



# SEMBA NEWS

Volume 27 Number 1

Newsletter of the Southeastern Michigan Beekeepers' Association  
Spring 2017

## **SEMBA SPRING MEETING:**

**FREE ADMISSION, LUNCH and DRAWING FOR DOOR PRIZES FOR ALL THOSE THAT PRE-REGISTER BY NOON, FRIDAY, MAY 19, 2017.** To pre-register, please email to [SEMBAConfReg@gmail.com](mailto:SEMBAConfReg@gmail.com) the NAME of each person planning on attending.

**When:** Saturday, May 20, 2017

**Where:** Seven Ponds Nature Center  
3854 Crawford Rd  
Dryden, MI 48428

**Time:** 10:30 a.m. - 3:30 p.m.

**Program:** Maximizing Honey Production and Preventing Swarming by Jamie Ostrowski (3rd generation beekeeper).

**Door prize drawing.**

2 Beekeepers with 100+ hives

425 hives alive in September 2016

70 hives alive in March 2017

16% Survival and 84% Loss

## **TOTALS:**

64 beekeepers surveyed in total

925 hives alive in September 2016

358 hives alive in March 2017

**2016-17: 39% Survival and 61% Loss**

**2015-16: 59% Survival and 41% Loss**

**2014-15: 47% Survival and 53% Loss**

**2013-14: 44% Survival and 56% Loss**

**2012-13: 46% Survival and 54% Loss**

## **BACTERIA CARRIED BY VARROA MITES MAY BE KEY TO UNLOCKING MYSTERY OF HONEY BEE DEATHS.**

Published January 3, 2017 by the University of Wisconsin-Stout.

A University of Wisconsin-Stout biology professor and his students may have made an important discovery in the effort to determine why honey bee hives are dying out during the winters in the Upper Midwest.

Biology Professor Jim Burritt and his students have published research [in PLOS One] about a new strain of the bacterium called *Serratia marcescens* strain sicaria. ... Ss1 for short.

“Our results indicate that Ss1 may contribute to the wintertime failure of honey bee colonies. We believe this is important because most beekeepers in our area lose over half of their hives each winter. ...” said Burritt.

The bacterium came to light as researchers looked for a different organism in blood drawn from sick bees in Dunn County. “It was clear we were looking at something different. As we did more testing on the organism, we began to realize we may be working with a new threat to honey bees. ...” Burritt said.

**SAVE THE DATE: OUR SUMMER PICNIC will be Sunday, July 16, 2017, at Tollgate.**

## **WINTER LOSSES REPORTED by SEMBA MEMBERS:**

Survey conducted March 18, 2017 (collected & correlated by the Sutherlands).

38 Beekeepers with 1 - 5 hives:

97 hives alive in September 2016

41 hives alive in March 2017

42% Survival and 58% Loss

7 Beekeepers with 6 - 10 hives:

58 hives alive in September 2016

33 hives alive in March 2017

57% Survival and 43% Loss

12 Beekeepers with 11 - 25 hives:

168 hives alive in September 2016

93 hives alive in March 2017

55% Survival and 45% Loss

5 Beekeepers with 26 - 100 hives

177 hives alive in September 2016

121 hives alive in March 2017

68% Survival and 32% Loss

Along with finding the new strain of bacterium, also groundbreaking within the study is confirmation that Varroa destructor mites carry the Ss1 bacterium, Burritt said. Previously, mites were known only for transmitting viruses to honey bees.

## **BACTERIAL IMBALANCES CAN MEAN BAD NEWS FOR HONEY BEES**

By Jan Suszkiw.

A team of U.S. Department of Agriculture (USDA) scientists and their collaborators have established a strong link between honey bee health and the effects of diet on bacteria that live in the guts of these important insect pollinators.

In a study published in the November issue of Molecular Ecology, the team fed caged honey bees one of four diets: fresh pollen, aged pollen, fresh supplements, and aged supplements. After seven days, the team euthanized and dissected the bees and used next-generation sequencing methods to identify the bacteria communities that had colonized the bees' digestive tract.

