae - to foraging bees, or those that go out of the hive to get pollen and nectar.

"The premature aging of the royal jelly-producing glands could make it likely that the

nurse bees transition too quickly to foraging bees, leaving (fewer) bees taking care of the brood, potentially reducing the brood, or number of offspring," Cornelisse said.

Further, this reduction (19-days+ plus) in the lifespan of the honey bee is a "big deal," according to Cornelisse, as the lifespan of a honey bee is relatively short, ranging from only three to four weeks in the summer to four months over winter. (Bees foraging for nectar in the summer, said Cornelisse, are more susceptible to dying from factors such as pesticides, predation, parasites or disease than those overwintering.)

Though the actual number of bees tested was small, Cornelisse noted, it should have been enough for microscopy tests, she said. The difference in cellular structure was "significant," she said, "so that tells you that the sample size was sufficient to detect differences."

The study "Changes in hypopharyngeal glands of nurse bees (*Apis mellifera*) induced by pollen-containing sublethal doses of the herbicide Round-up," Chemosphere (2018), doi: 10.1016/j.chemosphere.2018.07.189) - was authored by Márcia Regina Fanta, Eliana De Medeiros oliveira, Vieira Alves Valter, Afonso Inácio orth and Rubens Onofre Nodari

(<https://www.sciencedirect.com/science/article/pii/S0045653518314553>.)

Research hives used in the study were well-established, said Cornelisse - "a good thing," as the researchers "know what they've been exposed to for a while and could control their exposure." (Before beginning the study, hives were managed for six months to provide homogeneity with the breeding area,)

Though the amount of royal jelly produced did not decrease with Roundup®, the study found, those hives that received food containing Roundup® presented an average weight of royal jelly lower than that of control hives (0.167 g and 0.287 g per queen cell, respectively); but this difference, the study found, was not statistically significant.

The study authors noted, Cornelisse said, that it will be important to analyze the nutritional quality of the actual royal jelly produced to see whether its chemical make-up changed with Roundup®.

While a few previous studies have looked at the effect

of glyphosate-based herbicides such as RoundUp® on bees, Cornelisse said, this is the first study that looked at RoundUp® on royal jelly (and thus queen bee) production.

Cornelisse said that while there has been much research on the link between herbicides killing plants that bees need for their foraging, the Brazil study findings “will jumpstart some other research on the impact of herbicides on insects, because we haven’t been paying much attention to that and it’s really important.”

But the spraying of glyphosate-based herbicides such as Round-up® affects not only the health of honey bees as shown by the research, but also honey itself.

EPA documents obtained through a Freedom of Information Act (FOIA) request by U.S. Right to Know — a consumer advocacy organization — also show that the Food and Drug Administration (FDA) has found residues of glyphosate in samples of U.S. honey. Some samples, according to Right to Know, showed residue levels double the legally allowed limit in the European Union.

In May 2018, Right to Know filed suit in Federal District Court against the EPA seeking documents related to EPA’s interactions with the Food and Drug Administration (FDA) regarding the residue testing for glyphosate, communications EPA has had with Monsanto regarding that testing, and EPA compliance with a FOIA request filed in February 2017 seeking records between EPA employees and CropLife America, a trade association for the agrochemical industry.

Given these recent results showing the negative impact of RoundUp® on both honey bee lifespan and honey itself, “the biggest thing we can hope for right now,” Cornelisse said, is that the public can wake up and realize the EPA is approving the use of (RoundUp®) all over the country — millions of pounds — and maybe this will put pressure on the EPA to carry out their mandate – their mission – to protect human health and the environment.”

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By: Peter Dockrill

Scientists aren’t entirely sure why honey bee populations are stressed. Strong evidence exists linking the decline to pesticides, but new research shows another poison – one long believed to be harmless to animals – may actually be indirectly killing bees.

A study by researchers from the University of Texas at Austin suggests the world’s most widely used weed killer – glyphosate – could be a previously unknown factor behind what’s going on.

Glyphosate is the active ingredient in Monsanto’s

best-selling Roundup—the self proclaimed “flagship” of the company’s agricultural chemicals business.

That’s quite a business too: a 2016 study found that since its introduction in the 1970s, almost 10 million tonnes of glyphosate have been sprayed onto fields the world over.

That’s a lot. Especially when this herbicide may be killing more than just herbs.

“We need better guidelines for glyphosate use, especially regarding bee exposure, because right now the guidelines assume bees are not harmed by the herbicide,” says one of the researchers, biologist Erick Motta.

“Our study shows that’s not true.”

Glyphosate’s mechanism of action as a herbicide is the disruption of an important enzyme found in plants and microorganisms, which is located in a metabolic structure called the shikimate pathway.

Animals don’t have this pathway, which is why the chemical has long been thought to be non-toxic to them. But what about smaller organisms, such as the gut bacteria that populate the bee microbiome?

Contemporary science is basically an avalanche of studies revealing how gut bacteria and the microbiome generally are an essential and complex part of overall health. In bees, it looks like the same holds true.

When the researchers exposed honey bees to glyphosate at levels equivalent to what’s been found in crop fields, gardens, and roadsides, it significantly reduced their healthy gut microbiota.

