

# NEWSLETTER

MCBA Motto: *Beekeepers Helping Beekeepers*

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## Presidential Musings

Now that 2019 is here I'd like to wish all of our members a happy New Year and I hope that you had a great holiday season. The banquet was a great event and we had a nice turnout. It was good to see that all of the work required to be ready to have the event paid off. We'll be looking to ramp up our summer picnic this year so you'll be hearing more about that as we get closer and so you can make plans to attend.

We really haven't had a true winter yet so you can still use oxalic acid to knock the mites back if need be. The warm weather also means that the bees are still eating more than you might expect and could starve before spring if you're not careful. I suggest wrapping your bees and keeping emergency food up top to give them the best chance. Fondant, winter patties, sugar boards, all will work.

As it is 2019 all but a few have had their memberships lapse. Please go to the website <https://www.montcopabees.org/> and renew as this is the most convenient and least error likely of options. You can use PayPal or a credit card to renew. Our 2019 meeting season is starting on Thursday, Jan. 24. I hope to see you there!

## MCBA Annual Holiday Banquet

The annual holiday banquet was held at the Plains Mennonite Church on December 1, and fun was had by all. The evening featured a buffet, an auction, a raffle, a photo contest, a dessert contest, and a trophy to the winner of the smoker contest held earlier in the year. Additionally, Nancy Tasker was named as a new member of the board of directors.

Vince Aloyo at the raffle table where lucky winners could take home books, gear, decorations, candies and more.



Mark Antunes makes the rounds as people help themselves to some of the delicious food.

Don George presents 1st-year beekeeper Rich Hiltner with the award for the longest burning smoker contest held earlier in 2018. The winning time?

2 hours four minutes.



## Winning Recipes

It's a tough job, but somebody has to do it. The selfless dessert judges are pictured left to right: Greg Rhoa, Eric Curtis, Don George, Greg Lehman, and Amy Dial. Nancy Tasker, right, looks on.



### First Prize PECAN HONEY SQUARES

#### Shortbread Crust

2 cups Unbleached flour  
2/3 cup Powdered Sugar  
1 tsp Salt  
3/4 cup Unsalted Butter

#### Pecan Layer

1/2 cup Honey  
1/2 cup Brown sugar  
2/3 cup Unsalted butter  
3 T Heavy cream  
3 1/2 cups Pecans, coarsely chopped

Preheat oven to 350 degrees. Prepare 13x9 baking sheet by lining with parchment paper and spraying with unflavored oil spray. To make the crust, sift together flour, powdered sugar and salt. Add butter (cut in, or use a food processor) until mixture resembles coarse meal. Pat mixture into prepared baking pan. Bake 20 minutes or until edges of shortbread crust are lightly browned. Cool shortbread crust on baking rack, about 30-40 minutes. To make the pecan layer, bring honey, brown sugar, and butter to a boil in a pan over medium heat, stirring constantly. Remove from heat and add pecans, stirring until coated. Spread mixture over cooled shortbread crust, completely covering crust. Bake again until top is golden and bubbly (~ 30 min, longer if glass baking dish is used). Cool completely before cutting (I find the bars cut cleaner if you refrigerate for a couple of hours). Enjoy!

**Andrea Stewart** of Montgomeryville was the first prize winner for her Pecan Honey Squares recipe. She began keeping bees four years ago, when her son "decided that it was time for him to have his own bee hives at our home. After he bought a house of his own, he decided to leave a hive for me to call my own. Having my own hive meant I would have to take the MCBA beginner bee keeping class, which I completed this fall. Besides beekeeping, my favorite hobby is cooking. I love creating recipes that allow me to use my own honey. The pecan bars were created by combining things I liked from different recipes."

**Second Prize**  
**FRESH APPLE CAKE**  
**Anastasia Hudgins**

**Cake Batter**

3 eggs  
1 cup vegetable oil  
1 cup honey  
2 ¼ cups all purpose flour  
2 ½ tsp baking soda  
½ tsp salt  
2 medium apples, chopped  
1 cup walnuts or other nuts

**Glaze**

½ stick of butter  
½ cups brown sugar  
½ cut honey  
1/3 cut milk or cream

Preheat oven to 350 degrees. Grease a Bundt pan with butter and sifted flour (shake out excess flour to remove) and set aside. Cream the eggs, oil, and sugar in a large bowl. Sift the flour, baking soda and salt into the mixture, mixing as you go. Add apples and nuts. If the batter is too stiff, mix with milk to moisten. Bake for 45 minutes in a Bundt pan until a knife comes out clean. Don't overbake. Let cool for 5 minutes, then turn pan over onto cake plate. To make the glaze, melt butter and add sugar, stir. Add milk or half and half. Bring to a boil for 2 minutes, stirring constantly. Immediately pour over hot cake.

