



nnjbees.org

December 2017



NORTHEAST NEW JERSEY BEEKEEPERS ASSOCIATION OF NEW JERSEY

A division of New Jersey Beekeepers Association

President	Frank Mortimer	201-417-7309	3 rd V. Pres.	John Matarese	201-481-5426
V. President	John Gaut – Mentor Coordinator	201-961-2330	Secretary	Karl Schoenknecht	201-891-0947
2 nd V. Pres.	Jaimie Winters	551-486-7479	Treasurer	Bob Jenkins	201-218-6537

Meeting on: **Friday, December 15th at 7:30 PM,**

Location: **Ramapo College of NJ, 505 Ramapo Valley Rd., Mahwah, NJ 07430**

Bee Enthusiasts & Bee Curious Always Welcome! *Look for the Bee-u-tiful Yellow Signs*

Please join us on **Friday, December 15th**
in the **Pavilion** at Ramapo College
for our **Annual Holiday Party!**

See You There!



Road Closure Notice: Rt. 202 from Oakland will be closed for construction. **YOU MUST APPROACH RAMAPO COLLEGE FROM RT. 17.** For more information and detour map/details, please visit: <https://www.ramapo.edu/publicsafety/road-closure-route-202-culvert-replacement-project/>





Message from the President:

Happy Holidays Northeast NJ Beekeepers!

The end of the calendar year is here, and that can only mean two things: our bees are clustered in their hives maintaining a toasty temperature of 92 degrees. And, **It's time for our annual holiday party!**

I am happy to report that this year's party will again be held in **The Pavilion**, which besides being a big, beautiful space, it is also the closest building to any parking lot! (**The Pavilion** is behind the volleyball nets & across the street from where we hold our monthly meetings.)

Once again, this year's party will have plenty of food, and lots of gifts and prizes for all. It makes me happy that we are able to have such a nice party for our members, as it is great way to celebrate our friendships, our dedication to *Apis Mellifera*, and another year of beeing the best bee club the insect world has ever seen.

In addition to lots of great food and treats, we will also have beekeeping items for sale, club fundraisers, and door prizes. So, please remember to bring enough cash so you can get everything you'd like to put under your Beekeeper's tree, minus the gift-wrap.

I do hope you will make it to this year's party. It is always nice to spend an evening to just talk, eat, and enjoy one another's company. As always, please know that **your family is invited**, so please bring your spouse/partner/significant other/child/parent/best buddy along.

I look forward to seeing everyone Friday night!

Happy Holidays to one & all!

Frank Mortimer
President, Northeast NJ Beekeepers





Time to party!

The Northeast NJ Beekeepers will hold its annual
Holiday Party THIS FRIDAY, Dec. 15, 7:30 p.m.

We will once again offer up lots of delicious hot appetizers, drinks and yummy deserts.

Besides good company, the highlight of the evening will be our door prizes & gift baskets.

Some of the items include:

- Handmade quiet bee tool box
- Certificate for a Stiles Honey nuc
- Extractor rental
- Certificate for 2 queens
- Original Bee Oil Painting by Janet Tava
- Handmade beehive by Richard Stellingwerf
- Hands-on make your own Mead with a pro
- All things honey and beeswax basket
- Bee themed kitchen basket
- Protect our pollinators special edition postal stamps
- Bag of bee books
- Fence Charger

Bring your cash for a chance to get one of these exciting gifts!

The party is our gift to our members, but funds from the gift baskets pay for lectures, events and programs throughout the year making us the best club in NJ!

Update on NJ Dept. of Ag's proposed regulations

As you are well aware of, the New Jersey Department of Agriculture has moved forward with their proposed beekeeping regulations that if they go into effect will prohibit beekeeping throughout most of the state.

Stopping these regulations will be a **multi-step process**, and it will take all of us to make it happen.

1) Janet Katz has asked that we get all of our comments into her, so she and our lawyer can assemble our club's official and collective response to the regulations.

TO DO: Please send your comments to Janet via email: president@njbeekeepers.org

2) Please speak to your town's council about these regulations. Use the script that was provided to you via email. This is working, and the more towns that oppose the regulations, the better.

TO DO: Contact your town and ask them to oppose the regulations.

3) If you are a member of any bee-friendly groups, such as a gardeners club, environmental club, etc. PLEASE share the script with them and get them to also speak to their town's council and also respond to the public comments.

TO DO: Contact bee-friendly clubs and organizations to speak out on our behalf.

