

SOARING CAPITAL BEEKEEPERS ASSOCIATION

MISSION STATEMENT: "To educate, promote and teach beekeeping and have fun."

THURSDAY, FEBRUARY 15, 2018 MEETING HELD AT

7:00PM AT MARANANTHA BIBLE CHURCH

There were about 30 attendees at the meeting – mostly members with maybe a few visitors and guests. A sign-in sheet was passed around.

With the fantastic recent warm weather, many beekeepers have had a chance to check on their hives. While some members have experienced losses this winter, it seems that for the many, their losses have been on the lighter side. The bees have had ample opportunity for cleansing flights with the occasional breaks of good weather. Wondering if we will have the first pollen of the year coming in again in February as was the case for some of us last year. Hopefully, the cold weather will return until at least towards the end of March, since early warming can trigger the plants to start growing/blooming, only to be killed by seasonal /normal freezing temperatures later.

Lenny announced the upcoming Geneva Bee Conference – March 24th in Canandaigua. Information is available online. There will be several guest speakers, including Larry Conners, Paul Cappy and Aaron Fisher. This conference is close enough to do as a day trip for many of us. This relatively local conference, put on by two neighboring upstate NY bee clubs, can attract some "big" names in beekeeping, and provide an opportunity to listen to some of the speakers without traveling a great distance, and also usually for a reasonable cost.

There were two pieces of locally made equipment that were demonstrated, a frame holder for \$15.00. Also a tool that one can use to help clean off the dead bees and debris from the bottom board - \$5.00 each I believe, except for the Secretary who offered to buy one for \$10.00.

Free bee calendars were passed out.

The meeting had two main program parts. One was reviewing a handout on and discussing varroa mites. The second presentation was on mead making.

The three page color hand-out on varroa mites is packed with information and formed the basis for the varroa discussion/presentation. As many beekeepers who have kept bees for more than a year or two usually know, varroa can be a huge challenge to successfully keeping bees today. Basic biology was covered – only female varroa are found on adult bees. Each female "foundress mite" goes into a cell shortly before it is capped to reproduce. While in the capped brood cell, she will first lay a male egg, followed by female eggs. Typically the male will mate with his sisters, unless there is more than one varroa mite in the cell reproducing. The "foundress mite" will then emerge with usually one daughter from a worker cell (occasionally two daughters will develop enough to survive) when the worker bee emerges about twelve days after the cell was capped. If the "foundress mite" enters a drone cell instead, she typically emerges with two, and potentially three daughters, as there is a longer development time for drones in the capped cell stage (about fifteen days capped). The varroa

mites preferentially enter drone cells to reproduce – and that is one of the main reasons to check drone comb for mite presence. If one sees a dark rusty brown mite on a purple eyed pupa, it is typically a mother mite – her daughters haven't developed to that color stage by that point. It is often easier to see the dark colored adult mite against a still white colored pupa – before it darkens up closer to emerging from the cell. Also remember that as much as 80% of the mites will not be on bees crawling around in the hive, but rather in cells with capped brood - busy making more varroa.

The handout covered cultural practices – basically non-chemical treatments that can help, and with diligent and informed application, can at least assist in allowing colonies to survive. Most of us however use some of the control options listed on the second page. Know how they work, when and how to apply, and whether application can happen with honey supers on. Some of the treatments are only, or significantly more effective on mites that are on the adult bees (phoretic mites) and not effective on any mites under brood cell wax cappings – oxalic acid comes to mind. To be effective oxalic acid has a narrow effective timing of a no capped brood period – which can happen about 1 week after hiving a swarm or package, as well as after making up a colony with a queen cell, before the bees start capping the first brood that the new queen produces. The third page shows a calendar that lays out the typical yearly cycle and different treatment options based upon seasonal factors.

Lenny passed around samples of drone and worker comb. Learn to identify the differences. He also mentioned the viruses that varroa transmits, including a couple of the worst ones – DWV (Deformed Wing Virus) and ABPV (Acute Bee Paralysis Virus). Pictures were passed around of both. It is actually the viruses and other microbes that varroa transmits that cause the most problems for the bees.

