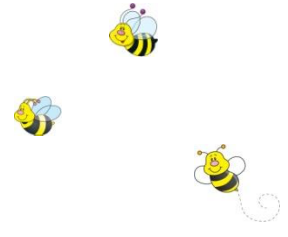


The Skep



President's Corner

Hello Beekeepers!

Last month members talked about what they had learned at Beginning Beekeeping classes and at the Western Pennsylvania Seminars. Mike and Diana Ferreri showed us their swarm nuc box, explained how to build one and where to place it in your apiary. Mike suggested using lemon grass oil as a bait in your swarm boxes. After Diana showed the video of the box in action, they offered one as a door prize. Thank you both!

During the meeting we took orders for packages of bees. If you would like to order packages from Simpson's please call me right away. I need to have all orders and payment by March 6 so I can turn it in.

March's Beekeeper To-Do List includes bleaching, cleaning and re-painting old equipment so everything is ready to go for the spring push. Also beekeepers should be building and installing swarm boxes as mentioned above and ordering packages of bees.

Finally, as we wait for warmer weather, continue to read and attend seminars and classes so you can gather new ideas and learn about new products like pollen patties, wax molds, and queen rearing equipment.

Keep feeding the bees on warm days. I hope to see you at the next meeting on March 15.

Come on spring!
Bruce Deafenbaugh

2015 Tentative Meeting Dates & Locations

April 19	Experimental Farm
May 17	Marsha & Dave Coakley
June 21	Bruce & Andrea Deafenbaugh
July 19	Bruce & Michele Zimmer
August 16	Don Kovach's Parents' Home
September 20	Nick Deemer
October 11	Fellows Riverside Gardens

When hosting a meeting please provide ice, beverages, trash cans and extra cups, plates and silverware. Thank you!

March Meeting Details

Sunday, March 15, 2015

Potluck Lunch 1:00 p.m.

(Bring your own plates, cups and silverware please.)

Meeting 2:00 p.m.

Mahoning County Experimental Farm
7574 Columbiana-Canfield Rd
Canfield, Oh 44406

From Rt 11 North take the Ohio 46 exit toward OH-14. Turn left onto OH-46 North for approximately 6.2 miles. The Farm is on the left across the street from the Canfield Fairgrounds.

From Rt 11 South take exit 34 for US-224 toward Poland/Canfield. Continue on Fairground Blvd. for about 1.7 miles until you reach OH-46 South. Turn left onto OH-46 South. The Farm will be on the right across the street from the Canfield Fairgrounds.



Braving the Cold for Bees



Many brave (or crazy depending how you look at it) beekeepers battled the extreme cold and crazy amounts of snow to attend the February meeting. It was great to see everyone and was wonderful to spend some time talking about honey bees!



As promised, several members shared what they learned at various seminars and classes. Tim Cassidy attended a Beginning Beekeeping class and told us a little bit about what he learned. He said he found the course very helpful and encouraged others to take a class when they could. Floyd Marshall and Bruce Deafenbaugh attended the Penn State Seminars and described a fact and fun filled afternoon the previous day. Floyd told a little bit about the importance of honey bee nutrition and Bruce reiterated the focus on honey bee health and stressed that we need to feed the bees.



Members Mike and Diana Ferreri demonstrated the swarm trap nuc that Mike built and used in his apiary last year. Mike explained the design, provided copies of the dimensions and showed a

video of a swarm moving into the box. Mike has eight boxes hanging in and around his apiary and was able to catch ten swarms last year using lemongrass oil and a small piece of old comb as bait.



If you missed the meeting and would like to know more about Mike's swarm box or any of the classes and seminars that we discussed, feel free to ask at the next meeting.

Lemongrass Oil Swarm Lure Recipe



1/4 cup olive oil
1/4 oz. beeswax
20 drops of Lemongrass Essential Oil

1. Melt the beeswax in a glass measuring cup that is sitting in a pan of boiling water.
2. Add the oil and lemongrass oil and stir to combine.
3. Remove from heat and carefully pour into a glass jar to cool.

