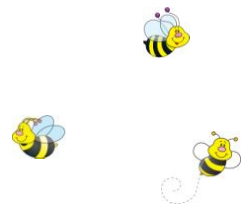




The Skep



President's Corner

Hello Beekeepers!

This coming meeting will be full of fair preparations. We will be counting candy, labeling honey, and the new t-shirts and polos will be available to pick up. If you haven't done so already, please see George Stacey to sign up to work at the association's booth at the Canfield Fair.

If you work one shift at the fair you can pay half price for your dinner at the banquet. If you work two shifts your banquet meal is free. If you aren't able to make it to the August meeting but still want to sign up to work please call George at (330)360-8717.

Candidates for the scholarship should plan to work at the fair booth and enter something for judging. If you need a scholarship application please see a board member or send Heidi an email asking for the electronic copy.

The August Beekeepers' To Do List includes spinning out honey and making wax products for the fair. The association purchased jars that you can buy to enter your honey for the fair.

Please make sure your bees have access to water. This year I put in a small pond. The bees were not using it so I set a feeder of sugar water near it to draw them to it. Now they are using the pond as a water source regularly.

I hope to see you at the August 16 meeting. We have lots of work to do but it will be a great day!

Bruce Deafenbaugh

2015 Tentative Meeting Dates & Locations

August 16	Don Kovach's Parents' Home
September 20	Nick Deemer
October 11	Fellows Riverside Gardens

Please bring your own plates, cups and silverware for the potluck lunch and folding lawn chairs just in case.

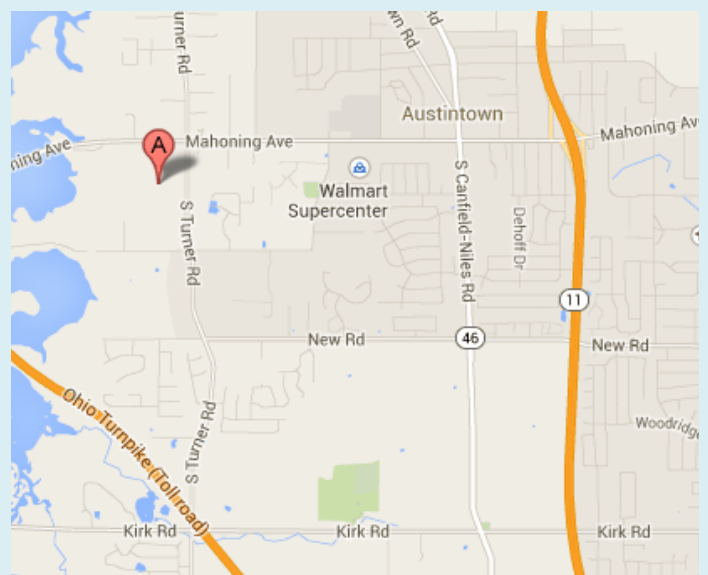
August Meeting Details

Sunday, Aug. 16
Potluck Lunch 1:00 p.m.
Meeting 2:00 p.m.

Don Kovach's Parents' Home
The Honey House
322 South Turner Rd.
Youngstown, Oh 44515

From Rt 11 North take the Mahoning Ave Exit 39 toward Austintown. Turn left onto Mahoning Ave for 2.1 miles. Turn left onto South Turner Rd for .2 miles. The driveway is on the right.

From Rt 11 South take the Mahoning Ave Exit 39 toward Austintown. Turn right onto Mahoning Ave for 2 miles. Turn left onto South Turner Rd for .2 miles. The driveway is on the right.



July Meeting Recap



After the July business meeting Bruce Zimmer shared about a trip that he and Michele took to Belize last winter. They had an exciting addition to their tour

when they visited a stingless bee yard on the way to the animal sanctuary. Bruce told us about the stingless bees that they encountered as well as the history of the bee. During his presentation we enjoyed his photos, stories and jokes.

Meliponines or stingless bees of Central America are closely related to honey bees. They have small stingers but are unable to use them for defense. To defend their hives or themselves these bees bite, causing a reaction similar to that of a mosquito bite. Stingless bees store honey and pollen in large, egg shaped pots made of beeswax mixed with plant resins. The pots are arranged at the ends of the hive while the brood combs are located in the center of it, making it easy to harvest honey without disturbing the brood. Bruce commented that many households keep a hive hanging on an outer wall of their homes under a small roof.