**Tips for substituting honey for sugar in baking recipes:**

1. Coat measuring cups in cooking oil so the honey pours out easily.
2. For every cup of sugar, substitute 1/2 to 2/3 cup of honey.
3. For every cup of honey used, subtract 1/4 cup of other liquids in the recipe.
4. Add 1/4 teaspoon of baking soda for every cup of honey used.
5. Reduce oven temperature by 25 degrees F.

**Third Prize**  
**APPLE HONEY NUT THING\***  
**Rich Hiltner**

**Cake Batter**

1 cup sifted cake flour  
4 tsp baking powder  
1 t salt  
4 eggs  
1 cup honey (at room temp)  
2 cups tart apples (cut to ½ inch cubes)  
2 cups chopped pecans  
2 t vanilla

**Topping**

1 cup whipping cream  
2 tsp honey  
1 tsp sherry

Preheat oven to 350. Grease two 10-inch pie plates with butter. Sift flour, baking powder and salt together in a small bowl. Cream eggs and honey in a large bowl with a hand mixer. Add flour mixture, apples, pecans, and vanilla. Carefully mix until well blended. Pour batter into pie plates. Bake for 30 minutes until top is light brown has a spongy look and a toothpick comes out dry when inserted in the center. Transfer to wire rack to cool. For topping, whip cream until soft peaks start form. Add honey and sherry. Continue mixing until soft peaks form. To serve the Thing, cut into wedges, top each wedge with a spoonful of the honey cream.

\*From *The Fresh Honey Cookbook*, by Laurey Masterton. Storey Publishing

## In the News

### World's First Insect Vaccine Could Help Bees Fight Off Deadly Disease

<https://www.npr.org/sections/thesalt/2018/12/07/674587061/worlds-first-insect-vaccine-could-help-bees-fight-off-deadly-disease>

Dec. 7, 2018  
Bill Chappell

Bees may soon get an ally in their fight against bacterial disease — one of the most serious threats the pollinators face — in the form of an edible vaccine. That's the promise held out by researchers in Finland, who say they've made the first-ever vaccine for insects, aimed at helping struggling honeybee populations.

The scientists are targeting one of bees' most deadly enemies: American foulbrood, or AFB, an infectious disease that devastates hives and can spread at a calamitous rate. Often introduced by nurse bees, the disease works by bacteria feeding on larvae — and then generating more spores, to spread further.

The idea of a potential new weapon to fight AFB has generated excitement in the beekeeping community, along with some skepticism about the claim of a vaccine — which remains in the testing phase. The news comes three years after the same researchers were hailed in *Entomology*

Today as discovering the "key to bee vaccination."

Scientists Dalial Freitak and Heli Salmela of the University of Helsinki say their new vaccine solves a vexing problem researchers have faced as they try to save bees from disease. Because insects' immune systems don't have antibodies, they essentially lack a "memory" for fighting diseases.

Freitak says she and her colleagues were able to get around that limitation, after she realized Salmela's study of a protein called vitellogenin seemed to complement her own work, in which she found insects that were exposed to bacteria were able to impart an elevated immune response to their offspring.

From the university's news release:

"When the queen bee eats something with pathogens in it, the pathogen signature molecules are bound by vitellogenin. Vitellogenin then carries these signature molecules into the queen's eggs, where they work as inducers for future immune responses."

"Now we've discovered the mechanism to show that you can actually vaccinate them," Freitak said in a news release. "You can transfer a signal from one generation to another."

Researcher Dr. Michael Goblirsch, of the esteemed **Bee Lab** at the University of Minnesota, has proposed ways to test the vaccine on large bee colonies in field conditions.

(Continued next page)

## Insect Vaccine, cont.

"Although our immune system and that of insects/invertebrates are different, they both store information about past experience with pathogens and use this information to potentially establish resistance upon subsequent exposure," Goblirsch said. "With optimization dosage and the timing of delivery under field conditions, it is hoped that a vaccine for bees will increase a colony's ability to fight infectious disease, making them more productive and healthy. "

The Finnish team calls their vaccine PrimeBEE, and they say it can be delivered to the queen via a sugar patty. Another plan would call for beekeepers to simply order a queen that's already been vaccinated. While a website has been created for that product, it does not list a price — or say when the vaccine might be available commercially.

