SEMBA NEWS

Volume 22, Number 4 Newsletter of the Southeastern Michigan Beekeepers' Association June/July 2012

JOINT MBA AND SEMBA SUMMER PICNIC

Where: MSU Tollgate Education Center; 8115 Meadowbrook Road, Novi, MI 48377. (Southwest corner of 12 Mile and Meadowbrook; See http://tollgate.msu.edu/)

When: Sunday, July 22, 2012, at 1:30 p.m.

Potluck lunch (with a starter of lunch meat, cheese and bread for 75 provided). Please still bring a dish to pass, your own table service, and a chair.
Beverages, cups and napkins will be provided.

Program:
Tour of Tollgate Farm and Apiaries (e.g., SEMBA's Beginning Beekeepers' Class apiary)

Slide-Lecture Presentation by Roger Sutherland
"*Insect and Flower Relationships"*

Door prizes -- Olivarez Honey Bees, Inc., has graciously agreed to ship 10 queens (3 OHB Italian, 4 Minnesota Hygienic, and 3 New World Carniolan) to Clay Ottoni, on July 18, 2012, and SEMBA will give all of the queens **that live** to attendees via 'door prizes'.

Sale and/or exchange -- Queen, queen cell and beekeeping equipment. 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.

ANN ARBOR BACKYARD BEEKEEPERS (A2B2)

A2B2 meets the second Tuesday of each month at the Matthaei Botanical Gardens, 1800 North Dixboro Road, Ann Arbor, MI. If you wish to be on the e-mail notification list, contact the group's leader, Richard Mendel, brescue@att.net or 734-660-8621.

NEW VIDEO AVAILABLE FOR LOAN FROMTHE SEMBA LIBRARY

A new video, "*Queen of the Sun, What Are the Bees Telling Us*" is available on loan to SEMBA members, thanks to Bernadette Ethridge's generous donation. A complete list of videos available can be viewed by going to sembabees.org and click on SEMBA Resources.

PROMISCUOUS QUEENS MEAN HEALTHIER HIVES

Wellesley College honey bee ecologist Heather Mattila has found the secret to why promiscuous queens produce healthier honey bee colonies. Her research finds the link between genetic diversity and healthier bee colonies is in the makeup of the microscopic life found inside the guts, on the bodies, and in the food of the bees.

She finds that genetically diverse populations of worker bees, a result of the highly promiscuous mating behavior of queens, benefits from diverse symbiotic microbial communities, reduced loads of bacteria from pathogenic groups, and more bacteria related to helpful probiotic species – famous for their use by humans to ferment food. The study, reported in the journal published in PLoS ONE, provides the first major insight into how honey bee colony health could be improved by diversity.

Mattila and other researchers have long observed that a high level of genetic diversity within a colony – which occurs when a queen bee mates with multiple males – improves the colony's overall health and productivity, though how colony members produce this effect was largely unknown. Led by Mattila and Irene Newton, a microbiologist at Indiana University, the research team compared two groups of honey bee colonies.

The first group consisted of genetically diverse populations, produced by promiscuous queen bees that had been inseminated by different mixes of 15 male bees. The second group of colonies was genetically uniform, comprised of offspring from queens mated with a single male each. Using 16S rRNA pyrosequencing, an advanced molecular technique that had never before been used to study active bacteria in honey bees, the scientists were able to identify

and compare bacteria across the colonies. The results were astonishing. The researchers found that diverse honey bee colonies showed a significantly greater variety of active bacterial species with 1,105 species, while only 781 species were found in uniform worker populations.

Furthermore, active bacteria from genetically uniform colonies consisted of 127% more potential pathogens, while diverse colonies had 40% more potentially beneficial bacteria. The team made another surprising discovery – four bacteria known to aid in food processing in other animals dominated bacterial communities in colonies, many of which had never been reported in honey bee colonies.

It identified Succinivibrionaceae, a group of fermenters in animals such as cows; Oenococcus, which are used by humans to ferment wine; Paralactobacillus, used to ferment food; and Bifidobacterium, which is found in yogurt. "We've never known how healthier bees are generated by genetic diversity, but this study provides strong clues," Mattila says.

"Our findings suggest that genetically diverse honey bees have the advantage of broader microbial communities, which may be key to improving colony health and nutrition – and to understanding factors that can mitigate honey bee decline." Newton says, "The team found that genetically diverse colonies have a more diverse, healthful, active bacterial community. Conversely, genetically uniform colonies had a higher activity of potential plant and animal pathogens in their digestive tracts".

