



nnjbees.org

August 2017



NORTHEAST NEW JERSEY BEEKEEPERS ASSOCIATION OF NEW JERSEY

A division of New Jersey Beekeepers Association

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Meeting on: **Friday, August 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, August 18th** when The Northeast NJ Beekeepers continues our BeeTalk series where the focus is on you and your questions. This month's topics are **feeding, dealing with the dearth and mite treatments**. Bring your questions and enthusiasm. See you there!

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.”



In Remembrance:

We are sad to report that the Northeast NJ Beekeepers lost two dear friends this past week.

Janie Edmonds passed away this past Sunday, August 13, 2017. Janie went to the hospital Saturday with pneumonia and a hidden infection. The infection quickly became overwhelming and irreversible. She passed on Sunday. Arrangements are being made and have not been finalized at this time. Janie leaves behind her loving husband, Reg.

Robert Leustek died in a truck crash in Massachusetts on Tuesday morning (August 15, 2017). Robert was driving a dump truck in Colrain, Mass., when the vehicle left the road and struck a house. Robert left behind Gloria, his loving wife.

Both Janie and Robert will be sorely missed. They always contributed a lot to our club and they were both very good people who were taken away from us way too soon.

We will provide more details when they become available.

Before them, under the garden wall,
Forward and back
Went, drearily singing, the chore-girl small,
Draping each hive with a shred of black.

Trembling, I listened; the summer sun
Had the chill of snow.
For I knew she was telling the bees of one
Gone on the journey we all must go!

"Stay at home, pretty bees, fly not hence!
Mistress Mary is dead and gone!"



Message from the President:

Hello Northeast NJ Beekeepers,

Welcome to one of the most important times of the year for beekeepers. August is the peak of the dearth, and what you do now will impact if your bees live through the winter.

First, now is when you want to treat for mites. A strong colony needs healthy bees to survive the long winter months, and for those bees to be at their peak level of performance, they need strong bees to take care of them when they are Larvae. This means that a colony needs several generations of healthy bees BEFORE the queen lays the eggs of the workers who will brave the winter months. So, controlling your mite population now will have a domino effect on future generations within the hive.

It is also important to remember that because of where we live and keep bees, it is important for ALL Beekeepers to treat for mites. Worker bees travel on average 2-3 miles from the hive, and can fly up to five miles from the hive. If you went to a map and started drawing circles that represented a 3 mile radius from all the hives in our club, I think you'd see that everyone's "fly zone" overlaps with at least one other beekeeper's hive. Therefore, if only 1 or 2 Beekeepers don't treat for mites, they could end up killing 100s of colonies in our area.

Bottom line is this:

TREAT FOR MITES OR DON'T KEEP BEES.

While that may sound harsh, the reality is that it's not fair to all the beekeepers who responsibly treat for mites to lose their hives because someone didn't want to treat.

The second most important thing to do this time of year is feeding. Depending on your area, nothing has been in bloom for 5-7 weeks. That means bees need food. It's always a good idea to check on your hives reserves before, and as you are feeding. Hives need around 80 pounds of honey to make it through the winter, AND all hives need room for the queen to lay eggs. This means that you could overfeed your hives, making them honey-bound, meaning they have loads of honey, but zero room for brood.

The best way to know is to regularly go into your hives and look.

Speaking of feeding, always remember that you must take your supers off before feeding. If you feed while your supers are on, you do not have honey, you have sugar syrup.

Also, remember that it's always better to have 1 strong hive instead of 2 weak hives going into winter, so if you have a hive that doesn't have the numbers your other hive(s) have, combine the weak hive with another hive. (Kill the queen, and combine the brood and adult bees with another hive.)

Last, it is important to keep an eye on robbing. When nothing is in bloom, stronger hives will look to rob out weaker colonies. If you have any smaller colonies or nucs, you may want to think about using robbing screens. More important, make sure you are careful when you are feeding. Only open one hive at a time, and cover your syrup when you are not filling the feeders. Also be careful and try not to spill the syrup, as that too can cause problems.

