

ILLINOIS QUEEN INITIATIVE

Highlights and Notes

2019 ANNUAL FALL MEETING

OCTOBER 19, 2019

Fall 2019



This year, approximately 40 participants attended the 2019 IQI annual fall meeting. We had three guest speakers. Two of the speakers Dr. Jeffery Harris and Dr. Brock Harpur both talked about the importance of having Varroa mite resistant beehives by using Varroa resistant queens. Varroa mite infestation is one of the major contributors of colony collapse. While both Drs. agreed that a Varroa resistant beehive is essential for the survival of the bee colony, they come at the problem from two totally different methods.

Dr Harris presenting SMR



Dr. Harris uses selective breeding for his method. He introduces Varroa mites to hives and measures how well each hive eliminates the mites. He does this without using chemicals. He will use the queens from the hives with the best results and then instrumentally inseminate the queen using single drone insemination. This technique produces a trait referred to as Suppressed Mite Reproduction (SMR). SMR is a heritable trait of the honeybee.

Treasurers Report

01/01/19	Beginning Balance	\$10,078.24
10/18/19	Income 1/1 to 10/18	\$10,328.06
10/18/19	Debits 1/1 to 10/18	\$ 3,363.69
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10/18/19	Bank Balance	\$14,759.10
10/18/19	Pay Pal Balance	<u>\$ 2,283.02</u>
10/18/19	Total Balance	\$17,042.12

Report does not include expenses and/or income received on 10/19/ and beyond.

Dr. Harpur's method of creating Varroa resistant beehives is through genetic markings (genotyping) in the queen's DNA. Dr. Harpur has determined that genetic mutations at certain positions in the DNA chain can determine if the queen has Varroa resistant characteristics. Dr. Harper provides a genotyping service for beekeepers and queen producers.

[Click this link for more information on how to get on Dr. Harper's email list.](#) Purdue's extension services also provide [genome sequencing for quantifying and monitoring your livestock.](#)



Dr. Harpur presents his new lab service for testing Varroa sensitive hygienic behavior using DNA testing.



**Adam G Dolezal,
Assistant Professor,
Entomology
U of I Urbana-Champaign**

Dr. Adam Dolezal’s talk was on the “Response of Queens and Egg Laying to Environmental Factors”. Some of the multifactorial stresses are pesticides, poor foraging resources (animal pastures, urbanization, and monoculture crops), and parasites and their associated pathogens. In short, lack of diversity causes a declining nutritional state for individual bees. Dr. Dolezal’s research shows that a highly diverse ecosystem (like a prairie ecosystem) produces a higher egg laying success in those beehives.

The honeybee research laboratory of Prof. Adam Dolezal at U of I is partnering with bee biologists at Penn State, Purdue, and other universities to roll out [a new tool](#) to help beekeepers get detailed information about the quality of their landscapes for bees. Data produced by the program, including Varroa infestation will help develop site and region-specific recommendations for land and bee management practices. [To join the effort, read the Description of the Project, and use this link to access the inspection materials.](#)

Election of IQI officials:

The following officials were elected for the upcoming year.

State Director
Scott Martin
soilcon@mchsi.com

Assistant State Director
Dr. Stu Jacobson
jsvforr@gmail.com

Northern IL. Director
Jeff Ludwig
ludwigjt@comcast.net

Chicago, IL. Director
Garry Grube
ggrube@rcn.com

Central, IL. Director
Tom Pankonen
pankonen@gmail.com

Southern IL. Director
JoAnn Rizkallah
jrizkallah@hotmail.com

Treasurer/Membership
Sally Johnson
jhnsnsal@aol.com

Secretary
Dave Meyer
Dave@meyerbees.com

Web master
Garry Grube
ggrube@rcn.com

Assistant State Director, Fred Gerberding and Secretary Ken Yamamoto terms end at the end of the year.

Regional Director Reports
Directors though out the State reported a cold and wet spring. Southern portions of the state didn’t get into production until May and June. It wasn’t until July that Northern Illinois producers got into full queen production. Honey production was lower in some cases because of the wet weather.