Varroa sampling techniques were named and we will be looking to practice them as well as management techniques when we work with bees at our meetings in the apiary, hopefully beginning in May. The alcohol wash is cheap, simple and effective in determining how many varroa are in the sample. One can then make an informed judgment on what action to take. Without sampling, how can one know if one needs to treat, or how effective the treatments one uses were?

The second main presentation on Mead Making was spearheaded by Ed and Mark. What better way to use some honey, that to dilute it and feed it to some micro-organisms to turn into alcohol? There was a complete set-up and the initial stages of getting the fermentation going were demonstrated. There are similarities in making beer and wine to making mead - often using similar equipment. Equipment can be purchased online, or there is a store, called Sunset Hydroponics – in the TOPs plaza in Big Flats – that carries most items. Fulkerson's Winery on Seneca Lake was also mentioned as a potential relatively local equipment source.

Mead has been made for thousands of years, so you would be engaging in an activity which likely even pre-dates beekeeping. As with the keeping of bees, there are different ways to make mead, and many different things to potentially combine with the honey to produce different fermented beverages. As demonstrated, the initial step was to dilute the honey with warm water to achieve a desired starting sugar level – the honey is too sweet for the yeast to work on unless it is diluted. The amount of water to add is determined by what one desires in the final product. The amount of “sugar” from the honey is measured with a hydrometer (usually in degrees Brix) until it reaches the desired level. The sweeter the starting solution, the more alcohol the yeasts can potentially produce, and/or

the sweeter the end product will be. About 21 degrees Brix will produce a “dry” (no residual sugar) mead, whereas an initial Brix of about 26 should produce a target residual sugar of about 5.1%. One also needs to calculate how big of a batch one wants to make – in part determined by the containers one intends to use. The batch was made up without heating the honey, although the water was heated up to around 100 degrees Fahrenheit – the yeast get established/grow better at an initial warmer temperature. Dried packaged yeast (there are many options available, but a good standard choice) was rehydrated and started back on the road to activity before adding them to the main batch. Ed also decided to add some brewed herbal tea for flavoring. A yeast nutrient was added, since honey is not very nutrient rich for yeast – even yeast don’t do well on a carbohydrate only diet. The initial stages of the fermentation, which typically takes 3 weeks to a month, often happens in a separate container, before the mostly fermented mead is transferred to a glass carboy (usually 5 gallon container) with an air-lock. The air-lock helps keep out oxygen and undesirable microbes. Although oxygen is important to the initial growth of the yeast, they can grow anaerobically – without oxygen after getting established. There were many details given in the presentation.

Several more weeks are needed for the fermentation to be completed. 60 to 70 degrees Fahrenheit is considered a good temperature for the fermentation – warm enough to keep the yeast happy and growing, but cool enough to allow for good flavor development. The clarifying mead (dead yeast sinking to the bottom called “lees”) is siphoned to a clean container, leaving behind the lees – this is called “racking”. In the end, one can expect about (25) 750ml bottles from a 5 gallon batch. After the mead is bottled, it will often improve for a year, or potentially longer – if you can wait!

A handout was available on making mead. An additional variation was presented/talked about which involved using raspberries, first pasteurizing at about 150 degrees for about one hour after mixing with a little water, then placing them into a muslin bag and soaking in the mead. There are so many options and we are fortunate to have some mead makers in the club who are very knowledgeable and willing to share their knowledge on this fascinating process one can do with honey – not to mention the tasty beverages that can result.

A short wrap-up on some of the chemical varroa treatments as well as talking about Nosema and mentioning some bee disease reference books took place before the formal meeting ended. As usual, post-meeting discussions (mainly bee and mead related) followed.

Thank you again to our hosts at MARANANTHA BIBLE CHURCH.

UPCOMING EVENTS:

Next Monthly Meeting: Thursday March 15, 2016, 7:00PM. MARANANTHA BIBLE CHURCH.

Respectfully submitted,

Peter Meybaum,

Secretary