Use by spreading the waxy paste on the tops of frames or inside a bait hive.

Original recipe from Linda Tillman of [Linda's Bees](#).

Early Bloomers

As the snow begins to melt, honey bees will be busy gathering the first of spring's nectar and pollen supplies. Currently in the beekeeping community there is a lot of discussion about the importance of honey bee nutrition. While feeding our bees is crucial, it is also our responsibility to know what trees and plants are blooming nearby that provide nourishment for our colonies.



In late February and early March honey bees are visiting the first blooms of the Silver Maple (*Acer saccharum*) and Red Maple (*Acer rubrum*) trees. The blooms of both deciduous trees offer a major pollen and nectar source for honey bees. As you watch your bees re-enter their hive, you can observe the pollen sacs loaded with the greenish pollen of the Silver Maple or the yellow pollen of the Red Maple flowers. Alder trees (*Alnus viridis*) and American Hazelnut shrubs (*Corylus americana*) also offer a abundant source of pollen but do not offer nectar. The pollen of both species are greenish-yellow in color.



Very early blooming flowers such as the bright yellow Winter Aconite (*Eranthis hyemalis*), the crisp white Snowdrops (*Galanthus nivalis*), and the green and purple margined Hellebore (*Helleborus foetidus*) will offer the bees a rich source of both nectar and pollen as the snow lingers on the ground. The pollen pellets of these plants range in color from yellow to yellowish-orange.



As March progresses the Crocus (*Crocus spp.*) flowers appear. The color of the

bloom is dependant of the type but all provide nectar and generous amounts of nutritious pollen. The pollen pellets are bright orange from Crocus blooms and are readily spotted in the honey bees' pollen sacs.



Honeysuckle (*Lonicera fragrantissima*) and Pussy Willow (*Salix caprea*) shrubs are abundant pollen producers in March. The yellow pollen is a rich source of nutrition. Both shrubs also produce ample amounts of nectar for honey bees during a period of time that nectar flow is limited by cooler weather conditions.

Knowing the natural nectar and pollen availability in your area will help a beekeeper ensure that the honey bees are receiving the proper nutrition that is needed for good health.

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.

Photos Courtesy of Wikipedia.org

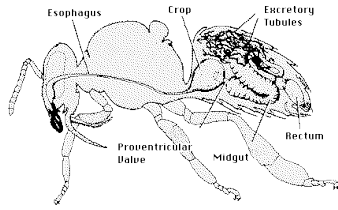
BeeSmart™
Pollinator Gardener



Bee Smart Pollinator Gardener app is a guide to selecting plants for pollinators specific to your area. It is available free of charge on Android and iOS devices through Google play or the App Store. Using the app allows the gardener to browse or search a database of almost 1,000 native plants, filtering by what pollinators you plan to attract, light and soil requirements, bloom color and plant type. A custom plant list can be created and saved by starring your favorites. If using an app isn't of interest, the website also provides ecoregional planting guides, *Selecting Plants for Pollinators*, that can be printed. Find out more about the app and planting guides at www.pollinator.org.

Nosema Disease

Unlike with Varroa mites, chalkbrood and other honey bee maladies, hives infected with Nosema may show no obvious signs of disease. So what is Nosema, how can a beekeeper detect it and what should be done to prevent or treat it?



Nosema is an adult honey bee disease that is caused by the microsporidian parasites

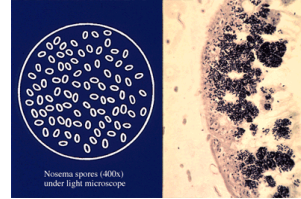
Nosema apis and *Nosema ceranae*. The spores from this fungal parasite enter a bee through the mouth when feeding, drinking water or cleaning contaminated feces from the hive. Once the spores germinate, the parasite invades the midgut of the bee and multiplies. During this process the honey bee develops an inability to digest food.