The team also compared the thorax (flight muscle) weight and size of each group's hypopharyngeal glands as measures of the diets' effects on bee growth and development. The glands enable nurse bees to produce "royal jelly," a substance that's fed to developing larvae, ensuring the hive's continued survival. The flight muscle weight represents the potential for work after the nurse bee transitions into the role of forager.

In general, bees given fresh pollen or fresh supplements fared better than bees given pollen or supplements that had first been aged for 21 days, reports Kirk Anderson, senior author and a microbial ecologist with USDA's Agricultural Research Service (ARS) in Tucson, Arizona. [ARS is USDA's principal in-house scientific research agency.]

Bees fed fresh diets suffered fewer deaths, made better use of energy for growth, and had lower levels of gut pathogens such as Nosema ceranae, according to Anderson and co-authors University of Arizona graduate student Patrick Maes, ARS lab technician Brendon Mott, and Randy Oliver of Scientificbeekeeping.com.

In the study, the nutritional value of pollen lasted longer than that of supplement. Bees consumed significantly more aged supplement than aged pollen, but this didn't translate into long-term benefits. For example, bees consuming aged supplement had plump nurse glands but suffered significant losses in

flight muscle, suggesting that nutrition diverted to feed developing larva came at a significant cost to the bees' own adult development. Poor development, in turn, can translate to early mortality or inefficient food collection when these nurse bees transition to the role of foragers.

Anderson says the effects of diet on gut bacteria populations (or "gut microbiome") are poorly understood but warrant study because of the implications for honey bee health and the insect's importance as a chief pollinator of 100-plus flowering crops. Put another way, consumers owe one in every three bites of food they eat to the work of honey bees and other pollinators.

Other key findings include -

- Bees fed fresh pollen or fresh supplements had more beneficial gut bacteria, like Snodgrassella alvi, whose presence was correlated with increased health, and decreases in gut pathogens Nosema and F. perrara bacteria.
- Five to eight types of gut bacteria were consistently found in bee gut.
- Dysbiosis was systemic, occurring throughout the honey bee gut.

Anderson says that with continued research, new supplement formulations or usage practices could be created to improve not only the health of honey bees but also the bacteria that live within them.

## **REMINDER OF THE NEW RULE CONCERNING ANTIBIOTICS**

You likely know by now that the new law requires beekeepers to obtain a prescription from your local veterinarian in order to obtain antibiotics (oxytetracycline, lincomycin and tylosin) for colony treatment. This has caused quite a stir among both beekeepers and veterinarians. Beekeepers are concerned about the ease of access to needed treatment and veterinarians are concerned with being able to provide proper services to a new group of clients.

Just in case you are not familiar with this new ruling here is a brief refresher. As of January 1, 2017, beekeepers are no longer able to purchase over-the-counter antibiotics for treatment of diseased colonies. In order to get this medication you will have to: (1) establish a veterinarian-patient-client relationship; (2) get a prescription or a Veterinary Feed Directive ("VFD") from said veterinarian; and (3) fill the prescription/VFD at a licensed pharmacy or a feed

mill. Keep in mind that the veterinarian might have to diagnose your animals in order for you to get a prescription/VFD.

For additional details about the changes implemented on January 1, 2017, visit the FDA website at: [www.fda.gov/SafeFeed](http://www.fda.gov/SafeFeed).

## **AGRICULTURE IS GOOD FOR HONEY BEES:**

**Research finds positive correlation between bee health & agriculture. Published on May 2, 2017 by the University of Tennessee, per the Institute of Agriculture.**

In a recent study, researchers with the University of Tennessee Institute of Agriculture found the overall health of honey bees improved in the presence of agricultural production, despite the increased exposure to agricultural pesticides.