We will be talking about mite treatments, feeding, and getting ready for winter at Friday's meeting. I hope to see everyone on Friday, as what will be discussed will be impacting next spring's honey crop.

Speaking of honey crop, we will also be talking about next month's **Honey Cup!** It is shaping up to be our best honey tasting competition yet!

I look forward to seeing everyone on Friday!

Sincerely,

Frank Mortimer
President, Northeast NJ Beekeepers

BEEKEEPERS

Call for Volunteers for honey festival

Our honey tasting has grown to a Honey Festival to be held Saturday, Sept. 9, beginning at noon. We will have vendors, music, food, demonstrations, a honey selling table from our members, along with our honey contest. We are in need of volunteers to help before the day and the day of. We need take charge people to handle the vendors, the education table, the t-shirt sales, the honey sales and the food along with set up and clean up. Please contact Jaimie Winters at jaimw@aol.com or 551-486-7479 as soon as possible if you can volunteer. Let's make this a great event!

ApiVar 4 Sale

The club will again be selling ApiVar at Friday's meeting. \$35 per 10-pack.
Supply is limited, so get yours on Friday!



BEEKEEPERS



Proposed Bee Regulations--RECALLED

The proposed draconian bee regulations have been recalled by the NJ Department of Agriculture.

If you read the statement on the NJDA website (attached) it states: "...recalled for additional discussion based on informal comments received by the NJDA to date."

This statement translates as, "WE DID IT! We made our voices heard!"

It is very good knowing the severely-flawed regulations will NOT be published. This means the NJDA is redrafting their proposed regulations before once again allowing for comment.

Every NJ beekeeper needs to thank Janet Katz for her leadership, and her continued work to ensure that the bee laws will benefit every beekeeper and all the citizens of New Jersey. Further, a HUGE THANK YOU to every member who took the time to call and write the NJDA. As you can see by the result, your voice did make a difference. Thank you for taking the time to make your concerns heard.

Last, this is not over yet, so please stay tuned and bee ready for what we all need to do next. Hopefully, the NJDA will work with us to ensure the regulations are sensible and based on science. But at least they now know that beekeepers will always fight for what is right!

Thanks Everyone!



Beekeeping in August

John A. Gaut

****This is an update of the monthly note is sent to all the Mentors and Mentees ****

Fortunately, my bees have been able to manage themselves for the last week in July and the first week in August. I was in Wisconsin and then attended the Eastern Apiculture Society conference in Delaware. (I delivered two presentations at EAS.) The conference was great as usual. I reconnected with Beekeepers I met at other conferences and met some new Beekeepers too! There were a lot of Beekeepers from NJ. I also continued to learn new things about bees and beekeeping. The conference is in Virginia next year (August 13th to 17th.)

Before I left on my trips, I was able to finish honey extraction and get mite treatments on the hives. The mite counts have been trending up and I know there are mites in the brood. Fortunately, there were a few cool days and evenings perfect for applying MAQS. Even though the temperatures were in the low 70s during the day and low 60s at night, the bees did cluster outside and there was some bee loss as expected. I'm following up with alcohol wash mite tests now and getting very low mite

counts.

The very broad consensus at EAS was you must manage varroa mites to help the bees survive. Tom Seeley is studying surviving wild colonies in the Arnot Forrest. These colonies survive without treatment (they are widely distributed and relatively small). Tom Seeley's colonies in his backyard are much closer together and much larger; he has to treat his colonies for them to survive. A few people are working to include genetics in queens that help colonies fight mites. Clearly VSH (Varroa Sensitive Hygienic behavior) and Mite Biters (the propensity to groom and bite mites) are helpful. Unfortunately, these bees can still be overtaken by mites so treatment is still needed. There is also broad agreement that Beekeepers that do not treat and keep their mite levels low not only kill their bees but also kill other colonies in the area with their "varroa mite bombs."

I have not had to feed most of my colonies yet. (Most years I am feeding now.) Some smaller colonies and mating nucs do need a little feed though. Feeding requirements will vary by location so check your colonies! The bees are starting to work on some of the early golden rod and other flowers helped along with the nice rains we have been getting. I will continue to check my colonies to be sure they are raising some brood and have enough nectar and pollen coming in to support the brood.