The discoveries are important because honey bees, like humans and other animals, depend on the helpful communities of bacteria that live within their guts. In honey bees, active bacteria serve a critical function – they aid in the transformation of pollen collected by worker bees into 'bee bread', a nutritious food that can be stored for long periods in colonies and provides honey bees with most of their essential nutrients. Most researchers believe that poor nutrition has hindered the ability of colonies to defend themselves against health problems, such as colony collapse disorder.

Mattila, who has been investigating the benefits of genetic diversity in honey bees for seven years, was thrilled by these findings, which were made possible by incorporating Newton's microbial expertise into the study."It is our first insight into a means by which colony health could be improved by diversity," she says. "It shows one of the many ways that the function of a honey bee colony is enhanced when a queen mates promiscuously, which is an unusual behavior for social insects. Most bees, ants, and wasp queens mate singly and produce colonies of closely related, single family workers. Honey bee queens are different in this regard, and this behavior has resulted in extremely productive colonies that dominate their landscape."

~*Source: Catch the Buzz*, March 2012

NEWS FROM THE MICHIGAN STATE APIARIST

Why are bees not registered in Michigan? Would it be that expensive to set up a voluntary registration web site? Without accurate numbers of hives and their locations within Michigan it will be difficult (impossible) to get improved funding for Michigan beekeepers or a State Apiarist Program.

In June of 1993, a group of Michigan beekeepers approached the Michigan Legislature and requested changes in Michigan Apiary Law. Apiary registration was struck from Michigan's law in July of 1993. Also struck was MDARD's right of entry to inspect colonies suspected of being diseased. The Apiary Law in Michigan has always been a regulatory law, not a beekeeping extension program, though in most cases in the US inspectors and beekeepers have a history of working together to promote healthy colonies. Inspection and cooperation with beekeepers first brought serious bee diseases under control in the 1920's and kept disease rates low until the inspection program was effectively removed in 1993. Strong inspection coupled with the careful and judicious use of antibiotics to prevent American Foulbrood were strong components of a healthy bee population in Michigan.

What would it cost? Michigan's apiary registration charge was only $5 per apiary in 1993. The law called for a 1 to 1 match of apiary registration dollars and state funding to run the program. In fact, the state provided more than 10 fold the amount required by law. By the late 1990's funding to apiary programs was pretty much eliminated.

There have been attempts by members of the Michigan Beekeepers' Association to set up a voluntary registration program in Michigan, and those efforts died for lack of support.

Michigan's beekeepers will need to determine if the cost of re-establishing a state apiary inspection program is worthy of the cost to run both a registration and an inspection program. At this time there are very few dollars available. In fact, as governments get leaner around the country, traditional inspection programs are being scrutinized in several states.

~by: Mike Hansen Michigan State Apiarist

SEMBA DUES AND MEMBERSHIP CARDS

Last November, the SEMBA board voted to alter the dues structure as follows: (1) dues for those electing to receive their newsletters by email are $10 per individual, $15 per family; (2) dues for those electing to receive their newsletters by postal mail are $20 per individual, $25 per family. The board also voted to eliminate membership cards; however, membership cards will be sent to those who request them.

TOP BAR HIVE REPORT

The top-bar hive presented to us at the SEMBA Conference on March 17, 2012 is doing well. In early April, we varnished the beautifully engineered structure which was constructed by Winn Harless. Then on April 20th, we installed a 3 pound package of bees donated by Shawn Shubel. This top-bar hive is designed to allow for the installation of a 6 5/8 inch frame of drawn comb which allows the queen to begin laying immediately. Upon inspection of the hive on May 14th , five full combs were drawn out, three of which were solid with brood. The division board was moved to the seventh top bar frame. Nine days later, on May 23rd , seven full combs 17' X 10" were drawn, four of which were solid with brood. ~by: Roger and Mary Sutherland

SEMBA LEADERS

President……..…….....Clay Ottoni
1st Vice President……..……Winn Harless
2nd Vice President……..……..……Richard Mendel
Secretary……. Randy/Sandy Graichen
Treasurer ……..…..Mary Sutherland
Past President…… …… ……Roger Sutherland
Web Master……Tom Lisk
Beginning Bee Class Leader…….Mike Siarkowski
SEMBA Hosts……. …….Donna & Howard Laws
Historian……....Ron Forfinski
SEMBA Representative to MBA……Rich Wieske
SEMBA Director……...…Fritz Sanders
SEMBA Director…… .Don Schram

A 'NEW-BEE' LEARNS BY DOING

A swarm emerges from a new beekeeper's hive and lands twenty feet up in a neighbor's tree. The new beekeeper wants his bees – the neighbor wants them gone!