While visiting the bee yard, Bruce and Michele observed the bees being kept in hives constructed of hollowed logs with hinged lids. He said that at each end of the log there was an opening with a cover that could be removed to extract the honey from the hive.

Bruce told us that the bees were kept by the Mayans for honey and were regarded as sacred. He said they had become almost extinct but there are many people working to

save the stingless population in Central America.



Thank you Michele and Bruce for hosting our meeting and sharing about your beekeeping adventure in Belize! We all had a great afternoon and

enjoyed your presentation!

Bee-worthy Blooms

A sampling of August blooming trees and plants that honey bees use as nectar (N) and/or pollen (P) sources.



Borage (*Borago officinalis*): N & P Blooms the whole summer. Pollen pellets are yellow-green to grey.



Japanese Pagoda Tree (*Sophora japonica*) N & P A major source of both pollen and nectar. Pollen pellets are creamy white.



Sunflower (*Helianthus annuus*): N & P Pollen pellets are bright yellow.

Coneflower (*Rudbeckia*): P Pollen pellets are orange.

Resources:

Lindtner, Peter. (2014). [Garden Plants for Honey Bees](#). Kalamazoo, MI: Wicwas Press.

Tew, James E. *Some Ohio Nectar and Pollen Producing Plants*, Fact Sheet HYG-2168-98. Wooster, OH: Ohio State University Extension.

Honey Bee Viruses

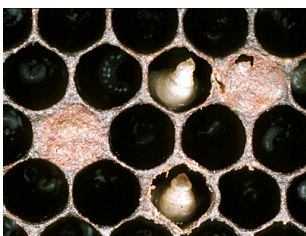
One of the most serious issues with Varroa Mites is the number of viruses that they transmit from honey bee to honey bee. While a mite is feeding on bee hemolymph the virus is transferred into the circulatory system of the host bee through the open wound. Once a nurse bee is infected, she can spread the virus by contaminating pollen and jelly fed to developing bees. Because these viruses are readily spread through Varroa Mites it is important that beekeepers are aware of the signs and symptoms of them.

Sacbrood



Sacbrood was the first honey bee virus to be discovered in the early 20th century and is widely distributed throughout the world. It is caused by a virus in the Iflavirus genus and is possibly the most common honey bee virus. This virus mostly affects worker larvae but can also infect the eggs and adult honey bees.

Once a larva consumes contaminated brood food it is infected with the virus. The virus multiplies within the diseased larvae causing it to lay on its back with its head raised up out of the cell. The infected larvae die shortly after being capped and turn from white to yellow and finally brown or black in color. The skin hardens and the larva fills with a fluid that causes it to look like a fluid-filled sac. It is this stage that gives the virus its name. Nurse bees will generally uncap the cell exposing or removing the dead larvae. Unlike those killed by foulbrood, larvae killed by sacbrood are easily removed from the cells intact.



Sacbrood is generally detected early in the spring before the nectar flow or during a prolonged dearth. It usually infects a small portion of the brood and subsides once the honey

flow begins. This virus often goes unnoticed by the beekeeper until the disease is too severe for the adult worker population to handle. At this point re-

queening with hygienic stock is recommended as antibiotics are not effective in preventing or controlling this virus.

Deformed Wing Virus (DWV)



Deformed Wing Virus is widely distributed and closely associated with Varroa mites. The virus titers and prevalence in colonies are directly linked to Varroa infestations. In heavily mite infested colonies almost 100 percent of the adult workers are infected with DWV and nearly all of them show symptoms. Bees showing symptoms will die within three days causing the colony to eventually fail. Additional symptoms of Deformed Wing Virus include early death of pupae, deformed wings, shortened abdomen and cuticle discoloration in adult bees. Not all mite infested pupae develop symptoms but all adult bees showing symptoms developed from parasitized pupae. Honey bees infected as adults can have high virus titers but do not develop symptoms. These bees were infected by mites.