Here are a few pictures taken on August 5th.



Below are the points the Mentor and Mentee should include in their discussions:

- Providing water for the bees
- Nectar Dearth and Robbing (install robbing screens)
- Hive Inspection and Colony Evaluation
- Mite Monitoring
- Mite Treatment
- Tactical Feeding

Now is the time to treat for mites if you haven't already. There are several good treatments including ApiGuard (thymol gel) and MAQS (Formic Acid). Use the alcohol wash to test for mites before and after treating. If you don't check mite levels before treatment, you will not know if the treatment was effective.

Here are the Tips on using MAQS:

- Apply only when the daytime high is forecast to be less than 85 F for the next 3 days; less the 80 is even better.
- Apply the strip in the evening; ideally an evening when it will be cool overnight.
- Close the bottom board (insert the IPM board). **THIS IS VERY IMPORTANT!**
- Remove the entrance reducer.
- Refrigerate or freeze the MAQS before application to reduce the initial evaporation of the formic acid.
- Minimize the disturbance to the colony; open the colony, place the strip and close the colony quickly and gently. Use only a few "breaths" of smoke.
- Remove the strips after application when you are doing the second treatment or taking the mite counts.
- Watch this video: <http://nodglobal.com/application-usa/>

What is Tactical Feeding? Right now, we are helping the colony get ready for winter. The colony will need healthy "winter bees" that enable the colony to survive the winter. (Winter bees are physiologically different than summer bees, enabling them to live for 5 to 6 months.) The colony needs to continue to raise healthy brood now; these bees will be raising the bees that will raise the winter bees. The colony should be fed some sugar syrup to stimulate the colony to continue to raise new bees. Tim Schuler recommends about a gallon a week as a guideline. During your inspection, you should see several frames of brood with nectar or honey (and pollen) above the brood. The larva should look moist and well fed. (The youngest larva should be floating in a little jelly.) If you do not see much honey and there is limited honey in the rest of the hive, you may need to increase the amount being fed. If you see the brood nest being backfilled with syrup, reduce or temporarily stop feeding. The queen needs space to lay her eggs.

Robbing is a possibility this time of year. Robbers will try to enter any small opening into the hive (see the picture). Seal up all these openings! Many beekeepers put an entrance reducer on the hive to make the entrance more defensible. But the robber bees follow their noses (actually antenna) and focus in on the smaller opening. Robber screens are much more effective. A robber screen takes advantage of bee behavior: A robber will not go over a screen to enter a colony not her own. A

forager from the colony will find her way over the screen. Robbing screens can be purchased. I make my own out of #8 hardware cloth (1/8" mesh screen). The screen covers about 90% of the entrance. The guard bees are concentrated at the smaller entrance and can provide a more effective defense. A screen allows for better ventilation than an entrance reducer too.



When you are feeding, be very careful not to let any syrup drip on the ground or on the hive. Be sure the feeders are not leaking. The extra syrup will attract other bees and potentially set up a robbing situation.

Also minimize hive manipulations during the dearth. I always have more and more “interested parties” the longer I have a hive open now. I use a quiet box and covers to reduce exposed frames. (I did create a robbing situation a few days ago. The hive was not open very long but I did not cover the boxes.)

While we are “enjoying” the rest of the summer the bees are preparing for winter. Beekeepers can help by insuring the colonies have enough nectar, honey and pollen for the young bees, the bees are not parasitized and infected with viruses from the mites and the colonies can defend themselves from robbing.



BEEKEEPERS

Highlights from the 2017 Eastern Apiculture Society Conference

John A. Gaut

The EAS Conference was held at the University of Delaware this year. I was able to attend 4 of the 5 days and as always learned a lot! Below are is a sampling from my notes.