In the experiments, half of the dominant healthy species of gut bacteria in the exposed bees – including *Snodgrassella alvi*, which help the insect process food and defend against pathogens – were found to be reduced.

This reduction of good bacteria didn’t end there: it actually impacted bee survival.

When untreated bees and glyphosate-exposed bees were exposed to the same bacteria – an opportunistic pathogen *Serratia marcescens* – the survival rates were starkly different.

Bees that hadn’t been exposed to glyphosate saw their numbers halved after eight days with *S. marcescens*. But only one-tenth of the glyphosate-exposed bees survived the pathogen after the herbicide.

“Studies in humans, bees and other animals have

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Our Official Facebook Page:

<https://www.facebook.com/miamivalleybeekeepers/>

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shown that the gut microbiome is a stable community that resists infection by opportunistic invaders," says senior researcher and evolutionary biologist Nancy Moran.

"So if you disrupt the normal, stable community, you are more susceptible to this invasion of pathogens."

The pharmaceutical giant Bayer – which now owns Monsanto – issued a release in response to the research, claiming "[no] large-scale study has ever found a link between glyphosate and honey bee health issues" and that the new paper "does not change that".

That's predictable, but according to other researchers, it also might be missing the point.

"This study is part of a growing trend towards looking at more complex interactions between animals, their microbiome, and interacting stressors," explains evolutionary ecologist Andres Arce from

Imperial College London, who wasn't involved with the research.

"Understanding these interactions is essential to quantify the hazards associated with pesticide use and is essential if we are to develop strategies that allow us to continue using pesticides, which are vital to modern agriculture, whilst minimising their effects on the natural world."

For now, more research is needed to better understand how glyphosate is affecting the bee microbiome – and the health of other creatures too – but the researchers say we should no longer think of this herbicide as being harmless to animals, even if it's only one factor affecting honey bee health.

"It's not the only thing causing problems," says Motta, "but it is definitely something people should worry about because glyphosate is used everywhere."

The findings are reported in PNAS.

Miami Valley Beekeepers Association Membership Form 2018

Membership dues are \$20 per calendar year

Membership benefits include:

Monthly meetings (exp. For Dec/Jan) with educational speakers
Monthly e-zine with beekeeping articles and other features
Sponsoring public presentations
Education in the MVBA Apiary
and more!

Name

Address

Phone

Email

Make checks out to: Miami Valley Beekeepers Association and Remit Payment to:

Miami Valley Beekeepers Association

900 Antioch School Rd

Vandalia OH 45377

MVBA Treasurer Report October 14, 2018

Checking Account		Total Holdings	Cash On Hand	
Beginning Balance Checking Acct 1 Oct 2018	\$ 1,813.77	\$ 2,123.77	\$ 310.00	Beginning Balance 1 Oct 2018
Income			Income during Meeting	
	\$ -		\$ 224.00	Aug Honey Harvest
	\$ -		\$ -	
	\$ -		\$ -	
Total for Deposit	\$ -		\$ 224.00	Total meeting income (cash/checks recieved)
Total Income		\$ 224.00		
Expenses			Expenses	
	\$ -		\$ -	
	\$ -		\$ -	
	\$ -			
Total Check Withdrawals/Debits	\$ -		\$ -	Total Cashbox Withdaws
Total Expenses		\$ -		
Cash xfer (Deposit from Cashbox)	\$ 404.00	\$ -	\$ (404.00)	Cash Xfer to lessen Cashbox contents
Ending Checking Balance 1 Oct 2018	\$ 2,217.77		\$ 130.00	Ending Cash Balance 1 Oct 2018
Monthly total Net change		\$ 224.00		
Previous month Net funds		\$ 2,123.77		
Sum ballance should equal total holdings (Bank activity +/- Cash Activity)		\$ 2,347.77		this acts as a check to ensure activity = actual balances
MVBA Total Holdings 25 Feb 2018(Checking balance + Cash Ballance)		\$ 2,347.77		

Seasonal Resource Page - Winter Feeding

Home-Made version of Honey Bee Healthy (adapted from Beesource)

5 cups water
 2 ½ pounds of sugar
 15 drops spearmint oil
 15 drops lemongrass oil

Heat the water to a boil. Remove from heat and stir in the sugar until dissolved. Once the sugar water has cooled, add the essential oils. Stir until everything is evenly distributed.

This solution should have a strong scent and not be left open around bees.

Cool completely before using.

I store this concentrate in the fridge -label it so that your family doesn't drink it!!

Approx. dosage: 1 tsp per quart of 1:1 sugar syrup for feeding

Marshmallow Bee Fondant

3 bags (10.5 oz) marshmallows
 ½ c. water
 4 pounds confectioners sugar
 1 t. Homemade mix from recipe above

Put marshmallows in a microwave safe bowl. Bowl needs to be large because marshmallows will puff up and cause a mess if they overflow. Pour water over marshmallows. Microwave, 20 seconds at a time, until melted.

Carefully remove from microwave. Stir in powdered sugar and honeebhealthy. Once it is difficult to stir, turn out on cutting board or countertop that has been dusted with confectioner's sugar. Knead in remaining sugar.

Coat the fondant with a light layer of shortening to help keep it moist. Wrap in several layers of plastic wrap.