



General Membership Meeting Minutes

November 20, 2020 (ZOOM Meeting)

7:00 pm - Networking

1. Moment of silence for Linda Klink, CJBA 3rd VP
 - a. CJBA sent flowers to the Klink Family
 - b. Walt Wilson Sr. suffered a minor heart attack and is home recovering. CJBA sent a Delicious Orchards package to his home.
2. Minutes: Approval – No corrections noted. Curtis Crowell moved to approve the minutes and Bill Woodward seconded.
3. Treasurer's Report: CJBA has approximately \$11,320.00 in the account. Due to the virus, there has been no activity/costs. The Bee Day Family Picnic, Thompson Park Day, Oak Tree Festival and Monmouth County Fair were all cancelled.
4. Update on Short Bee Course: CJBA hosted a short Bee course last fall with Jeff Burd. At this time, the state is formalizing the Bee courses. Due to tax implications and regulations, participants will register through Wild Apricot and attendance will be recorded. This data is required by the IRS. Plans include a hybrid course taken online from an approved list of colleges in local surrounding states. The participant will receive a certificate of completion as a prerequisite and arrange hands on time with Jeff Burd. Possible courses from Delaware and Penn State will be considered. The general duration of the online bee course is 9-12 hours. The next NJBA Newsletter should have more information.
5. Mentoring: In order to sustain a mentoring program, a volunteer is needed to take responsibility.
6. Update on State Meeting: Approximately 138 members participated. This ZOOM Meeting was based on feedback from the survey regarding plans for the format of the State Meeting. The next State Meeting will most likely be online as well. The Honey Show will have a different format this year. It will be held on January 26-28th with judging taking place on January 27th.

The Honey Show will take place in a firehouse in Parsippany. Tim Schuler and Meghan McConnell will assist.

7. EBoard Election Results: The elected Central Jersey Beekeepers Association's Officers for 2021 are as follows:
- President: Geff Vitale (2 year term)
 - 1st VP: Virginia Pauls (2 year term) - Virginia was appointed after the meeting.) Responsible for Welcome Packets and Membership
 - 2nd VP: To be appointed (2 year term) Responsible for education and outreach
 - 3rd VP: To be appointed (2 year term) Facilities Coordinator
 - Treasurer: Pat Evans (No term limit)
 - Secretary: Angela Juffey (No term limit)
- Fair Chair: Geff Vitale
 - Facebook Coordinator: Danielle Garske
 - Newsletter Editor: Angelo Trapani

Note: Executive Board tasks can be shared. If you are interested in Executive Board positions, please reach out to Geff Vitale. (geff.vitale@gmail.com)

Pierre Van Mater made a motion to accept the ballot and Stan Slabinski seconded the motion.

8. Presentation: **“Breakthroughs in Honeybee Health: Continuous-Release Mist Diffusion of Thymol-Based Essential Oils”** by Katie Culbert, student at Toms River North

After the election of our officers, we were treated to an outstanding research project by Katie Culbert, a freshman at Toms River High School North. Katie presented **“Breakthroughs in HoneyBee Health: Continuous-Release Mist Diffusion of Thymol-Based Essential Oils”**. In October, Katie was awarded First Place in the 2020 AEOP (Army Educational Outreach Program) National Science Challenge for her research proposal. Katie is keenly aware of the dwindling

population of honeybees due to varroa mites and is seeking a safer, nontoxic and inexpensive alternative treatment. With the help of CJBA President Geff Vitale, local bee keeper Clifford Moore, commercial bee keeper Randy Oliver, Cameron Jack, PhD (University of Florida), Ron Hutchinson, PhD & Rob McKeage (Stockton University) and Professor Michael Haberland (Rutgers University), Katie was able to acquire the resources needed to begin her research this past summer. Katie collected mites and larvae from Stockton and Rutgers. Using gel caps to simulate cells, the larvae and mites were incubated with Broodminders and treated with food-grade essential oils dispensed by a battery-operated mist diffuser. The food-grade essential oils tested were Thyme, Oregano, Spearmint, Rosemary and Vegetable Glycerin (control). Thymol is the only compound of essential oils widely used in beekeeping to combat varroa mites. Most beekeepers use commercially available products with thymol such as Apiguard and ApiLifeVar. By investigating thymol-based essential oils, it may be possible to find an environmentally safe, natural, and cost-effective method for treating varroa mites.

When her research was completed, Katie concluded:

1. The tested essential oils have a high lethality to Varroa mites.
2. Increasing the time of exposure led to an increase of the toxicity of the essential oils against Varroa.
3. After 48 hours, all Varroa exposed to thyme and oregano had fallen.
4. After 120 hours, all mites exposed to rosemary had succumbed.
5. After 144 hours, all mites exposed to spearmint had fallen.
6. After 240 hours, all mites in the control (vegetable glycerin) had succumbed.
7. Increasing the hours of exposure did not lead to an increase in honeybee mortality.
8. The variability of climatic conditions such as temperature and humidity affect the rate of evaporation and exposure of mites to essential oils. In addition, great variability exists in studies due to varying seasons and localities.
9. Battery-operated, continuous-release mist diffusers can be utilized as a delivery system to release essential oils for the control of mites.
10. Essential oils from the thymol family are effective against Varroa without causing harm to honeybees.

Katie's plans for further examination of essential oils include:

- Residual effects on the taste of honey produced
- Rotation of multiple essential oils as part of a natural miticide plan
- Detailed cost-analysis comparison with commercial thymol products

In addition to maintaining her grades, Katie is a competitive swimmer. She plans to begin a Beekeeping Club at her high school with a focus on educating young children regarding the importance of our pollinators. After high school Katie plans to attend college and pursue studies in science and engineering.

Katie's presentation was so well received by our members! CJBA member Kate Langley offered a hive to Katie for her continuous study and member Peter Van Mater offered a location for the hive. We all welcome Katie as our newest Junior member and wish her success in her future endeavors!

The Executive Board of the Central Jersey Beekeepers Association wish all of our members a happy, healthy 2021!

Meeting adjourned at 8:33 PM. ZOOM General Membership Meetings will continue until further notice.

Respectfully submitted,

Angela Juffey

CJBA Secretary