nnjbees.org

November 2016

NORTHEAST NEW JERSEY BEEKEEPERS ASSOCIATION OF NEW JERSEY

A division of New Jersey Beekeepers Association

President	Frank Mortimer	201-417-7309	3rd V. Pres.	Karl Schoenknecht	201-891-0947
V. President	Rich Schluger	201-693-6949	Secretary	Jaimie Winters	551-486-7479
2nd V. Pres.	John Gaut – **Mentor Coordinator**	201-961-2330	Treasurer	Bob Jenkins	201-218-6537

Meeting on: **Friday, November 18th at 7:30 PM**, Location: **Ramapo College of NJ, 505 Ramapo Valley Rd., Mahwah, NJ 07430**

Bee Enthusiasts & Bee Curious always welcome! *Weather permitting.*

Please join us on **Friday, November 18th** when we present our special guest, Dr. Tom Seeley. Dr. Seeley is the Horace White Professor in Biology at Cornell University. He is based in the Department of Neurobiology and Behavior, where he teaches courses on animal behavior and does research on the behavior and social life of honey bees. His work is summarized in three books: Honeybee Ecology (1985), The Wisdom of the Hive (1995), and Honeybee Democracy (2010). See you all there!

Dr. Seeley will speak about The Colony as a Honey Factory. We will explore how a colony of honey bees operates as a factory that produces honey efficiently despite tremendous day-to- day swings in the supply of nectar, the raw material for making honey. An important feature of the organization of the honey production process is a division of labor between the nectar foragers, elderly workers who toil outside the hive collecting the nectar, and the nectar receivers, middle-age workers who toil inside the hive converting the nectar into honey. We will see how the bees can boost their colony's rate of nectar collecting during a honey flow, using the waggle dance and the shaking signal. And we will see how the bees can also boost their colony's rate of nectar processing—to keep the rates of nectar collecting and nectar processing in balance—by means of the tremble dance and stop signal. Dr. Seeley will draw heavily on material reported his book The Wisdom of the Hive, and he will show videos of bees producing all the signals mentioned above: waggle dance, shaking signal, tremble dance, and stop signal.

Two of Dr. Seeley's books will be available for sale at the meeting: The Honey Bee Democracy and his new book Following the Wild Bees. After the presentation Dr. Seeley will be glad to autograph these and his other books.

We will be meeting on the Ramapo College Campus in the H-Wing Auditorium at 7:30.

Ramapo College is located at 505 Ramapo Valley Road, Mahwah, NJ

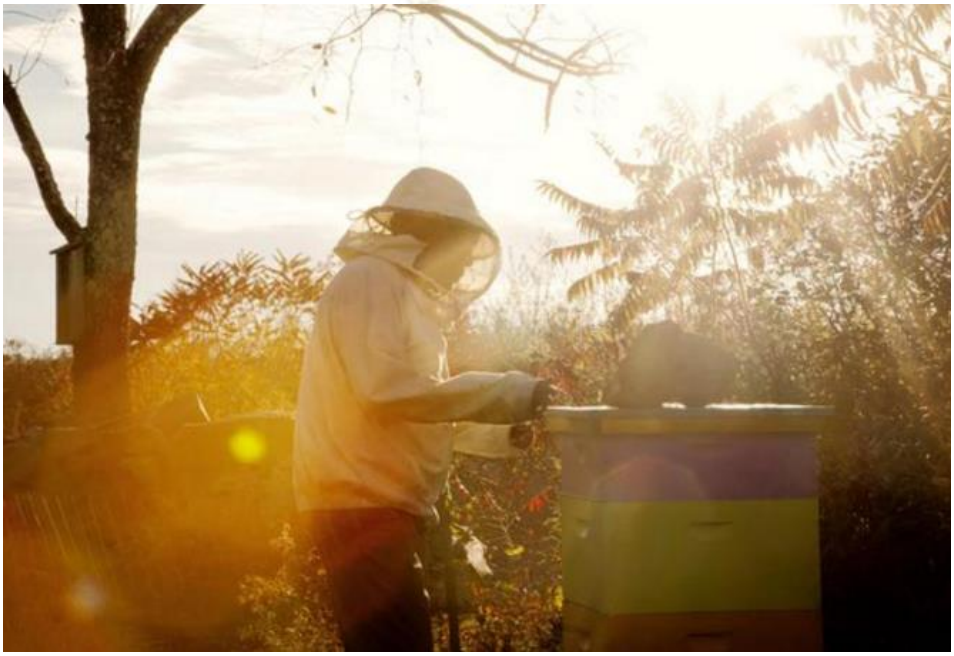
A suggested donation of $5.00 will help offset some of the costs.