Sam Droege spoke about Native Bees. Sam has published a book with some fantastic pictures of native bees. (I was able to get a signed copy!) There are 4000 species of native bees in the continental US, most in the deserts of the Southwest. There are over 800 East of the Mississippi. Here in the mid-Atlantic region, we have over 400 native bees! There is a high diversity of bee species and most are highly specialized, feeding on only one species of flower. All the native bees need high quality wild habitat with native plants to survive.

Steven Cook spoke about the importance of nutrition for winter survival. A colony can have poor nutrition due to the lack of diverse pollen sources. If the nutrition is poor, there will be less vitellogenin (fat bodies) in the winter bees and they will be forced to forage earlier. Bees that begin foraging do not live as long as bees that stay in the hive, resulting in less bee population and smaller winter clusters. (I wonder if seeing a colony start to forage in the early spring is really an indication of a healthy colony. It may be the opposite; an indication the colony is under nutritional stress!) The good news is the vitellogenin levels increase with increased protein supplements.

Jennifer Berry gave her tips for keeping bees alive.

- Use superior queens
- Use good equipment
- Location, location, location
- Regular colony and queen assessments
- Swarm prevention

January and February are critical times for the bees. Her guideline is that for every frame of brood and bees, the colony needs 1 ½ frames of honey. (In this area, 2 frames of honey plus a frame of pollen for every frame of brood is needed in February. This means the top deep is mostly honey and there is pollen on several frames in the lower deep.)

Paul Kelly from the University of Guelph in Canada presented their queen rearing techniques. I got to talk with Paul over breakfast one morning. Guelph raises a Buckfast line of bees that are very gentle. One of his points was that gentle bees can be good honey producers too. (One of the “Myths of Beekeeping” is that nasty hives produce more honey. That is wrong! The genes that determine defensiveness are not related to the genes that determine honey producing capability.)

Tom Seeley was a featured speaker. He talked about an “Evolutionary Approach to Apiculture.” He gave an update on what he has learned about the wild survivor colonies in the Arnot Forest.

- Colonies are genetically adapted to their location
- Colonies live in widely spaced hives (1 mile between each colony).
- Colonies live in small cavities (equivalent of 1 deep).
- The nest cavities are coated with propolis.
- Nest entrances are high off the ground (average 25 feet).
- Colonies are not treated for pests and diseases
- Colonies build drone comb freely to produce a lot of drones.
- The colonies swarm frequently

While the colonies that survive in the wild are not treated, Tom has to manage the mites and diseases the colonies he has in his backyard and at the University. Some of the learnings from the wild bees can be applied to managed colonies.

- The colonies themselves are excellent beekeepers. Honey bees have been surviving for 30 Million years; humans have only been beekeeping for 4,400 years.
 - Keep bees adapted to your location.
 - Allow the colony to propolize the equipment.
 - There is a tradeoff between honey production and colony health.
 - Bees can manage mites with mite grooming and biting behaviors and with Varroa Sensitive Hygienic behaviors.
 - Bees may be able to resist viruses if the virus levels are low.
-

There was much more. I would highly recommend everyone consider attending the Conference next year. You can attend for 1 to 5 days. The first two days (Monday and Tuesday) are for short courses and the main conference starts on Wednesday and ends with a banquet on Friday. The conference will be at Hampton Road in Virginia. The conference center and hotel looks nice. The Conference will be from August 13th to 17th, 2018.