DWV appears to replicate in Varroa mites, making them biological and physical vectors of the virus. Studies are showing that winter colony loss is strongly associated with the presence of Deformed Wing Virus regardless of the Varroa infestation during the winter. This suggests that Varroa mite counts should be greatly reduced far in advance of producing overwintering bees to ensure lower amounts of overwintering bees infected with the virus. Treatment of DWV is the immediate intervention to control the varroa mite infestation.

Black Queen Cell Virus (BQCV)



Unlike the other viruses that are associated with Varroa, Black Queen Cell Virus is also strongly associated with *Nosema apis*. This virus can be injected into honey bee pupae by Varroa mites but can only be orally transmitted among adult bees when they are also infected with *Nosema*. BQCV is most common in the spring and early

summer.

Black Queen Cell Virus primarily affects developing queen larvae. It can be found in adult bees but they do not seem to exhibit symptoms. When queen larvae are infected they die, turn pale yellow in color, then turn from brown to black as the virus name suggests. Once the queen is dead the outside of the cell will have a black oily spot. Queen larvae can be infected at any stage of development. Like the other viruses, BQCV cannot be treated with medication. Controlling the virus is as simple as sanitizing grafting tools, controlling Varroa and Nosema, as well as providing proper nutrition for the colonies.

Parasitic Mite Syndrome



Although no specific pathogen has been determined to cause Parasitic Mite Syndrome, the symptoms of several viruses in conjunction with a high Varroa count are generally present in a colony with Parasitic Mite Syndrome. One symptom is the presence of diseased brood. The larvae are white and appear to be chewed or pecked down by worker bees. They may appear sunken to the side of the cell and have some debris at the posterior end. Pupae appears chewed or removed as workers attempt to remove varroa mite infested larvae and pupae cells. In some cases the pre-pupal stage larvae are stretched out in the cells with their heads slightly raised. Unlike other diseases the larval remains will not rope but remain in a glob. Other symptoms include a spotty brood pattern, mites crawling on capped brood and present on adult bees, lack of adult population, and larger colonies seem aggravated by high varroa mite levels and show aggressiveness. Supercedure cells are often present and there is generally bees with Deformed Wing Virus present. Although there are a variety of symptoms that can occur, all of the diseased colonies are infested with Varroa Mites. The course of action for this disease is to keep Varroa Mite levels low.

Understanding these viruses and the role that Varroa Mites play in spreading them is a useful tool for

beekeepers to have. Knowing what to look for in the colonies and understanding how important it is to monitor Varroa Mite levels is an important line of defense in our battle to successfully overwinter honey bee colonies.

Resources:

Mid-Atlantic Apiculture Research and Extension Consortium (2015). *Diseases of Honey Bees*. MAAREC website. Retrieved July 26, 2015 from <https://agdev.anr.udel.edu/maarec/honey-bee-biology/honey-bee-parasites-pests-predators-and-diseases/diseases-of-honey-bees/ngallery/image/111>

Moore, Philip, Wilson, Michael, Skinner, John. (August 21, 2014) *Honey Bee Viruses, the Deadly Varroa Mite Associates*. Purdue University Extension website. Retrieved July 26, 2015 from <http://www.extension.org/pages/71172/honey-bee-viruses-the-deadly-varroa-mite-associates#.Vb0GovlVikp>

Ohio Dept of Agriculture. Pests of Honey Bees Fact Sheet. Retrieved July 26, 2015 from http://www.agri.ohio.gov/divs/plant/apiary/Docs/Apiary_Docs_FactSheets.pdf

The Pennsylvania State University. (2011). *A Field Guide to Honey Bees and Their Maladies*. University Park, PA.

Plant Health Australia. (2014). *Sacbrood Virus and Black Queen Cell Virus*. Bee Aware website. Retrieved July 23, 2015 from http://beeaware.org.au/pest_category/established-pests/

Scott-Dupree, C. (Editorial Chair). (2000). *Honey Bee Diseases & Pests*. Guelph, Ontario: Canadian Association of Professional Apiculturists.

Snyder, Rob. (December 4, 2013). *Black Queen Cell Virus*. Bee Informed website. Retrieved July 26, 2015 from <http://beeinformed.org/category/pest-and-disease-control/>

Photos Courteous of The Food and Environment Research Agency © Crown copyright 2015 and Rob Snyder

Answers to Commonly Asked Questions at the Fair



- 8 to 10 pounds of honey are consumed to make one pound of wax.
- Beeswax melts at about 149° F.
- The average lifespan of a worker bee is 40 days.
- The average summer hive contains 60,000 to 80,000 honey bees while a winter hive contains 20,000 to 30,000 bees.
- There is generally only one queen per hive. She lays about 2,000 eggs a day.