- **Please take note that we will be meeting in a new space at Ramapo College. Not in our usual spot. See the directions later in this newsletter.**

Yearly Dues are payable now!

Your $25 yearly dues goes to fund all of our activities, our post meeting refreshments, club supplies and all other necessities required to bring the best possible programs, headline speakers, classes, mentoring and to introduce new beekeepers to the art and craft of the hobby we all love so much. See Bob Jenkins to make your timely dues payment, and from all the officers,

"Thank you for your continued support."



Message from the President:

Happy November Northeast NJ Beekeepers!

I am very excited that this month's speaker is the one and only, Tom Seeley. Dr. Seeley has done a lot of important research on the honeybee, and his book, Honeybee Democracy, is known well-beyond the beekeeping crowd. As the president of our club, my main mission has always been education, both for members and the general public. Bringing in someone as well-known and in as high demand as Tom Seeley is proof that our club is the best of the best.

What many members might not realize is how much "behind the scenes" work goes into making our club so great. Even as you read this newsletter, think about the time it took for all the people to write the articles, put it together, and email it out to everyone. It's a lot of work for a bunch of people to make sure the content is meaningful and is presented in a professional format. All of us who work to bring you top-notch meeting-after-meeting do so because of our passion for bees and for our club. And just like in a hive, every bee has to contribute in order for the hive to survive, so now I need to ask you for your help.

Since it's November, the month of Thanksgiving, I would ask every member that is thankful for what our club provides, bee it the mentoring program, the monthly meetings, or our Facebook page, so please make it a point to give back to the club.

One of the most significant ways to help our club is to contribute financially. In order for our club to bring in speakers like Tom Seeley, to put on the Honey Cup, to having a yearly holiday party, takes money, and with your help, we can continue to have a club that provides as much as it does.

This year, we created t-shirts as a club fundraiser, and I would ask that you consider buying a few, since all the proceeds go to the club. (With the holidays approaching, they will make great gifts!) Also, we always have a donation jar at the meetings, and giving just a few dollars goes a long way.

Please ask yourself if you benefited in any way from the club this past year, and if the answer is yes, then please support our club however you can.

We will have copies of Honeybee Democracy and Tom Seeley's newest book, Following the Wild Bees available at Friday's meeting. Dr. Seeley will be signing copies of books purchased at the meeting, and I hope everyone will take advantage of this great opportunity.

Friday's meeting is going to be great, and next month we will have our annual holiday party. Then, it's on to 2017, and I can assure you that we already have lots of great things planned!

Thank you for your support and for all that you do to make the Northeast NJ Beekeepers, the measure of what a great club can bee.

Frank Mortimer
President, Northeast NJ Beekeepers

Beekeeping in November

John A. Gaut

Fall has arrived and it feels like winter is right around the corner! We even had some snow pellets one morning. I saw small loads of pollen coming into the hives a few times. I'm amazed they can find any at all. I do see some bees bringing in what looks like broken pieces of corn; they are next to a corn field. Last year I had several hives with bird seed inside. I was not sure how it was getting in the hive until we watched some bees at a bird feeder. It looked like the bees were carrying the small round grains of sorghum between their hind legs! I know, sounds crazy. I started open feeding a pollen substitute in early November. On warm days the bees gather the pollen substitute and store it in the hive. (Randy Oliver found the bees store pollen substitute when feed outside the hive. Pollen patties in the hive are only consumed, not stored.) Maybe they will leave the corn and bird feeders alone if they have a little pollen substitute for a month!