While recent media reports have condemned a commonly used agricultural pesticide as detrimental to honey bee health, scientists with the University of Tennessee Institute of Agriculture have found that the overall health of honey bee hives actually improves in the presence of agricultural production.

The study, “Agricultural Landscape and Pesticide Effects on Honey Bee Biological Traits” which was published in a recent issue of the *Journal of Economic Entomology*, evaluated the impacts of row-crop agriculture, including the traditional use of pesticides, on honey bee health. Results indicated that hive health was positively correlated to the presence of agriculture. According to the study, colonies in a non-agricultural area struggled to find adequate food resources and produced fewer offspring.

“We’re not saying that pesticides are not a factor in honeybee health. There were a few events during the season where insecticide applications caused the death of some foraging bees,” says Mohamed Alburaki, lead author and post-doctoral fellow with the University of Tennessee Department of Entomology and Plant Pathology (EPP). “However, our study suggests that the benefits of better nutrition sources and nectar yields found in agricultural areas outweigh the risks of exposure to agricultural pesticides.”

Alburaki and fellow researchers established experimental apiaries in multiple locations in western Tennessee ranging from non-agricultural to intense agricultural production. Over the course of a year, colonies were monitored for performance and productivity by measuring colony weight, brood production and colony thermoregulation. Colony

thermoregulation, or the ability to maintain an optimal temperature within a hive, is an important factor in brood development and the health of the resulting adult bees.

According to the study, hives located in areas with high to moderate agricultural vegetation grew faster and larger than those in low or non-agricultural areas. Researchers suggest the greater population sizes enabled better colony thermoregulation in these hives, as well.

Meanwhile, bees located in a non-agricultural environment were challenged to find food. Although fewer pesticide contaminants were reported in these areas, the landscape did not provide sustainable forage. In fact, during the observations, two colonies in the non-agricultural areas collapsed due to starvation.

Disruptions and fluctuations in brood rearing were also more notable in a non-agricultural environment. Interestingly, brood production was highest in the location that exhibited a more evenly distributed mix of agricultural production, forests and urban activity.

“One possible explanation for this finding could be the elevated urban activity in this location,” says Alburaki. “Ornamental plantings around homes or businesses, or backyard gardens are examples of urban activity that increase the diversity of pollen in an area. Greater pollen diversity has been credited with enhancing colony development.”

Researchers also evaluated trapped pollen from each colony for pesticide residues. Low concentrations of fungicides, herbicides and insecticides were identified, but at levels well below the lethal dose for honey bees. Imidacloprid was the only neonicotinoid detected, also at sub-lethal levels.

Agricultural pesticides, particularly neonicotinoids, are considered by some to be a key factor in declining honeybee populations. The UTIA study found that higher exposure to pesticides in agricultural environments did not result in measurable impacts on colony productivity.

“We train agricultural producers on careful selection and conscientious application of pesticides to reduce bee exposure,” says Scott Stewart, Integrated Pest Management Specialist with UT Extension, “but it’s becoming ... clear[er] that the influences of varroa mite and food availability are more important factors in honey bee health than agricultural pesticides.”

## HOW BEES, ELEPHANTS AND FARMERS ARE KEEPING EACH OTHER SAFE IN A GENIUS WAY

By Laura Caseley and Submitted by Don Millington

Being a farmer is hard work — but being a farmer in places like Kenya, Botswana, and Sri Lanka has a unique challenge that other areas of the world don't: elephants!

Wild elephants, whose natural behavior is to roam, have been known to march right through fields, damaging and destroying crops.

When the human farmers try to intervene, things can turn ugly, and both human and elephant injuries and even deaths can occur.

Sadly, like too many [animals](#), elephants face many dangers at the hands of humans. It's a shame, because these creatures are intelligent, sensitive, and have complex emotional and social connections, forming strong bonds with one another, [and with different animals, too](#).

So a solution was needed that would both keep the farmers' fields safe, but make sure the elephants were in no way harmed.