4) Public Comments must be submitted by January 19, 2018. We are currently waiting for direction about when we should submit comments. For now, please review the proposed regulations and start to formulate your responses. Soon, you will get an email with directions on what to do, along with a template on what to say. So, bee ready.

TO DO: Formulate your response. Bee Ready to respond once you get the go-ahead.

5) You must comment before January 19, 2018. Everyone's comments are very important, the more people who comment on the proposed regulations, the better.

TO DO: Bee Ready to supply comments to the proposed regulations.

Mite Management

A Successful Beekeeper is a Successful Mite Manager

by John A. Gaut
Master Beekeeper, EAS

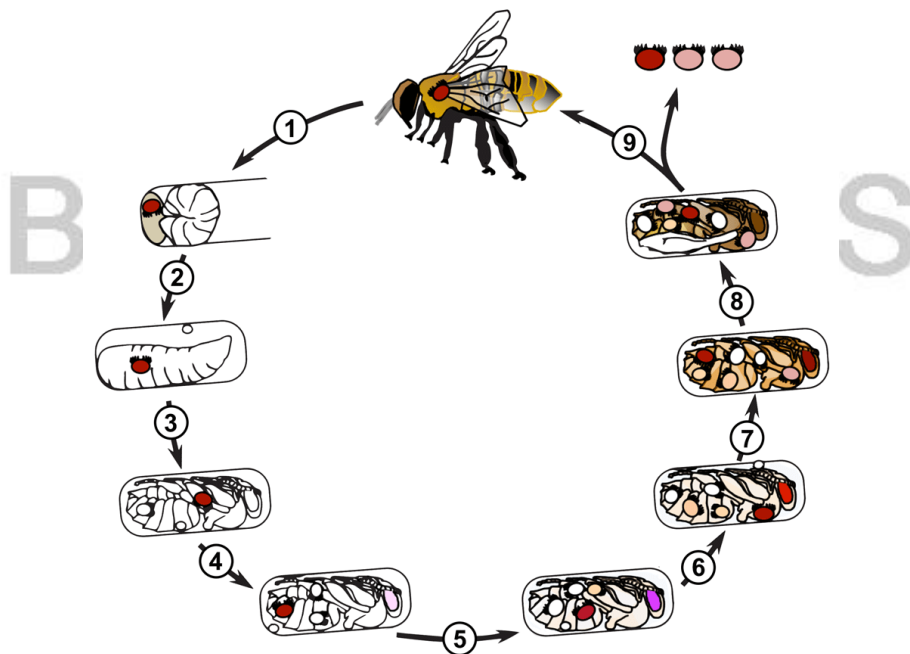
We have all struggled with mites and poor unhealthy colonies caused by high mite infestation. Many beekeepers know they must treat for mites. Success in beekeeping (colony survival, honey production) depends on good mite management, an advanced beekeeping skill. Mite Management is more than treating and hoping for the best.

Mite Management is:

- Understanding the biology of the varroa mite
- Understanding the population dynamics of the colony and mites
- Developing a Plan that includes testing and treatment
- Executing the Plan
- Assessing the Results and developing an improved plan, incorporating any new information