At this point, the colonies are making the final preparations for the winter. Brood rearing has ramped down and the honey and pollen have been stored for their winter survival and the spring buildup. Each colony should have at least 60 pounds of honey and several frames of pollen. (If a colony does not have enough honey and pollen, the beekeeper should plan to supplement carbohydrates and/or protein in the late winter so the colony can build for the spring.) Most importantly the mite levels should be low (less than 1% is ideal). Any remaining mite treatments should be completed and the treatment removed.

If I depend on my memory, I risk forgetting or neglecting some tasks. So I use checklists. Below is the checklist I developed insuring the colonies are ready for winter. Hopefully you can use it (modify it if you want).

Checklist for Winter Survival

- Remove Feeders and any extra supers
- Adequate Honey Stores
- Good pollen reserves
- Large population of young healthy bees
- Low Mite levels
- Low Nosema levels
- Upper entrance
- Reduced bottom entrance with mouse guard
- Minimize Air Infiltration
- Close Bottom Board on Screened Bottoms
- Insulate the top of the hive between the inner cover and the outer cover
- Insulate the hive sides

I insulate both the top and sides of my hives. The top insulation (between the inner cover and top cover) helps retain heat from the cluster and prevents condensation on the underside of the inner cover. The warm moist air escapes out the upper entrance instead of condensing on the inner cover. The side insulation also helps retain heat and allows the cluster and brood nest to expand more in the early spring. I suggest at least insulating the top if the hive. Many beekeepers see improved survivability with insulation on top and sides. The November issue of Bee Culture has an excellent article about Winter Management, written by a beekeeper from Connecticut.

Now is a great time to learn more about honey bees and beekeeping. Dr. Tom Seeley will be at our November 18th meeting. He will be presenting how the colony operates as a "honey factory." We will have two of his recent books for sale there too; The Honeybee Democracy and Following the Wild Bees. The Honeybee Democracy is an excellent book and has practical applications for humans working together too! Following the Wild Bees his latest book and describes the process for finding feral bees; something done years ago but mostly forgotten today. Tom will sign these books and others you may already have.

Our November 18th meeting is a very special meeting with Tom Seeley. We will be meeting in a larger auditorium this one time; the H-Wing Auditorium is a short walk from our usual meeting location. Plan to purchase a book or two and have Tom sign them. I hope to see you there!

Comb Building

John A. Gaut

Throughout the beekeeping season, many beekeepers want to have the colony build new comb. The new colony needs to build comb to expand the brood nest and to store pollen and honey. An established colony may need to build comb to store surplus honey for extraction. Sometimes the colony builds new comb very quickly. Other times the colony does not build any comb. What is needed for the colony to build comb?

Tom Seeley in his book "The Wisdom of the Hive" says there are two conditions must be met for the bees to begin building comb: 1) the colony has a high volume of nectar coming into the hive, and 2) the current storage combs are nearly full. Comb building is a very energy intense activity performed by middle aged bees, 10 to 18 days old. At least 6 grams of honey are required to make 1 gram of bees wax. Pollen is also consumed to provide additional nutrition needed to excrete wax. Drawn comb is very valuable; beekeepers treat drawn comb "like gold." The bees have to invest a lot of honey to make comb; there needs to be a clear need for the additional comb!

Randy Oliver recently tested if a 1:1 or 2:1 sugar solution was better for building comb. He did not find a significant difference between the colonies fed 1:1 or 2:1 sugar concentrates. The colonies feed 1:1 consumed twice as much syrup; effectively the same amount of carbohydrate. Feeding 1:1 either requires twice as many feedings or feeders twice as big for the same comb building results as 2:1. This reflects my own experience. I typically feed a heavy syrup solution. The only exception is in early Spring when the colony could need the additional water for brood rearing and the water foragers have limited opportunities to collect water. (I plan to test different concentrations of syrup this Spring.)

During the late fall, the colony is not as inclined to build as much comb as the spring. The colony is ramping down brood rearing and will fill in the empty brood cells with nectar to process into honey. This can be an issue; some colonies will completely pack the brood nest leaving no open cells in the comb. The colony does need some open cells in the comb to cluster for the winter and will need some open cells to begin brood rearing in January.