This solution was not only brilliantly simple, but also had the added bonus of helping out another species in crisis: honey bees.

In areas where elephants are free-roaming, humans must learn to coexist with them. Sadly, elephants like to raid farms at night, eating and flattening crops and damaging the farmers' livelihoods.

This can lead to violent confrontations where both humans and elephants are hurt and killed.

Elephants usually raid fields at night, and toward them off, people have fired guns, thrown rocks, and launched firecrackers to scare them off.

Just like with humans, an injury or death in an elephant's family unit puts major emotional stress on the herd.

The devastation to fields is no small issue, either.

These small farmers rely on their crops to survive, and a damaged field can mean a serious loss of income and food.

There seemed to be no simple solution, until zoologist Dr. Lucy King noticed something: Elephants really don't like bees, and will avoid them at all costs.

If they hear buzzing, they'll leave an area immediately, signaling to others that bees are about.

This is because the bees' stings are especially painful to the elephants' trunks, and to avoid this pain, the elephants prefer to just stay away.

And thus, bee fences were born!

[Elephants and Bees Project](#)

"Bee-fencing," as it is known, is the use of hanging rows of beehives, each connected by a length of wire.

When a nosy elephant approaches, it will knock into the wire, setting the hives swinging and disturbing the bees.

And when the elephants hear that buzzing, they'll turn around and leave. The crops are safe, the humans are safe, and the elephants are safe. The bees are safe, too.

[Elephants and Bees Project](#)

Dr. King has been working with various conservation organizations and communities in Africa and Sri Lanka, building these bee-fences around local farms.

She hopes that this will be the first of many steps to create sustainable solutions where humans and animals can coexist peacefully.

[Elephants and Bees Project](#)

The project has also attracted the attention of some big names, who are chipping in to create more bee-fences.

[Elephants and Bees Project](#)

The bees also help pollinate fields and maintain the biodiversity needed to support an ecosystem, so the farmers get a helping hand, too

And as an added bonus, the farmers get to keep the honey and beeswax produced by their hives, which they can use or sell.

[Elephants and Bees Project](#)

This "elephant-friendly honey" is available in local shops near the areas where the farmers live and work.

So unless you're planning a visit to Nairobi, you won't be able to get any. But it's quite popular where it's sold!

**MANY THANKS TO MARY SUTHERLAND!!!**

During our 79th Annual Spring Conference, Mary Sutherland was given our heartfelt thanks and the

below gift, made by our own Sandy Graichen, as partial recognition for all of her years of dedicated service. Thank you, again, Mary!



Mary's gift hanging in her dining room window.

**SEMBA LEADERS:**

- President.....Clay E. Ottoni
- 1st Vice President.....Sened Livadic
- 2nd Vice President.....Theresa Morin
- Secretary.....Randy/Sandy Graichen
- Treasurer.....Wayne Titus III
- Past President.....Roger Sutherland
- Web Master.....Tom Lisk
- SEMBA Host.....Randy Graichen
- Historian.....Ron Forfinski
- SEMBA Rep. to MBA.....Clay E. Ottoni
- SEMBA Director.....Fritz Sanders
- SEMBA Director.....Don Schram
- SEMBA Newsletter editor.....Clay E. Ottoni

**PAYPAL INVOICE FOR SEMBA DUES.**

Invoices for memberships are due 3/31 for each year. The invoice is set for the same membership you had paid for in the prior year (e.g., if in 2016 you paid for an individual membership, then in 2017 you were billed the same way). You can pay electronically through the secure website, you can mail a check to **SEMBA, 218 S. Main St. Suite E, Plymouth, MI 48170** or you can pay at our Annual Spring Conference.



The wonderful couple (Roger and Mary Sutherland) who helped us for so many years; many thanks!