The new vaccine is still undergoing safety tests, but it could represent a breakthrough in the protection of bees, a crucial link in the food chain. In the U.S., their pollination is vital for many foods we eat, from apples and almonds to watermelons and zucchini.

When an American foulbrood infection sets in, each brood cell can host millions upon millions of spores. And because of bees' tidy housekeeping practices, those spores are then spread even further when the bees clean the cell out. The disease can be treated with antibiotics, but no cure is available.

"It's a death sentence" for a hive or colony to be diagnosed with the disease, says Toni Burnham, president of the D.C. Beekeepers Alliance in Washington.

In D.C. and Maryland, Burnham says, "if a colony is diagnosed with AFB — regardless of the level of the infestation — it burns. Every bit of it burns; the bees are killed and the woodenware burns, and it's gone."

Concerns about American foulbrood are so serious, Burnham says, that it's the main reason why her group recommends never buying used bee hives and other equipment.

"They have pulled 100-year-old samples out of storage and have been able to reinoculate honeybee hives with American foulbrood spores," she says.

In addition to AFB, honeybees and other pollinators face a number of existential threats, from diseases and parasites to insecticides. The researchers in Finland say they plan to use the same approach to combat other diseases.

"We hope that we can also develop a vaccination against other infections, such as European foulbrood and fungal diseases," Freitak said in a statement. "We have already started initial tests. The plan is to be able to vaccinate against any microbe."

If the vaccine works as the Finnish team expects, it would be a welcome bit of good news for beekeepers, farmers and advocates for pollinators, who have watched one of the world's most important insects struggle in recent decades.

"We need to help honeybees, absolutely," Freitak said. "Even improving their life a little would have a big effect on the global scale."

While acknowledging the other problems bees face, she added, "If we can help honeybees to be healthier and if we can save even a small part of the bee population with this invention, I think we have done our good deed and saved the world a little bit."



## A Mushroom Extract Might Save Bees from a Killer Virus

By Robbie Gonzalez 10-4-2018

<https://www.wired.com/story/a-mushroom-extract-might-save-bees-from-a-killer-virus/>

**THE BEES**, as you've probably heard, are dying, in massive numbers. Termed colony collapse disorder, the die-off counts among its causes a parasite aptly named *Varroa destructor*. A flat, button-shaped, eight-legged critter no more than 2 millimeters long, varroa mites invade honeybee hives around the world in droves, latch onto their inhabitants, and feed on their tissues, transmitting devastating RNA viruses in the process.

The worst of these diseases is deformed wing virus, believed to be one of the largest contributors to the devastation of honeybees worldwide. Named for the shrunken and misshapen wings that develop in affected bees, DWV robs its hosts of flight, undermines their immune system, and halves their lifespan. The sicker a bee is, and the more useless its wings, the fewer plants it pollinates. What's more, what flora an infected bee *does* manage to visit become tainted by the virus, transmitting the infection to future pollinators. As if a bee-debilitating virus transmitted by itty-bitty parasites wasn't terrifying

enough, beekeepers currently possess no effective means of battling the virus.

But in a study recounted today in *Nature Scientific Reports*, researchers present evidence for a surprising solution to DWV: mushrooms. The discovery has implications not just for honeybee populations, but also the food systems, economies, and ecosystems that rely on their healthy activity.

The mushrooms in question belong to the genera *Fomes* and *Ganoderma*, better known to fungus fans as amadou and reishi. The former commonly grow on trees, in the shape of a horse's hoof. The latter have long been prized in traditional medicine circles and are a common sight at Asian markets and health food stores. Both belong to an order of fungi known as polypores, extracts of which have been shown in numerous studies to possess potent antiviral properties against dangerous infections like swine flu, pox viruses, and HIV.

"I wanted to see if those extracts had a similar antiviral effect in bees," says Paul Stamets, the study's lead author. A prominent mycologist, the author of *Growing Gourmet and Medicinal Mushrooms*, and a passionate proselytizer of all things fungal (his TED talk, "6 Ways Mushrooms Can Save the World," has been viewed millions of times), Stamets has long suspected that bees derive some benefit from mushrooms.

He recalls a scene from his backyard in July of 1984—the first time he noticed bees from his personal hive flying back and forth to a pile of fungus-coated wood chips. The bees, he says, were sipping droplets of liquid that had oozed from the mushroom's mycelium, the fuzzy white network of cobwebby filaments through which fungi absorb nutrients.