I use nucs for mating of queens and have several that were built into 2 deep nucs (5 frames over 5 frames). I did not have enough drawn comb for some of the nucs so was encouraging the colonies to draw out some more frames of foundation. This has gone better for some colonies than others. Temperature is much more of a factor this time of year. The bees drawing comb cluster and festoon together to build the comb. The temperature in the comb building area is elevated to enable the bees to process the wax. During the cool days and nights, the temperatures cannot be maintained.

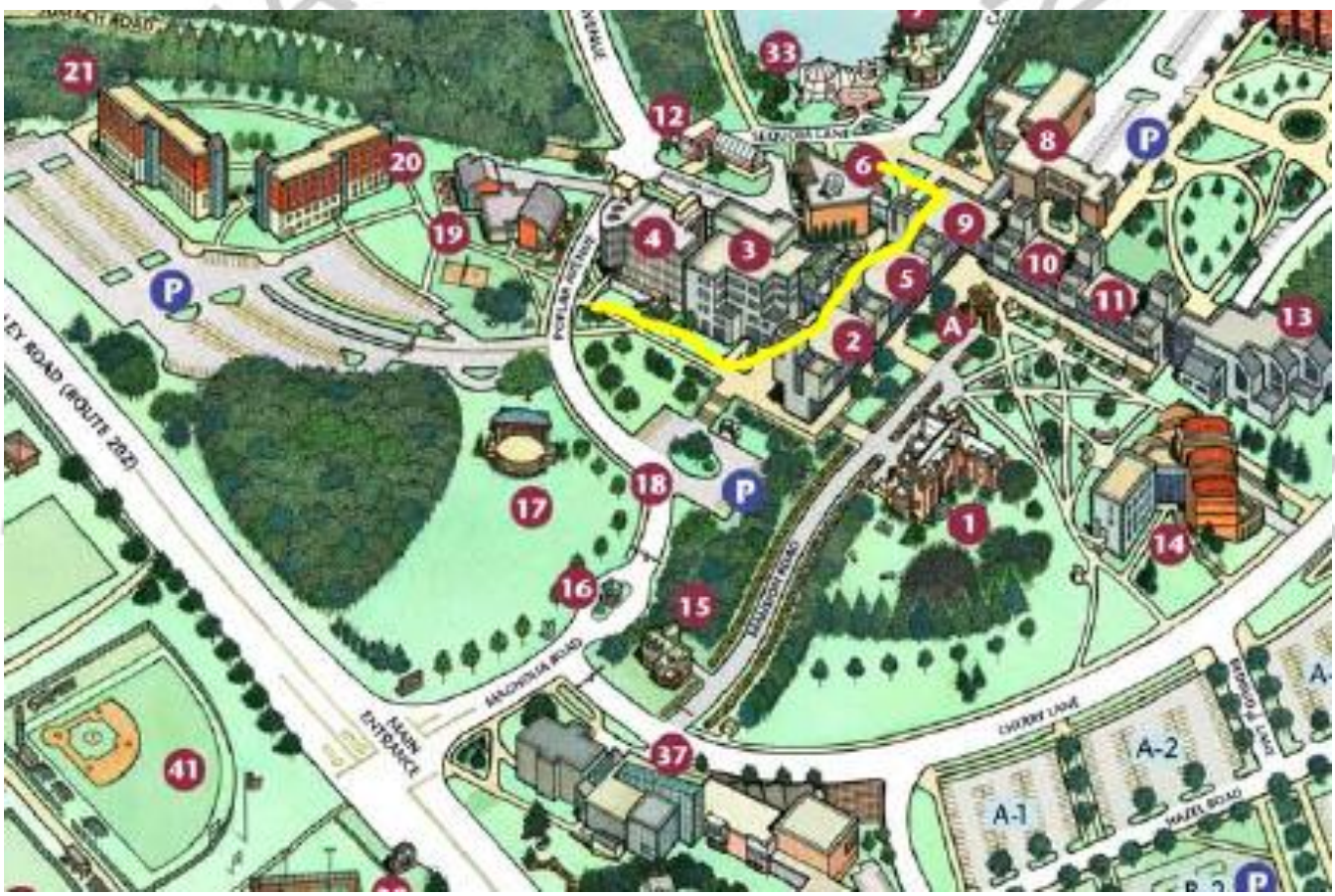
Swarming is a special situation for comb building. Swarms are primed to build comb. They have to be primed! Comb building is a high priority for the swarm once it finds a home. The bees that normally build comb in the parent colony actually stop a few days before the swarm, saving the resources (the honey and their energy) for the new hive. Once the new colony starts building comb, they continue even though there may be enough space for brood and storage. As long as there is

nectar coming in, they will continue to build comb. I caught about a dozen swarms this year and each one drew out 15 or more deep frames of comb very quickly. Amazing!