The link is <http://easternapiculture.org/conferences/eas-2018.html>



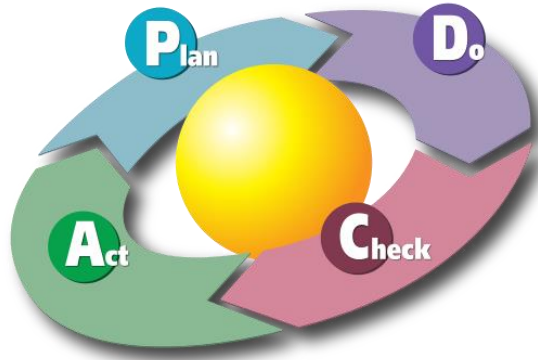
Mite Management

John A. Gaut

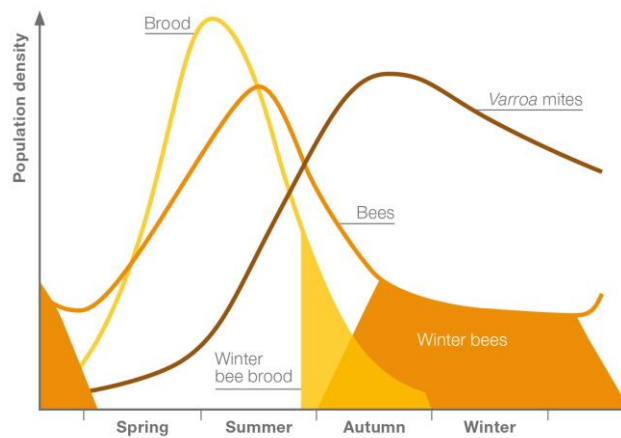
If you are a beekeeper, you are also a mite keeper. If you want your bees to be healthy, you must also be a Mite Manager. The varroa mite is everywhere in the Americas and every colony of bees has mites. If you see bees crawling on the ground outside the hive or bees with deformed wings, the colony is highly infested. If you see mites on bees, the colony is very highly infested.

A Beekeeper is responsible for managing the colony, providing resources when needed and taking action as needed to ensure the colonies wellbeing. A Mite Manager is responsible for maintaining low levels of mites to help ensure the colonies wellbeing. Keeping the level of mites low (1% or less) will prevent the virus epidemics that cause colonies to collapse. Highly infested colonies often collapse anytime between the late Fall and early Spring. It may look like the colony absconded in the late Fall; they actually died of a virus epidemic. In the spring it may look like they starved or got too cold; the colony may have died because too many bees had viruses that paralyzed them (they could not maintain a cluster temperature and move to honey).

To be an effective Mite Manager, you need to understand the mite life cycle and be able to execute. (I have known a few managers at work that are very smart but could not execute. They were not effective. I also knew managers that did not “know it all”, but could execute and continued to learn and make improvements all the time. These managers were effective.) One effective method in management is PDCA; Plan-Do-Check-Act (or Adjust) process. It is an iterative process as shown below.



The first step as Mite Manager is to Plan. To plan, you need to understand the population dynamics of both the colony and mites. The diagram below is a good illustration.



Graphic: Varroa population

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

In the spring, the mite population is low and the bee population increases rapidly by intense brood rearing. Brood rearing is also an opportunity for the mites to reproduce so the mite population increases too, lagging behind the bee population. (An alcohol wash is expected to be near 0% in the spring and early summer because most of the mites are in the brood; not on the bees.) Without any mite management, the mite population continues to increase. In late summer and fall the bee population naturally decreases and the bees prepare for winter. The mite population continues to grow though! Now the level of mite infestation becomes very high; more mites on less bees. And more mites infecting more pupa with viruses!

I Plan my mite treatments with the population dynamics of both the colony and mites in mind. Below is the plan I developed at the beginning of this year.

Mite Management Schedule

Planned Date	Task	Notes	Actual Date
Thursday, January 19, 2017	Treat with ApiVar (56 + 14 days before honey supers)	Put ApiVar Strip into Cluster Strips will be in place for 56 days (Reposition after 28 days)	Saturday, January 21, 2017
Tuesday, February 14, 2017	Move ApiVar Strips After 4 weeks 56+14-28	28 days after inserting (62 - 28)	Sunday, February 19, 2017
Thursday, March 16, 2017	Remove ApiVar Strips	Remove 14 days before Honey Supers are added	Friday, March 17, 2017
Saturday, April 01, 2017	Mite Check	Alcohol wash, Target is <1 mite per 100 bees	Monday, April 03, 2017
Saturday, April 01, 2017	Add Honey Supers		Monday, April 03, 2017
Tuesday, May 16, 2017	Mite Check	Only checked a few colonies, very low	Tuesday, May 30, 2017
Thursday, June 15, 2017	Mite Check		Friday, June 30, 2017
Tuesday, July 04, 2017	Treat with MAQS	Full treatment to knockdown any mites.	Tuesday, July 25, 2017
Tuesday, July 18, 2017	Check for Mites		
Wednesday, August 16, 2017	Check for Mites		Sunday, August 13, 2017
Monday, September 04, 2017	Remove Honey Supers		
Monday, September 04, 2017	Check for Mites		
Monday, September 04, 2017	Treat with ApiVar		
Monday, October 02, 2017	Move ApiVar Strips	28 days after inserting	
Monday, October 30, 2017	Remove ApiVar Strips	56 days after inserting	
Monday, November 13, 2017	Check for Mites		
Wednesday, November 29, 2017	Check for Mites	Check a few hives with mites on IPM board	