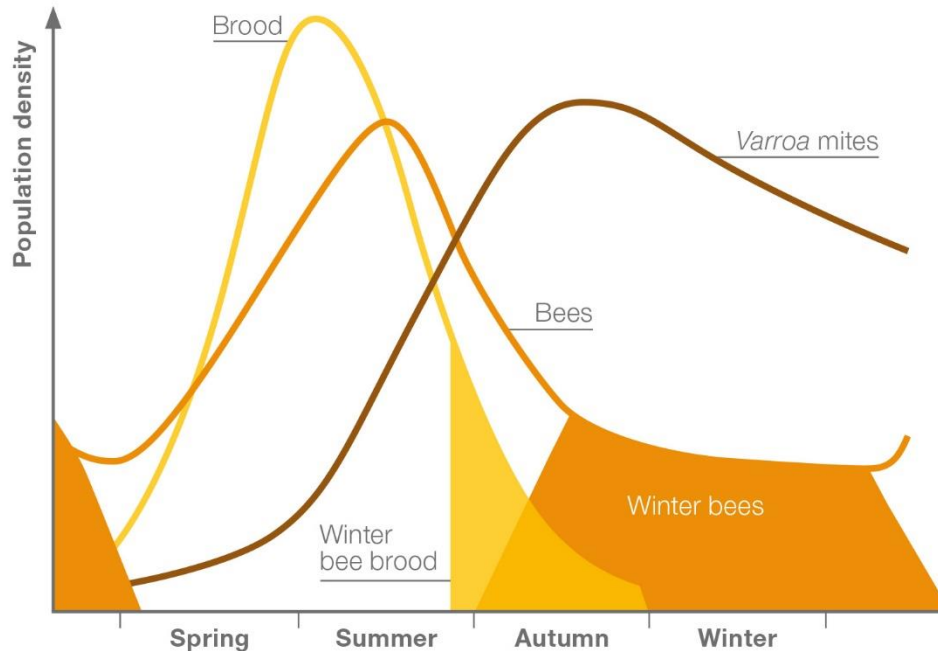
Varroa Mite Biology

The basic life cycle of the varroa mite is well known. The illustration shows a mated female mite entering the cell just before it is capped. Once the cell is capped, the female mite begins laying eggs. The first egg is unfertilized and will be a male. The other eggs are fertilized and will be females that mate with the male. Once the new honeybee emerges, the mature female mites also emerge and then reproduce in other cells. One mite can produce 2 to 3 mature female offspring every 2 weeks. The mite population can grow quicker than the bee population!



Population Dynamics of the Varroa Mites and the Honey Bee Colony

The mite population can be low at the beginning of the year but can cause a colony to collapse by the end of the year, or be in such bad shape that the colony barely makes it through the winter and collapses the next year. In the Fall the honey bee population naturally decreases while the mite population continues to grow. Now a very high proportion of the brood cells are infested with mites; many have two or more females reproducing. The bees being parasitized in the Fall are the winter bees. If many of the winter bees are weak and infected with viruses, the colony probably will not survive.



Graphic: Varroa population

Varroa mite population through the seasons.
© Bayer Bee Care Center, Bayer AG | Source: Brochure <<The Varroa mite>>

The best method we have for measuring mite levels is the Alcohol Wash Method. It only measures the proportion of mites on the bees though. In the Spring and Summer most of the mites are in the brood. Once brood rearing decreases in the fall, many more mites will be on the bees and higher proportions of mites will be observed in the Alcohol Wash.

Another issue in the Fall is unmanaged colonies (feral colonies or colonies of beekeepers who do not successfully manage mites) collapse in the Fall and there is significant mite immigration into surrounding colonies. I see spikes in the Fall mite counts as a result of this immigration.

The Plan

A plan begins with the end in mind; a goal. A sustainable goal for Varroa management is to have less than 1% mites in the Alcohol Wash in the early Fall. This means that levels need to be very low (less than 1%) in the Spring and Summer. There are several good treatment options. I have been successful using MAQS and ApiVar. Below is an outline of my plan for 2018. I start off the year by using strips of ApiVar in the winter cluster. Most of the mites are on the bees and not in the brood during January and February. ApiVar is highly effective if used for the full 56 days and the strips are

moved as the brood nest moves (half way through the treatment). I treat again with Mite Away Quick Strips, MAQS (formic acid) in the summer. Since I use a full MAQS treatment (2 pads), the actual date for treatment with MAQS is very dependent on the weather. I wait for until the daytime temperatures are low less than 80F and the evenings are cool. The July treatment with MAQS kills most of the mites, including the mites in the brood cells while the honey supers are still on. The colony is then relatively mite free as they begin rearing winter bees. If I can, I delay the Fall treatment until September because this is when I have a real problem with mite immigration from collapsing colonies in the area. Other proven (effective) treatments may come available and I'll update my plan as needed.

Your plan may be different, using different treatments. The most important part of the plan is monitoring the mite levels and verifying the treatments were effective. If mite counts are not taken before and after the treatment, you will not know if the plan was successful until it is too late.

Mite Management Schedule

<u>Planned Date</u>	<u>Task</u>
Friday, January 19, 2018	Treat with ApiVar. Place strips on frames of brood.
Wednesday, February 14, 2018	Move ApiVar Strips After 4 weeks (if brood nest has moved)
Friday, March 16, 2018	Remove ApiVar Strips
Sunday, April 1, 2018	Alcohol Wash Mite Check
Sunday, April 1, 2018	Add Honey Supers
Wednesday, May 16, 2018	Alcohol Wash Mite Check
Thursday, July 05, 2018	Alcohol Wash Mite Check
Thursday, July 05, 2018	Treat with MAQS
Wednesday, July 18, 2018	Alcohol Wash Mite Check
Tuesday, September 18, 2018	Remove Honey Supers
Tuesday, September 18, 2018	Alcohol Wash Mite Check
Tuesday, September 18, 2018	Treat with ApiVar. Place strips on frames of brood.
Tuesday, October 16, 2018	Move ApiVar Strips After 4 weeks (if brood nest has moved)
Tuesday, November 13, 2018	Remove ApiVar Strips
Tuesday, November 13, 2018	Alcohol Wash Mite Check
Tuesday, November 13, 2018	Treat with Oxalic Acid Dribble if needed