If you would like to learn more about comb building, Chapter 7 in Tom Seeley's book "The Wisdom of the Hive" explains his and other's research related to the "Regulation of Comb Construction."

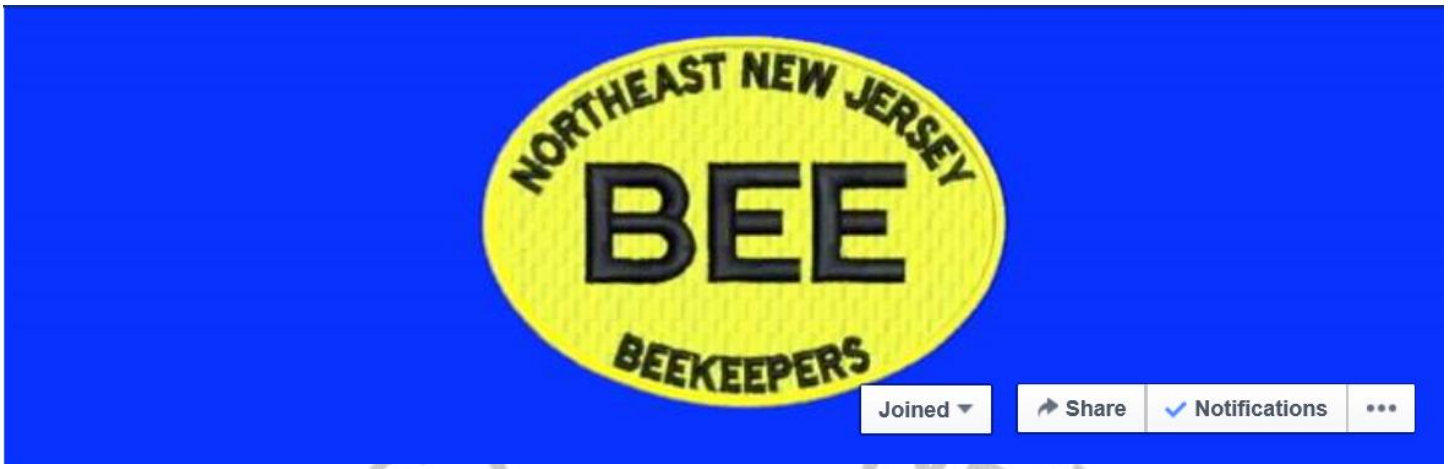
Directions to the meeting place for the November Meeting

Come into the same entrance by car and park in the same parking lot that you usually do. Bldg #4 is where we usually meet. For the November meeting we will be meeting in **Bldg #6**.



H Wing Auditorium

Follow yellow trail by foot to Bldg #6.



Find us on Facebook

1,598 Strong!!!

We quickly blew through the 1,500 member milestone and are, as of this writing 1,598 members strong, and growing on our Facebook page! Be sure check it out. See the great pics and stories posted by the Facebook fans we have at our page.

Remember: http://www.nnjbees.org ***is your website! Check that site for everything Northeast New Jersey Beekeeping!***

❖ Volunteers ❖	
Celia Miller	Refreshments – Cakes, cookies, brownies, tea, etc.
Jennifer Phillips	Refreshments – Cakes, cookies and other treats
Billy Neumann	Club photographer
Hugh Knowlton	Workshop/Event coordinator and presenter
Mike Miller	Club apparel
Emma Stein	Resident artist
Bob Slanzi	Meadmaster

Next Month

The Northeast NJ Beekeepers is proud to present our Annual Holiday Party.
More details to follow.