It is this inability to digest food that reduces the life span of an infected bee by up to 78% and makes it unable to feed brood. As the death rate of the bees exceeds the birth rate, the colony begins to dwindle in size and becomes much less productive. Along with bee population reduction, symptoms can include queenlessness, supersedure and reduced honey yields.

Nosema apis infection is most often a problem when colonies fail to build up as the winter months end and early spring arrives. Generally honey bees increase in numbers during this period but in a hive heavily infected with *Nosema apis*, the bees are unable to care for brood no matter how readily available food is. Symptoms of dysentery may develop as a result of the damage to honey bees' digestive tracts also. The spores of *N. apis* are resistant to cold but not to heat so the spore levels in the hive drop as the temperature rises and bees defecate away from the hive.

Nosema ceranae infection is responsible for over 90% of Nosema infections in the

United States. Unlike *N. apis*, *N. ceranae* infections are frequently detected during the summer months and without any accompanying signs of dysentery. It has been found that *N. ceranae* depresses the level of vitellogenin and may shorten a bee's lifespan in this manner as well as through starvation.



The only reliable method for the identification of Nosema Disease is through microscopic

examination of adult bees. Collection of bees when Nosema is suspected needs to take place at the entrance of the hive. This ensures that the sample bees are old enough to forage and thus old enough to have the Nosema spores found in the midgut. A beekeeper, bee business or regulatory official may submit samples to the [Bee Research Laboratory](#) in Beltsville, Maryland. This service is free of charge but requires the submitter to follow specific instructions to maintain the integrity of the sample.

Following best management practices is the most effective prevention of Nosema. First, select wintering sites carefully. The sites should be sheltered against cold wind and open to the south to allow cleansing flights when weather permits. Next, hives should be kept off the ground and sufficient airflow within each hive needs to be present. Third, continually replace frames of old comb to control the spore build up. Most effectively, colonies should enter the winter months with strong numbers of honey bees, a vigorous queen bee and **plenty of honey and pollen.**



There are treatments available for Nosema if prevention is not enough. [Fumagillin](#) is an antibiotic used to minimize the effects of

Nosema apis. According to the [manufacturer's directions](#) treatment must be complete at least 4 weeks before adding honey supers.

Although Fumagilin-B is approved for use in the United States, it has been banned in several areas of the world including Australia, New Zealand and the European Union because it has dangerous effects on humans. Fumagillin has no effect on the spores but is effective against the actively growing stages of the parasite. Recent studies are showing that the current application protocol of fumagillin increases the *Nosema ceranae* infection rather than suppress it. In the hive and on equipment, the spores of *Nosema apis* can be destroyed with heat. In contrast, the spores from *Nosema ceranae* are susceptible to cold weather and can be destroyed by freezing.

Nosema apis and *Nosema ceranae* parasites invade the midgut of worker, drone and queen honey bees. With vigilance and proper hive management a beekeeper can help prevent Nosema Disease from overtaking a hive.

Resources:

Bush, Michael. (2008) *Nosema*. The Practical Beekeeper Website. Retrieved February 20, 2015 from <http://www.bushfarms.com/beesnosema.htm>

Mid-Atlantic Apiculture Research and Extension Consortium (2015). *Nosema* MAAREC website. Retrieved February 10, 2015 from <https://agdev.anr.udel.edu/maarec/honey-bee-biology/honey-bee-parasites-pests-predators-and-diseases/diseases-of-honey-bees/nggallery/image/117>

Oliver, Randy. (2009) *Nosema ceranae*: Kiss of Death or Much Ado about Nothing? Scientific Beekeeping website. Retrieved February 15, 2015 from <http://scientificbeekeeping.com/nosema-ceranae-kiss-of-death-or-much-ado-about-nothing/>

Oliver, Randy. (2011) Sick Bees-Part 14: An Update on the "Nosema Cousins" Scientific Beekeeping website. Retrieved February 10, 2015 from <http://scientificbeekeeping.com/sick-bees-part-14-an-update-on-the-nosema-cousins/>

