SEMBA NEWS

Volume 23 Number 4 Newsletter of the Southeastern Michigan Beekeepers' Association
June/July 2013

SEMBA SUMMER PICNIC

When:
Sunday, July 21, 2013. Potluck at 1:30 p.m.
Where:
MSU Tollgate Education Center;
28115 Meadowbrook Road, Novi, MI 48377.
(Northwest corner of 12 Mile and Meadowbrook.)
See http://tollgate.msu.edu/

Please bring a dish to pass, your own table service and beverage. Cups and napkins will be provided.

RSVP Mandatory: Due to the likelihood of hot weather, arrangements have been made to use the A/C main conference room which has limited seating capacity. Accordingly, TIMELY RSVPs ARE NECESSARY! If you will be attending, RSVP to Clay Ottoni by July 14, 2013. ceottoni@gmail.com or call 248-454-9800.

Member prizes: All SEMBA members who timely RSVP will be entered into a drawing for additional prizes. Members must be present to win. Please RSVP!

Program
Weather permitting, there will be a tour of Tollgate Farm and Apiaries (e.g., SEMBA's Beginning Beekeepers' Class apiary).

Slide-lecture presentation by MSU faculty/staff including our own Dr. Meghan Milbrath, a postdoctoral fellow at MSU, who will discuss the Northern Bee Network and the Michigan Survivor Program as well as Dealing with Hives that want to Swarm. Additionally, Dr. Walter Pett, a MSU Asst. Professor & Undergrad Advisor, has offered to discuss beekeeping methods outside the United States.

Sale and/or exchange: Members are invited to bring items to sell or exchange such as queens, queen cells and beekeeping equipment. However, to safeguard the apiaries (e.g., SEMBA's Beginning Beekeepers' Class apiary), please do not bring any pests, diseased items or anything else that could be harmful.

MICHIGAN 2013 HONEY FESTIVAL

When: Saturday, July 27, 2013, 10 am to 5 pm.
Where: Eastern Michigan State Fairgrounds, 195 Midway Street, Imlay City, MI 48444.

Featured activities are demonstrations of mead making, honey extraction, candle making, cooking with honey, bee plant information, bee beard and visiting vendors.
For more information visit:
www.michiganhoneyfestival.org

A NOTE TO THE EDITORS

I want to thank you for putting me (and my student organization) in contact with Carl and Linda from Hardy Bee Farms during the SEMBA Conference. (Hardy Honey Bee Farms is owned and operated by Linda Daleo, who is a member of the Southeastern Michigan Beekeepers' Association (SEMBA). They were so generous to donate a colony to us. They gave us an amazing colony in a deep super, as well as another deep super, a medium, a bottom board, an inner and outer cover, a top feeder, and all the frames with wax foundation. The colony has grown so fast that I have added the other deep already.

I am so grateful for Hardy Bee Farms' generosity and to you for putting me in contact with them. We have already had many educational outings to the UMBees Apiary where many students, new to bees, have learned about beekeeping and the importance of a positive human/honey bee interaction.

Parker Anderson
President, UMBees
University of Michigan

IN MEMORIAM

KARIN SANDERS, wife of SEMBA Director Fritz Sanders, died peacefully at home on May 12, 2013, at the age of 77. Karin is the dear mother of Marlies (Mark) Manning, Eric (Vicky) Sanders, Martina (Mark) Webb, and Karin (Joe) Heidelberger. She is survived by ten grandchildren and 2 brothers.

THE BEE INFORMED PARTNERSHIP (http://beeinformed.org), in collaboration with the Apiary Inspectors of America (AIA) and the United States Department of Agriculture (USDA), is releasing preliminary results for the seventh annual national survey of honey bee colony losses. For the 2012/2013 winter season, a total of 6,287 U.S. beekeepers provided validated responses. Collectively, responding beekeepers managed 599,610 colonies in October 2012, representing about 22.9%1 of the country's estimated 2.62 million colonies.

Preliminary survey results indicate that 31.1% of managed honey bee colonies in the United States were lost during the 2012/2013 winter. This represents an increase in loss of 9.2 points or 42% over the previous 2011/2012 winter's total losses that were estimated at 21.9%. This level of loss is on par with the 6 year average total loss of 30.5%.

On average, U.S. beekeepers lost 45.1% of the colonies in their operation during the winter of 2012/2013. This is a 19.8 point or 78.2% increase in the average operational loss compared to the previous winter (2011/2012), which was estimated at 25.3%. The difference between average loss and total loss is explained by the respondent pool: while a majority of the respondents (95%) were backyard beekeepers, they managed a small fraction of the colonies represented in the survey (6%). For this reason total loss (which is more heavily influenced by commercial beekeeper losses) is more representative of national losses.