Clearing The Supers

by Walt Crawford

Thank you Floyd Marshall for sharing Walt's poems with us!

With weather warm when spring has sprung
the plants respond to rays of sun.
Then flower buds burst open wide
where nectar and the pollen hide.

Then honey bees from hives in trees
or from some beekeeper's apiary,
will search in the fields and trees around
and bring it home when nectar's found.

Much pollen too is used in the spring
to feed young bees as they begin,
when hatched from egg to larva state,
by rapid growth from food they've ate.

When weather's warm and sunshine's bright
the worker bees leave hive in flight,
and gather from the plants around,
until supers with sealed combs abound.

Removing bees from combs well capped,
by various means which we adapt.
We'll cover all the supers then
so bees don't enter them again.

A method used when hives are few-
just shake each frame and brush it too,
Then quickly place in box with cover
and back to the hive to get another.

Some use Bee-Go, it is stinking stuff.
It drives bees out, that's sure enough.
When sun shines hot they'll leave their hoard
if we make use of a fume board.

A small device that works first rate
is called a Porter Bee Escape.
When placed below a honey pack
the bees go down and can't come back.

One can be made with eight mesh screen
that works the best we've ever seen.
It usually take a day or two
for all the bees to get down through.

When brood is found in super cells
nurse bees up there won't leave so well,
but stay above where frames are hung
and faithfully attend their young.

Blasts of air from blower hose
will drive bees from between the rows
of frames in super stood on end.
No time is lost or bees offend.

With supers full of well sealed comb
and loaded for the drive back home,
we'll rest a while and then we'll think
how we could use a nice cold drink.



Infographic provided by [Earth Justice](#)



Sea Salt Honey No Churn Ice-Cream

Ingredients:

- 2 cups heavy whipping cream
- 1 (14 oz.) can sweetened condensed milk
- 1/4 cup honey plus 1 tablespoon for topping
- 1/2 teaspoon Fleur de sel sea salt

Directions:

1. Pour the whipping cream into the bowl of a stand mixer affixed with the whisk attachment. Start slow and increase speed to high and mix until the whipping cream forms stiff peaks, about 2 minutes. You can also use a bowl and hand mixer.
2. Using a spatula, gently fold the sweetened condensed milk, honey and sea salt into the whipping cream. Continue stirring gently until completely combined. Pour into a freezer safe container with an airtight lid. Drizzle with the remaining 1 tablespoon honey.
3. Freeze at least 6 hours until solid.
4. Scoop into cups, bowls or cones, drizzle with a little more honey and a pinch of sea salt. Enjoy.

Recipe from [Kitchen Treaty](#)

2015 Officers

President	Bruce Deafenbaugh	330-457-0326
V.President	Chuck Hatch	330-807-0848
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	George Stacy (2016)	330-360-8717
	Joe Schmidbauer (2017)	330-386-7763

2015 Ohio Queen Producers

The following Queen and Honey Bee Producers have generously supplied our association with queen certificates for door prizes. Please show your appreciation when doing business with them.

Williams Honey Bees

Frankfort, Ohio

740-998-4380

Check out the [Williams' Etsy Shop](#) Also!

Mike's Bees and Honey

Forest, Ohio

419-365-9902



Special thanks to our generous suppliers who have provided us with catalogs, donations and door prizes. It means a lot to these folks to hear back from you, so be sure to mention our association when doing business with them:

2015 Supporters

A.I. Root- Bee Culture	Gardner's Apiaries
Basco Inc.	Golden Bee Products
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Draper's Super Bee Apiaries	Western Bee Supplies
Ernst Seeds	Wicwas Press

Click on the company name to visit their web site.

Article or recipe suggestions and submissions are accepted and appreciated. Please provide them by the second of each month.

Heidi Schmidbauer

870 Center Road

East Liverpool, Ohio 43920

(330)386-7763

hschmidbauer@columbianamahoningbeekeepers.org