At the time he figured the droplets contained sugar (fungi break down wood into glucose). "But then, a few years ago, I had an epiphany—a waking dream, actually," Stamets says. What if

### Mushroom Extract, cont.

the bees were getting more than a shot of sugar? He began to wonder if they were in fact self-medicating.

That question led him to [Walter Sheppard](#), chair of the entomology department at Washington State University and one of the world's leading experts on bees. With the help of researchers in Sheppard's lab and the US Department of Agriculture, they have spent the past several years dosing sugar-water feeders with extracts from the mycelium of various species of mushrooms and analyzing the effect on infected bees. In both indoor experiments and outdoor field tests, bees that fed on mycelium extracts fared significantly better than those that drank only sugar water. In caged bees infected with DWV, the researchers observed an 800-fold decrease in virus titres (a measure of the level of virus in the bee's system) among bees dosed with amadou extract. The effect was less powerful in the field, which are less strictly controlled than lab trials—colonies fed reishi extract saw a 79-fold reduction in DWV, those fed amadou extract a 44-fold reduction—but the results were still highly significant. (In other field tests, bees fed reishi extract saw a remarkable 45,000-fold reduction in Lake Sinai virus—another disease ravaging honeybee populations.)

"It's shown a strong effect, stronger than anything I've seen," says geneticist Jay Evans, head of the USDA's [Bee Research Laboratory](#), which analyzed the virus levels. Stronger, even, than [RNA interference](#), another promising—but expensive—approach to fighting bee viruses that Evans himself is investigating. "I'm a little jealous," he says.

Stamets has received numerous patents on the extracts in the past year, and he plans to sell them on his website, [fungi.com](#), a domain he says he has owned since 1994. "I'm not in this for the money," he says. "I walk my talk, and I use my business to fund further research."

More studies are always a good idea—especially for something as seemingly effective as these extracts. For one thing, it's not clear whether they will help rescue bee colonies long-term. Stamets' field studies took place over two months, in the summertime—but the hardest time of year for bees is winter. Future studies will need to examine how other colonies fed the extracts fare over six months or more, and how many survive that cold and deadly season.

It's also not clear how these extracts reduce the virus titres in infected bees. They could be boosting the bugs' immune systems. Or inhibiting the virus directly. Or affecting the way it replicates inside the bees. Or it could be something else. Whatever the mechanism, it'd be useful to understand it more fully before deploying the extracts on a wider scale. After all, there are also unforeseen consequences to consider.

"Whenever I hear about something like this, I immediately think of the risks and drawbacks," says Lena Wilfert, an evolutionary ecologist at the University of Ulm in Germany who studies the spread of viruses among honeybees. Of the known viral pathogens affecting the insects, she says, DWV poses the greatest threat of all, so she appreciates the potential benefits of powerful virus-nerfing agents. "But any time you apply a medication at large scale, you're going to have potential for resistance evolution in the thing it targets." Those questions have yet to be probed.

"We have to prove all this, you know? And thankfully, I've become more disciplined as a scientist, being around other scientists," says Stamets, who acknowledges that there's much more work to be done. "We're doing tests right now in several hundred more beehives. We're ramping up."



## Of Interest



### It's a Wrap

Mark Antunes had the great idea of buying rolls of hive wrap, and then splitting the cost with other members of the bee club. He bought 8 rolls of hive wrap, which is basically bubble wrap with black plastic on one side to absorb heat, and arranged for volunteers to help him cut it and distribute it. Originally he'd intended to bring the 8 rolls to the October general meeting, but instead of getting 8 rolls in the mail, he received 8 sheets! Oops! He bought them from B and B Honey Farm in Houston, Minnesota. "This is to help out club members. Most people aren't

going to buy a whole roll of this stuff if they have only 2 hives." He said this in between cutting the wrap and doling out advice and answering questions from new beekeepers.

Volunteers showed up to help cut and distribute the hive wrap. Jeannie Gable was there taking payment, and she said that 50 people had signed up to buy wrap. Greg Lehman and Don George were helping with cutting. Phil Tyson of Perkiomenville brought all the materials necessary to make the process go quickly: a sawhorse to lay some plywood on to serve as a cutting surface, and a T-square to measure off the lengths, which is just enough to go around a hive with room left for overlap. Phil said he's been keeping bees for 40 years, but has been a member of MCBA for only 5. "It was the best thing that happened. I came to the conclusion that I had to learn how to deal with the mites." He has seven hives, and sells honey across the counter at his business.