**BEEKEEPING MEETINGS IN SOUTHEASTERN MICHIGAN:**

**Ann Arbor Backyard Beekeepers**, Ann Arbor, MI

Meets the second Tuesday of the month. For information contact Michael Nardelli, (734) 751-3597 or [president@a2b2club.org](mailto:president@a2b2club.org).

**Biodynamic Beekeeping**, Ann Arbor, MI

For information contact Eileen Dickinson, (734) 717-4145 or [edickins@umich.edu](mailto:edickins@umich.edu).

**Mid-Michigan Beekeepers**

Meets the first Thursday of the month at 130 E. Main Street, Otisville, MI and the doors open at 6:30 p.m., meeting starts at 7:00 p.m.

**Monroe Bee Club**, Monroe, MI

For information contact Bill Bray, (734) 777-2365 or [braybill@hotmail.com](mailto:braybill@hotmail.com).

**Oakland Bee Club**, Bloomfield Hills, MI

Meets the first Tuesday of the month. For information contact Dennis Holly, (248) 515-0023 or [hollysbees@yahoo.com](mailto:hollysbees@yahoo.com).

**Pine River Bee Club**, Goodells, MI

Meets the third Tuesday of the month. For information contact Don McChristian, (586) 610-1867 or [pineriverbeekeeping@gmail.com](mailto:pineriverbeekeeping@gmail.com).

**Seven Ponds Bee Club**, Dryden, MI

Meets the fourth Tuesday of the month. For information contact Terry Toland, (248) 421-6601 or [lazy.t.apiaries@gmail.com](mailto:lazy.t.apiaries@gmail.com).

## SEMBA Bargain Corner

### For Sale:

~ Complete beekeeping equipment available. Contact, Keith Lazar, [248-361-1710](tel:248-361-1710) or [keithmlazar@hotmail.com](mailto:keithmlazar@hotmail.com). Save on shipping and pick up your equipment locally.

~ 5 frame nucs ready for pick-up in Michigan for \$150 as well as 10 frame deep hive body (with bees and queen) for just \$200. Call Carl at [586-484-1110](tel:586-484-1110). Please leave a message or text.

~ Queens and nuc are for sale. Earl and Carol Hoffman, [734-427-7649](tel:734-427-7649) or [essential\\_honey\\_bees@earthlink.net](mailto:essential_honey_bees@earthlink.net).

~ I (Mike Barna) tried my luck last season with honey bees and didn't do well. I am looking to sell my stuff. Please contact Mike Barna at [mike@medicprotraining.com](mailto:mike@medicprotraining.com).

~ Shawn Shubel has bees from Georgia. 3lb packages each for \$115.00 and 2lb packages each for \$102. Contact Mike Siarkowski cell # [517-304-9013](tel:517-304-9013), pickup in Howell.

### Wanted:

~ **Looking for beekeeper to keep hives in Milford area:** We have three acres in a somewhat-rural part of Milford with a bunch of fruit trees (sort of a hobby-orchard). If you are interested in using our property for some hives, please contact Daria Files at [files.daria@gmail.com](mailto:files.daria@gmail.com) or [734-223-9975](tel:734-223-9975).

~ **Looking for beekeeper to keep hives in Highland area:** We live in Highland Michigan on property zoned as agricultural and would love to have an apiary set up. I am interested in having someone come out and set up and maintain hives, collect the honey, and just give some to me because I have allergies to many flowers and plants. Our property is a little over 3 acres, with much of it left as a natural meadow. We maintain a sustenance organic garden, so we do not use chemicals on the soil. You may use Google Earth to check out the property (i.e., 1448 Camille Drive, Highland, MI 48357). Anyone interested, please call Teresa Cantarella at: [248-563-7644](tel:248-563-7644).

*Note: ads in the Bargain Corner are free to SEMBA members. To place an ad, contact Clay E. Ottoni at [ceottoni@gmail.com](mailto:ceottoni@gmail.com).*



Southeastern Michigan  
Beekeepers' Association  
Organized April 1, 1934  
Schoolcraft Beekeepers' Club