Executing the Plan

Planning is the easy part; executing the plan is often difficult. Alcohol Washes take a little extra time while inspecting a colony. The information is important though. I found that if the mites were low in the Spring, the following washes were also low. (Most of the mites are in the brood and not on the bees in the Spring and early Summer.) The Fall is a different dynamic with decreasing brood rearing and mite immigration. Keeping records (e.g. Planned verses Actual dates and actual mite counts) helps with improving the plan for next year.

Assessing the Results and Developing and Improved Plan

I have modified my plan every year. There is always new information related to treatment options and methods. The alcohol mite washes show what is effective and what needs improvement. I have learned that sampling every hive in an apiary is beneficial. Assuming all the hives have similar mite counts based on one or two samplings can be very misleading. (Colonies with breeder queens or potential breeder queens are sampled for mites and nosema more frequently. Some colonies seem to hold down the mites better than others. I'm always looking for those!) Develop your own plan based on what has proven to work for your area and bees.

Mite Management is much more than just treating the colony and hoping for the best. The successful beekeeper develops a solid understanding of varroa mite biology and the seasonal dynamics of the both the honey bee population and the mite population in the colony. Successful beekeepers anticipate the needs of the colony by planning to both test and treat during the year. Execution of the plan is adjusted based on the testing and any new information. Records of actual results can be used to improve the mite management plan.

Developing your Mite Management skills is one of the most important Beekeeping Skills. Good Mite Managers have strong colonies that survive the winter and are good honey producers the following season.



Beekeeping Courses

Every beekeeper should take a beekeeping course!

AND

There are several courses offered locally:

The Essex County Beekeepers offers a course on Saturdays February 17 and 24, with a snow date of March 3. Also, part of the course is a field day for hive inspections in April. Landi Simone teaches the course. Registration is through the NJBA site, http://njbeekeepers.org/ECBS_Reg.htm

The Sussex County Beekeepers has a course in January. (see flyer below for more info.) Anyone with questions should email SCBA.school@gmail.com.

REGISTRATION: <http://events.constantcontact.com/register/event?llr=9t5mnelab&oeidk=a07ees41lte0af76ca>

Hudson Valley Bee Supply also has a one-day course.

<http://www.hudsonvalleybeesupply.com/beekeeping-fundamentals-february-3-2018/>

Sign-up for these courses ASAP. They fill up quickly.



Course Fee

Full Registration: \$75 per person
Additional guests are only \$35 each with a full registration.*

When

Saturday, January 20th, 2018
8:30 AM - 4:30 PM

AND

Saturday, January 27th, 2018
8:30 AM - 4:30 PM

(Snow Date)

Saturday, February 3rd, 2018
8:30 AM - 4:30 PM

Where

Lafayette Township Fire Department
126 State Route 15 North
Lafayette Township, NJ 07848



Driving Directions

Contact

Judy Tonkin
SCBA Corresponding Secretary
scba.school@gmail.com

Sussex County Beekeepers Association

presents

Introduction to Beekeeping

It's here! The Sussex County Beekeepers Association (SCBA) *Introduction to Beekeeping* course.

What's included in your registration?

- Two full days (Saturday, January 20th and Saturday, January 27th) of instruction on beekeeping from New Jersey's most experienced and successful beekeepers
- The *Backyard Beekeeper*, 3rd edition, by Kim Flottum
An essential resource for the beginning beekeeper
- Copies of all presentations
- 1st year membership in the [New Jersey Beekeepers Association](#) and the Sussex County Beekeepers Association (SCBA)
- Continental breakfast and lunch

Make it a family affair! Additional registrants are only \$35 each with each full registration (\$75).*

There are a limited number of scholarships available for high school and college students. To apply, request an application form at SCBA.school@gmail.com. A current student ID is required.

Classes fill up quickly so [register](#) today! *(Please note that your registration will not be complete until payment is received)*

Make sure to mark the snow date (February 3rd, 2018) on your calendar just in case!

We look forward to seeing you in 2018.