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

Schneider, David (Editor). (March 2013). *Nosema ceranae* Escaped Fumagillin Control in Honey Bees. PLOS Pathogens website. Retrieved February 20, 2015 from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3591333/>

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

United States Department of Agriculture (January 2010). *Nosema* Disease. USDA website. Retrieved on February 10, 2015 from <http://www.ars.usda.gov/Research/docs.htm?docid=7459>

Photos Courteous of The Food and Environment Research Agency
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Honey Bee Diagram Courteous of Koning, Ross E.(1994) Honeybee Biology. Plant Physiology Website. Retrieved on February 20, 2015 from http://plantphys.info/plants_human/bees/bees.shtml

Submission of Samples for Diagnosis

~Samples are accepted from U.S. states and Canada.

~ Include a short description of the problem along with your name, address and phone number or email address.

How to Send Adult Honey Bees:

~ Sent at least 100 bees and if possible select bees that are dying or have died recently. Decaying bees are not satisfactory for examination.

~ Bees should be placed in and soaked with 70% ethyl, methyl or isopropyl alcohol as soon as possible after collection and packed in a leak proof container.

~ Just prior to mailing samples, pour off excess alcohol to meet shipping requirements. USPS, UPS and FedEx do not accept shipments containing alcohol.

Do NOT send dry bees.

How to Send Brood Samples:

~A comb sample should be at least 2x2 inches and contain as much of the dead or discolored brood as possible. No honey should be present in the sample.

~ The comb should be sent in a paper bag or loosely wrapped in a paper towel, newspaper, etc. in a heavy cardboard box. Avoid wrappings such as plastic, aluminum foil or waxed paper because they promote decomposition and growth of mold.

Send samples to:

Bee Disease Diagnosis
Bee Research Laboratory
Bldg. 306 Room 316
Beltsville Agricultural Research Center-East
Beltsville, MD 20705

For additional information contact Bart Smith at (310)504-8821 or email

bart.smith@ars.usda.gov.

Visit the USDA web page at <http://www.ars.usda.gov/Services/docs.htm?docid=7472>



Honey Garlic Chicken

- 1 cup vegetable oil
- 1 cup all purpose flour
- 1 teaspoon dried thyme
- 1 teaspoon dried oregano
- 1/2 teaspoon paprika
- 1/4 teaspoon cayenne pepper
- 1 pound boneless skinless chicken breasts, cut crosswise in half
- 2 large eggs, beaten
- salt and pepper to taste

For The Honey Garlic Sauce

- 1/2 cup honey, or more to taste
- 4 cloves garlic, minced
- 2 Tablespoons soy sauce
- 1 Tablespoon cornstarch

1. In a medium saucepan over medium heat, combine honey, garlic, soy sauce. In a small bowl, combine cornstarch and 1/4 cup water. Add mixture to the saucepan and continue to stir until thickened. Remove from heat and set aside.

2. Heat vegetable oil in a large skillet over medium high heat.

3. In a shallow dish combine flour, thyme, oregano, paprika and cayenne pepper.

4. Season chicken with salt and pepper to taste. Working one at a time, dredge the chicken in the flour mixture, dip into eggs, then dredge in the flour mix again, pressing to coat.

5. Working in batches, add chicken to hot skillet and cook until evenly golden and crispy, about 3-4 minutes per side. Transfer to a paper towel-lined plate.

Serve immediately with Honey Garlic Sauce. The sauce is also delicious drizzled over wild rice.

Recipe courtesy of damndelicious.net website.

2015 Officers

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	George Stacy (2016)	330-360-8717
	Joe Schmidbauer (2017)	330-386-7763

2015 Ohio Queen Producer

The following Queen and Honey Bee Producer has 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!](#)



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:

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A.I. Root- Bee Culture	Gardner's Apiaries
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Bee Smart Designs	International Mating Nuc Inc
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Brushy Mountain	Koehnman & Sons Inc.
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Dakota Gunness	Valley Bee Supply
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.*

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