Then I Do! The plan has to be executed!!

Then I Check. I monitor for mites continuously through the season starting in April and into December. I have found it is really important to monitor more frequently in the late fall. This is the time of year strong colonies will rob out any weak or collapsing colonies (due to an overload of mites), bringing back those mites in the process.

I Act. I will make adjustments based on the mite counts. For example, last fall the mite levels were low in one apiary. Then all of sudden (in a week) the mite levels exploded. I had to re-treat all the colonies at that apiary in December. Fortunately, I was checking for mites, saw the problem and treated. All the colonies survived the winter nicely. (I'm sure they would have died or maybe survived with very small clusters if I had not treated in December.)

At the end of the year, I assess how the plan worked, gather new information on mite treatment options and develop the plan for the next year.

Like everyone, I wish I did not have to treat so much. I select breeder queens based on their ability to be mite managers themselves (along with being gentle and good honey producers). Genetic traits such as VSH (Varroa Sensitive Hygienic) and Mite Grooming/Biting behaviors should help. I Plan to monitor colonies next year to see which colonies keep the mites low themselves and (Do)select breeder queens from the best. I'll monitor the daughters of the best breeders (Check) and then select the best of those for the following years' breeder queens (Act). I will continue to monitor all the colonies for mite levels and treat as needed. Even the best Mite Managing colonies will collapse due to mites if they do not get help from their Beekeeper and their Mite Manager.



Mite-A-Thon

The first annual [Mite-A-Thon](#) will take place Saturday, September 9, to Saturday, September 16, and everyone should participate!

The [Mite-A-Thon](#) is a national effort to collect mite infestation data and to visualize Varroa infestations in honey bee colonies across North America within a one week window. All beekeepers should participate, creating a rich distribution of sampling sites in Canada, the United States, and Mexico. The Varroa monitoring data should be uploaded to www.mitecheck.com.

OBJECTIVE: 1) Raise awareness about honey bee colony Varroa infestations in North America through effective monitoring methods. 2) Management strategies will be made available for discussion within bee organizations utilizing Mite-A-Thon partner developed information and outreach materials.

PARTICIPANTS: All beekeepers are welcome to participate

WHAT YOU NEED TO DO:

1. Participate in September - <http://www.pollinator.org/miteathon>
2. Learn how to monitor for mites in August. <http://honeybeehealthcoalition.org/varroa/>
3. Prepare the monitoring materials.
4. Ask for support if needed to monitor mites effectively and report your data.

DATA COLLECTION: Participants will monitor the level of mites (number of mites per 100 bees) using a standardized protocol utilizing two common methods of assessment (powdered sugar roll or alcohol wash) and then enter data, including location, total number of hives, number of hives tested, local habitat, and the number of Varroa mites counted from each hive. The published information will not identify individual participants.

COST: There is no cost.

CONTACT: Miteathon@pollinator.org or 415-362-1137

Learn more and stay up to date at <http://www.pollinator.org/miteathon>



Northeast New Jersey Beekeeper...

Public Group

Joined ▾

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Notifications

...



1,733 Strong!!!

We quickly blew through the 1,600 member milestone and are, as of this writing **1,733** members strong, and growing on our Facebook page! Be sure check it out. See the great pics and stories posted by the Facebook fans from all over the world!

Remember: <http://www.njbees.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 The Annual Honey Cup, honey tasting competition.