Judy

*** Please note:** To qualify for family rate registrant and guests must reside at the same address. Each full registration will receive the 1 (one) copy of the *Backyard Beekeeper*, presentation copies NJBA/SCBA membership and a 2018 *Beekeeper's Calendar*. Additional guests of the registrant will receive presentation copies only.

[Register Now!](#)

Do Honey Bees Sleep?

By John A. Gaut

I have an observation hive in a local farm store. The hive usually gets a lot of attention from the kids. Recently a young girl asked if the bees were sleeping. We watched a few bees next to the glass for a few minutes and she concluded they were sleeping since they did not move. Was she right? Do bees sleep?

Bees do sleep! One study from 2008 (see the reference at the end) looked at how sleep behavior changed over a bee's lifetime, and where a bee sleeps in the hive.

- Very Young bees that clean cells tend to take very short naps (less than a minute) and often sleep in a cell, maybe even the cell they are cleaning.
- Young nurse bees sleep a little longer each time they nap and sleep both in a cell and outside the cell on the comb, typically in the brood nest area.
- House bees (bees that store food and patrol the hive) had longer naps and mostly slept outside the cells toward the outside of the hive.
- Forager slept the longest when asleep and usually slept on the periphery of the hive (outside comb and hive walls).
- Foragers had a daily rhythm for sleeping. They slept mostly at night. This is consistent with foraging during the day. (They probably need to let their flight muscles recover too!) House bees also tended to sleep more at night.
- The younger bees did not have regular sleep schedules.

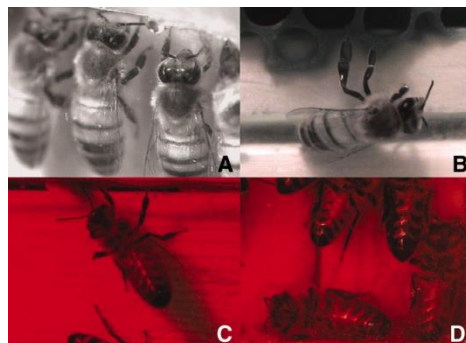
Much more detail can be found at:

Caste-dependent sleep of worker honey bees

Barrett A. Klein, Kathryn M. Olzow, Arno Klein, Katharine M. Saunders, Thomas D. Seeley

<http://jeb.biologists.org/content/211/18/3028>

Worker honeybees displaying typical sleep postures while relatively immobile, with limbs and body drooping in the direction of gravity. (From Caste-dependent sleep of worker honeybees.)



Beekeeping Memories

by Karl Schoenknecht

I wonder how many of us remember the name Dr. Karl Ritter von Frisch (1886 – 1982). He was born in Austria and was schooled as an ethologist (a person that studies animal behavior). Dr. von Frisch knew that ever since humans started working with honeybees, thousands of years ago, many marveled at the ability of a bee returning from a good nectar source could tell other bees where to find the source. Shortly after a bee returned from a source many bees would leave the hive to gather nectar from that exact place. Observation hives could not exist before window glass was discovered in the early 17th century but von Frisch, well-schooled in the Scientific Method for research realized the advantages of a glass hive. He developed a six frame observation hive between glass panes that allowed one to see all sides of the 6 frames. He also developed a color coding system where white=1 or 6, red=2 or 7, blue 3 or 8, yellow=4 or 9 and green=5 or 0. By painting color dots on up to four different body locations he could individually identify 599 bees.

Dr. von Frisch marveled at the bees' sense of smell that enabled them to identify and find sugar water on an undesirable blossom at the botanical gardens in Munich that held 700 flowering plants in bloom. He later determined that the bee dance, he later called the waggle dance, sent bees to a location regardless of how much he confused them with an assortment of odors. He later proved the bees dance angle was in relation to the sun, which they could determine even on cloudy days. Dr. von Frisch now happy with his findings still had to convince the general population.