PENN STATE CENTER FOR POLLINATOR RESEARH, SECOND INTERNATIONAL CONFERENCE ON POLLINATION BIOLOGY, HEALTH AND POLICY, WILL BE HELD AUGUST 14-17, 2013, AT THE NITTANY LION INN ON THE PENN STATE UNIVERSITY PARK CAMPUS

Pollinators are essential for both plants and animals in agriculture and natural ecosystems, but there have been dramatic declines in pollinator populations world-wide. Pollinator decline not only has alarmed the scientific community, but has gained prominence in the popular press, raising the public's awareness about threats to our ecosystem. The causes for pollinator decline are complex, and it is thought that a combination of many stressors are responsible, including parasites, pathogens, environmental toxins, and poor nutrition and habitat loss. The 2013 conference will include presentations on all these topics, but will especially highlight the effects of environment contaminants on pollinator genomics, development, physiology and behavior. This conference will bring together individuals from universities, government agencies, agrochemical companies, non-profit organizations, and several stakeholder groups to engage in a dialog about the research, management, conservation and policy approaches needed to tackle these issues. When this conference was first held in 2010, it attracted over 200 participants from fourteen countries.

For more information about the conference, please contact the organizers: Christina Grozinger (cmg25@psu.edu), Chris Mullin (camullin@psu.edu), and Neal Willliams (nmwilliams@ucdavis.edu).

"POLLEN NUTRITION AFFECTS HONEY BEE STRESS RESISTANCE" – Reviewed by Doug McRory

Dr. Zachary Huang out of Michigan State University recently wrote a review titled Pollen Nutrition Affects Honey Bee Stress Resistance. Dr. Huang first talks about what makes a good pollen. There are two components that bees need: crude protein and 10 essential amino acids. The best pollens have over 25% protein and the complete set of the 10 amino acids. There are few types of pollen with all the amino acids, so bees tend to do best when they have access to a variety of pollens. Beekeepers should look for a frame with a diversity of pollen. Different colors indicate that the pollens came from different plants.

Dr. Huang's paper showed that when bees have good nutrition, they are more resistant to many different stressors. If bees have good pollen diet, they have a lifespan almost twice as long as bees without, and that pollen affects genes for antimicrobial peptides. Bees exposed to *Nosema apis* or *Nosema ceranae* have a longer lifespan if they had a pollen diet verses infected bees without the pollen diet. Bees feed a pollen supplement had lower Deformed Wing Virus titers than those fed only sugar syrup. A pollen diet also had a positive effect on colony populations in the presence of Varroa mites, although the mites had a larger effect. Overall, Dr. Huang's paper showed pretty conclusively that a better pollen diet leads to more robust bee colonies.

Source: Terrestrial Arthropod Reviews, Volume 5, Number 2, 2012 , pp. 175-189.

WINN'S WINNING METHOD OF REQUEENING A LAYING WORKER HIVE

By Winfred (Winn) D. Harless and Clay E. Ottoni

Place the frames and bees (including the laying queen) from a queen right nuc into an empty hive body and add additional frames (e.g., frames of honey and/or pollen with frames of empty drawn out foundation and/or even just bare foundation) to fill the new hive body. Determine the main entrance of the laying worker hive. Is it either the top or bottom entrance? You can determine this by watching the bees fly to the laying worker hive. The entrance with the most bees flying in should be considered the main entrance.

If the bottom entrance is the main entrance of the laying worker hive, take the laying worker hive off its bottom board and brush the bees that are on the bottom board into the laying worker hive. Place the queen right hive body on the bottom board of the laying worker hive. Then, place a single sheet of black and white newspaper over the queen right hive body. Next, place the laying worker hive on top of the sheet of newspaper. Give the bees from the laying worker hive a way out by turning the notch of the inner cover down and to the front. The majority of the forager bees will go out of the laying worker hive by way of the notch and return to the hive by way of the bottom entrance -- where the queen right hive body is located.

If the top entrance is the main entrance of the laying worker hive, remove the inner and outer covers from the laying worker hive and brush the bees that are on the two covers into the laying worker hive. Place a single sheet of black and white newspaper over the top box of the laying worker hive. Then, place the queen right hive body on top of the sheet of newspaper. Next place the inner and outer covers on the queen right hive body being sure to maintain the opening of the upper entrance. Again, the majority of the forager bees will leave the laying worker hive and return to the hive by way of the queen right hive body.

In either case (i.e., whether the main entrance of the laying worker hive is the bottom or top), the foragers, returning with supplies (e.g., pollen, nectar, water, etc.), should be accepted in the queen right hive body. The pheromones from the queen and her brood will seep through the newspaper and suppress the laying workers' urge to lay additional eggs. Over time, the bees will remove the single sheet of black and white newspaper and you will be left with a queen right hive.