Janine Confer and Ken Lovett of Langhorne were there to buy some wrap for their 11 hives. Janine said "I make him suffer for my hobby." She used to winterize her hives by making quilts of R-13 fiberglass insulation covered in black carpenter bags, but didn't like how bulky these were to store, so now she's trying a new approach.

Lori Curtis from Worcester was in line to buy some wrap too. A fellow first-year beekeeper, she is doing everything she can to make sure her bees get through the winter, especially the weaker of her two hives which underwent a queen replacement and had a bout of sac brood. Lori became interested in keeping bees when she learned about their important role as pollinators during a Master Gardener course she took through Penn State at the 4-H building. "I have appreciated the experienced beekeepers taking the time to come over and help."

## Pennsylvania Farm Show

Pennsylvania's Farm show is the largest indoor agricultural exposition under one roof in the US, with almost 6,000 animals, 10,000 competitive exhibits and 300 commercial exhibits every year. The event showcases the quality and breadth of Pennsylvania's agriculture industry and the people who make it thrive. The show offers visitors a tiny slice of the industry that employs nearly half a million people and contributes to Pennsylvania's economy every year.

Every year the MCBA puts up an exhibit, and this year's exhibit was designed by Brian Marcy and erected by Dan Boylan, Joe Duffy and Harold Jenkins. The club walked away with second prize this year, and congratulates the Capital Area Beekeepers Association for winning first place, and the Northwestern PA Beekeeper Association for placing third.



Photo by Dan Boylan

## PSBA Conference - a Recap

The Pennsylvania State Beekeepers Association had its annual conference on November 2-3 in State College, and one Montgomery County beekeeper who attended the conference described herself as completely energized and enthused by the experience. Nancy Tasker of Harleysville said that she was thrilled that leaders in the field were at the conference, saying that “You meet others, to talk to them, and listen to personal experiences from many years of beekeeping – the value of this conference is priceless and worth every penny.”

Nancy attended both days in a “listen and watch mode”, and was able to go to several of the talks, the banquet, and the auction, as well as to an informative talk on varroa destructor given by the key note speaker, Dr. Samuel Ramsey. Through his dissertation research at the University of Maryland, Dr. Ramsey shows that varroa feeds on the honey bee’s fatty body, rather than sucking its blood, as previously believed. Any readers who missed Dr. Ramsey’s talk can catch a description of his research at <https://www.youtube.com/watch?v=Fyfyj-2O47Q> - a short video that made him the University of Maryland 2017 Three-Minute Thesis Winner, or a longer version at <https://www.youtube.com/watch?v=DK2Xi0ST4rA>.

Another high point of the conference was the vendor’s room where books and supplies were for sale. Nancy bought Jeremy Barnes’ *Our Green Cathedral: Reflections on Honey Bees, the Environment and the Human Condition*. She had an opportunity to speak with the author and upon learning she is a first-year beek, he advised her against becoming discouraged, as happens to many new beekeepers in their first five years when they have unrealistic expectations about their colonies. She also described finding herself sitting next to Stewart Mathias who makes honey ice cream, and said “You sit down next to someone with 50 years’ experience and you can’t believe it! You just listen.” Stu has volunteered at the Pennsylvania State Bee Associations (PSBA) Farm show ice cream booth for over 50 years and the ice cream stand’s sales benefit the *Honey Bee Queen program*.

Finally, Isabelle Barrett of Harleysville was crowned 2019 Pennsylvania Honey Queen, but unfortunately is unable to perform duties of PA Honey Queen, as she has unforeseen increased high school obligations.

The 2019 PSBA Annual Membership Meeting and Conference will be held November 1 & 2, at the at the Ramada in State College. Make sure to attend the Jan. 24 club meeting to hear Deborah and Peter Beukers, and Nancy Tasker talk about their experiences at the Farm show.



MCBA Member Harold Jenkins  
listens to Dr. Ramsey’s presentation.  
*Photo by Nancy Tasker*

## Announcements

**ISO writer** - The newsletter editor is seeking volunteers interested in writing short pieces about their experiences keeping bees, especially people finishing their first year, and those who are completing their 2nd year. She is also in search of persons who would like to write a short piece about the monthly meetings. Please contact Anastasia Hudgins at [anastasia.hudgins@gmail.com](mailto:anastasia.hudgins@gmail.com) for more information.