Armed with a ladder, a pruning hook, a sheet to spread on the ground, and a swarm box, the new beekeeper and his bride head out to capture the bees. He climbs the ladder, hooks the branch and with a couple of good jerks, the bees spill down. Some land on his 'veil-less' head and shoulders – and on his beautiful 'bride' who is wearing a tank top.

After being stung, the two head for home to remove the stingers. He doesn't feel well, – the soles of his feet start to burn, his legs become weak, and he needs to sit down.

Sometime later, on the ride to the hospital, the new beekeeper finds himself looking into the faces of a fireman and a paramedic who say, "Welcome back." About this time, his young bride is wondering if his insurance is paid up – life insurance, that is, -- and he is thinking 'I hope the swarm will produce enough honey to help pay for this ride to the hospital.'

Lesson learned: When working with bees, always wear protective clothing and a bee veil to cover your face and head.

~By Bill Sirr

SEMBA OBSERVATION HIVE AVAILABLE

If you are making a presentation to a school group, garden club, or any other organization, an observation hive with live bees is available for your use. SEMBA also has other instructional aids available such as a teaching hive and posters illustrating types of bees, life cycle of honey bees, a beekeeper's year and the importance of pollination.

To reserve any of these items, contact Roger Sutherland, 734-668-8568 or rsuther@sembabees.org

PROCEDURE FOR ORDERING BEEKEEPING MAGAZINES

To order beekeeping magazines at bee club discounted prices, call the publishers directly and indicate to them the name of your local club. Current discounted prices for *Bee Culture* are: 1 Yr. - $21.00 and 2 Yr. - $38.00;
New rates for *American Bee Journal* are: 1 Yr. - $20.25; 2 Yr. – $38.25; and 3 Yr. - $54.00.
For *Bee Culture* call: 1-800-289-7668. For *American Bee Journal* call: 1-888-922-1293 or 1-217-847-3324.

CURRENT EMAIL ADDRESSES NEEDED

If you have made a change in your e-mail address, please contact SEMBA Treasurer/Membership chairperson **(**Mary Sutherland) at rsuther@sembabees.org

Bee Palooza marks National Pollinator Week

In celebration of National Pollinator Week, MSU is hosting Bee Palooza from 1 to 5 p.m. June 23 to give people of all ages a chance to have fun and learn about pollinators. Short educational sessions will take place in various parts of the MSU Horticulture Gardens starting every half hour from 1 to 3:30 p.m. These will cover topics including honeybees and pollination, building a bee hotel and gardening with native plants. In addition, there will be pollinator-themed face painting and a scavenger hunt for children.

This event is free and open to the public. In the event of rain, Bee Palooza will be cancelled.

More details are available on the group's Facebook page. http://www.facebook.com/events/435317199813125/
For more information, contact Julianna Tuell at tuelljul@msu.edu.

SEMBA Bargain Corner

Wanted:

~I'm looking for someone to move one or two honey bee hives that are living in a ground-level wall in an outbuilding in the Saline, MI area. The building is of no value (besides the bees!) and can be demolished in the process. I'm happy to pay for this to happen. Contact: Christopher Michalak, 734.646.1885.

For Sale:

~Honey bee colonies. These colonies started from swarms from my bee yard. They are at different stages of growth. Some are in a nuke box and others in a deep box. (It depends on the size of the swarm.) The price I list is the starting price for these colonies. I would sell these colonies with the price plus equal equipment exchange. If you have any questions please call Mazin at 313-999-3180.

~Ten 10 hive bodies, 10 medium supers with drawn comb, covers and other beekeeping items.
Contact: Ted Hysen, 734-878-6792.

~New 2012 bee swarms that I have collected. They are at different stages of growth, all in deep boxes. Would sell them in the deeps or for equal equipment exchange. If you have any question about these swarms, call Eddie Proctor, between 8 am to 6 pm, at 586-871-8185 cell or 586-752-0326 home.

~Bottling tanks, observation hive, bee videos and books. Contact: Ada Nowak at 734-422-0508.

Note: Ads in the Bargain Corner are free to SEMBA members. To place an ad, contact Roger Sutherland at rsuther@hotmail.com.

Southeastern Michigan
Beekeepers' Association
Organized April 1, 1934

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