For both of us, this method has worked every time.

RECEPTION AND LEARNING OF ELECTRIC FIELDS IN BEES

Honeybees, like other insects, accumulate electric charge in flight, and when their body parts are moved or rubbed together. We report that bees emit constant and modulated electric fields when flying, landing, walking and during the waggle dance. The electric fields emitted by dancing bees consist of low- and high-frequency components. Both components induce passive antennal movements in stationary bees according to Coulomb's law. Bees learn both the constant and the modulated electric field components in the context of appetitive proboscis extension response conditioning. Using this paradigm, we identify mechanoreceptors in both joints of the antennae as sensors. Other mechanoreceptors on the bee body are potentially involved but are less sensitive. Using laser vibrometry, we show that the electrically charged flagellum is moved by constant and modulated electric fields and more strongly so if sound and electric fields interact. Recordings from axons of the Johnston organ document its sensitivity to electric field stimuli. Our analyses identify electric fields emanating from the surface charge of bees as stimuli for mechanoreceptors, and as biologically relevant stimuli, which may play a role in social communication.

Published by the Royal Society, March 2013

SEMBA WINTER-LOSS SURVEY 2012/2013

Sixty-two SEMBA members reported 515 hives alive in October, 2012 and 240 still alive in April 2013. The total losses were 54%.

Winter loss in 2011/2012 was 18%. Winter loss in 2010/2011 was 59%.

QUEEN REARING COURSE

Michigan State University will be offering a Queen rearing course this summer on Saturday, June 29th and Sunday, June 30th. This course is designed to offer basic queen biology, basic steps in queen rearing, and to provide an opportunity for hands-on training for queen-rearing techniques. The course is designed for those with at least one year bee experience, but no experience or knowledge about raising queens is necessary. Registration and more information can be found at michiganbees.org and bees.msu.edu

NEW BEE CLUB IN SOUTHEASTERN MICHIGAN

Beekeepers in the St. Clair County, Michigan area have met to organize a new beekeeping club at the Pine River Nature Center located at 2585 Castor Road, Goodells, MI 48027. Beekeepers and those interested in beekeeping were invited to attend an organizational meeting at 6:30 pm, Tuesday, June 18, 2013. Their Facebook page is http://www.facebook.com/PineRiverBeekeepingClub. For more information please contact Don McChristian at PineRiverBeekeeping@gmail.com or (586) 610-1867.
(For more information about the extremely well appointed Pine River Nature Center, please see: http://www.sccresa.org/countyeducation/resaserviceseducation/pinerivernaturecenter/hoursanddirections.)

BEEKEEPING MEETINGS IN SOUTHEASTERN MICHIGAN

Oakland Bee Club

Meets at 7:00 pm at the E.L. Johnson Nature Center, 3325 Franklin Rd., Bloomfield Township, MI. For information contact Dennis Holly 1-248-542-1316 or Hollysapiaries@yahoo.com. Future 2013 meeting dates are: July 2, August 6, September 3, October 1, November 5, and December 3.

Monroe Bee Club

Meetings in Monroe are held the 3rd Monday of (most) months, 6:30 pm to 8:00 pm, at the MSU Extension Building, 963 South Raisinville Road, Monroe, MI. For information contact Bill Bray at braybill@hotmail.com.

Ann Arbor Backyard Beekeepers

The Ann Arbor Backyard Beekeepers usually meet the 2nd Tuesday of each month at Matthaei Botanical Gardens. To be notified by email for the date and agenda, contact Richard Mendel, brescue@att.net.

SEMBA Bargain Corner

For Sale:

Beekeeping supplies and equipment. Contact Keith Lazar, keithmlazar@hotmail.com or phone 248-626-2483. Honey bee colonies for sale in different stages of growth. The price starts at $110.00 for a 5 frame nuc and up. I would sell these colonies with the price plus equal equipment. Call Mazin Malalla at 313-999-3180.

Notice:

Romulus Farmers Market is looking for honey vendors. Stall fee is $10.00 per week. More information can be found at http://www.romulusfarmersmarket.com or http://www.facebook.com/romulusfarmersmarket. Or Calling Jazmine Bennett at @ 734-497-5296

Honey for sale or honey wanted: **Send your name to the Sutherlands, 5488 Warren, Ann Arbor, MI 48105, or rsuther@hotmail.com** Names will be printed in the next newsletter and posted on the sembabees.org web pages.

Ads in the Bargain Corner are free to SEMBA members. To place an ad, contact Roger Sutherland rsuther@sembabees.org.

Southeastern Michigan
Beekeepers' Association
Organized April 1, 1934

SEMBA Membership
5488 Warren Road
Ann Arbor, MI 48105-9425

Oakland Beekeepers' Club

Schoolcraft Beekeepers' Club