**Supplies** - Steve Finke of Meadow View Beekeeping, (<https://www.meadowviewbees.com>) and Mann Lake Distributor, will be bringing important winter bee feeding supplies: fondant 3# individually bagged patties \$6 (limited number so if you want >10 call to order), 50 # block \$32, Dadant winter patties (2.5% protein) \$2.50, Mann Lake Bee Pro-patties (12% protein) \$3. Other Mann Lake orders may be pre-ordered and picked up at the meeting by calling Steve (610) 737-7676 no later than TUESDAY 1/22.

### Next issue:

- ♦ An interview with long-time club member Harold Jenkins
- ♦ A report about the 9th Annual Beekeeping Symposium held at the Franklin Institute

**Don't forget to renew your MCBA membership!**

### 2019 MCBA Board Members

	Role	Phone #	Email
Dan Boylan	President	610-906-6182	dpboylan@comcast.net
Greg Lehman	Vice President	443-986-2906	glehman22@gmail.com
Regina Rhoa	Secretary	610-304-8903	rrhoa1033@verizon.net
Geoff Anders	Treasurer	215-527-6288	geof.anders@gmail.com
Vincent Aloyo	Board Member	484-557-4049	vincent.aloyo@gmail.com
Mark Antunes	Board Member	484-955-0768	honeyhillfarm@verizon.net
Scott Famous	Board Member	610-329-4399	famous55@verizon.net
Don George	Board Member	267-784-0029	wilddad84@outlook.com
Mick Newby	Board Member	610-888-7102	iammicker@yahoo.com
Rachel Newby	Board Member	610-888-0198	buchanan.1978@gmail.com
Elinor Spring	Board Member	484-686-2735	elinorspring@verizon.net
Nancy Tasker	Board Member	717-615-8683	nanc.j.414@gmail.com
Margaret Zittel	Board Member	215-534-6503	mzittel1@verizon.net
Anastasia Hudgins	Newsletter editor	215-823-0932	anastasia.hudgins@gmail.com

### Send in your Dues today for Montgomery County Beekeepers Association

Dues are applied on a calendar year basis. January 1<sup>st</sup> to December 31<sup>st</sup>

Name \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Email Address \_\_\_\_\_

Phone Number \_\_\_\_\_

New membership \_\_\_\_\_ Renewing membership \_\_\_\_\_

MCBA DUES \$15.00 per individual\* per year \$ \_\_\_\_\_

MCBA DUES \$20.00 per household\* per year \$ \_\_\_\_\_

MCBA & PSBA Individual Membership \$35 per year \$ \_\_\_\_\_

MCBA & PSBA Household Membership \$45 per year \$ \_\_\_\_\_

TOTAL ENCLOSED \$ \_\_\_\_\_

**\*\* We recommend:** that you also pay dues for PA State Beekeepers in order to encourage research on bee health, and promote efforts to dissuade local township and boroughs from restricting beekeeping. You will also benefit from the 10 annual state newsletters and information sharing.

**Calendar of Events** - all meetings held at the 4-H Center 1015 Bridge Road, Skippack, unless otherwise noted.

**Jan. 24** - General Meeting 7 pm presentation by Dr. Vincent Aloyo on bee communication

**Feb 9** 9th Annual Natural Beekeeping Symposium at The Franklin Institute, Phila

**Feb. 12** - Executive Board Meeting 7-9

**Feb 19** - Beginner Beekeepers Course 6 pm

**Feb. 28** - General Meeting 7:00 p.m.

Presentations by Bruce Rodriguez on swarm trapping & Mark Antunes on irradiation

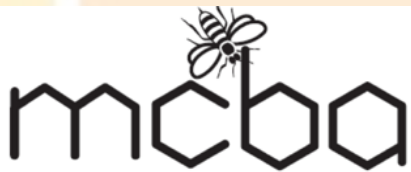
**March 2-3** - Wax Dipping for All MCBA Members. 8-3. Sign up, directions & pricing on MCBA website

**March 6** - 2nd Year Beekeepers' Class 7 pm

**March 12** - Executive Board Meeting 7-9 pm

**March 16 -17** Wax Dipping for Beginners and All Members. 8-3. Sign up, directions & pricing on MCBA website

**March 28** - General Meeting 7 pm presentations by Dr. Kirstin Trainer on varroa, and V. Aloyo and M Antunes will demonstrate making nucs and splits



Montgomery County Beekeepers Association

PO Box 903

Skippack, PA 19440