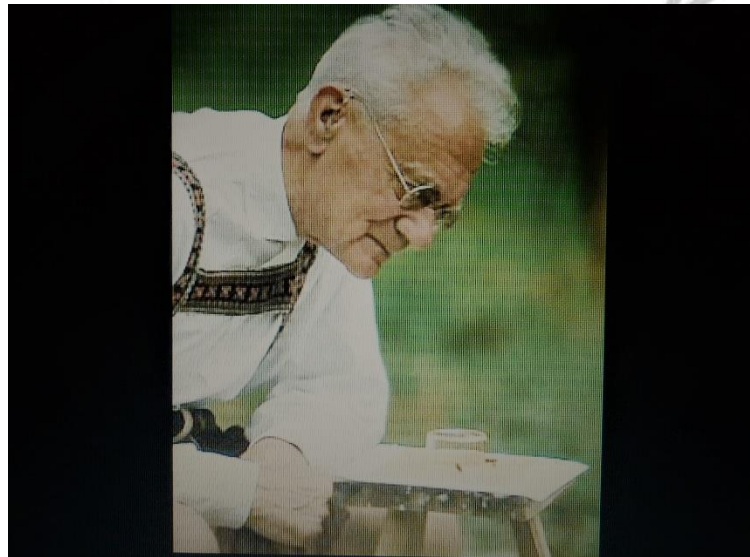
He was teaching in Munich Germany in 1927 and was working with students to prove that honeybees could communicate. He had devoted many previous years to figuring out the purpose of the waggle dance performed by honeybees. He had shown that honeybees performed the dance to show other bees in the hive where they found a good source of nectar. Like a figure eight with a straight line between the loops a bee would waggle along the straight part that would show the direction in relation to the sun. Doing the dance on a flat surface like a hive frame showed the angle was the same regardless of the frame being vertical or horizontal. He also determined that the speed they walked through the figure eight gave the approximate distance from the hive. Eight or nine loops in 15 seconds told him the source was near, only a few hundred yards but a source he created 3.7 miles away showed a slow dance of 2 loops in the same amount of time.

He tried to convince other people that this dance was a form of communication but only his colleagues believed him. He was also convinced that this dance might be used for other communication needs. With his students eager to help he determined that a hive was due to swarm and when he watched a very energetic waggle dance he gave the students the location for the new honeybee home site. A large group of students arrived on bicycle at the middle of town. They told people they were waiting for honeybees to arrive. The townsfolk looked with wary eyes and said what kind of prank are these children planning?

At this time Germany was under the Treaty of Versailles and needing to pay reparations after World War I. Germany was becoming a nationalistic police state and slowly transferring power to the Third Reich. When the bees arrived with a loud buzzing, the townsfolk ran for cover, many screaming. The police came, arrested the students and asked for the person responsible. Dr. Von Frisch was forced to prove his theories and the

police quickly found that the doctor's grandmother was Jewish. If the doctor could not prove that honeybees could communicate he may have been imprisoned and his life's work lost. The Doctor's colleagues came to rescue him but officials were skeptical and difficult to convince. The German government finally realized the importance of honeybees to local farming. They wanted to prevent another famine like the one they endured after the blockade of the First World War and eventually allowed Dr. Karl von Frisch to be released and to continue his research and teaching. Dr. Karl von Frisch wanted to learn much more but he left us with a legacy of knowledge that enables beekeepers and students to continue his work and better communicate with honeybees.

Dr. Karl von Frisch (1973) won a Nobel Peace Prize for Physiology or Medicine with Konrad Lorenz and Nikolaas Tinbergen for his research in physiology and communication between insects.



Dr Karl Von Fritsch as shown on Wikipedia

BEEKEEPERS



Join Us This Friday for:



Northeast NJ Beekeeper Holiday Party

Friday, December 15th, 7:30 PM

The Pavilion, Ramapo College, Mahwah, NJ





Make a purchase at Metropolitan Farm or
Metropolitan Plant & Flower Exchange
Valued at \$50 or more and Metropolitan will donate
\$10 to the **Northeast NJ Beekeepers
Association.**

Complete Form Below & Present at Time of Purchase

Offer Expires 12/31/17

Cannot be combined with any other offers

Name _____
Address _____ _____
Email _____
(For Store Use) Order # _____ Total \$ _____ Date _____

2125 Fletcher Avenue Fort Lee, NJ 07024 201-944-1050	471 Mt. Pleasant Avenue West Orange, NJ 07052 973-736-0049	840 Route 17 North Paramus, NJ 07652 201-445-7101
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Visit Our Newest Location:

Metropolitan Farm 119 Hickory Lane Closter, NJ 201-767-0244

www.metropolitanfarm.com



Northeast New Jersey Beekeeper...

Public Group

Joined ▾

Share

Notifications

...



Our Facebook Group has **over 1745 fans** from all over the world! It's a great place to connect to other beekeepers, so bee sure check out all the great bee pics, bee stories, and bee info.

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
Mike Miller	Club apparel
Bob Slanzi	Meadmaster

Next Month

Guest Speaker, Grant Stiles

Late Winter Mite Control & Hive Management



The First Rule of Bee Club: Tell Everyone about Bee Club!