

Sandusky River Valley Beekeepers Association



September 2021

Upcoming Events

SRVBA Annual Picnic (September Meeting)

- When: Sunday, September 19, 2021 at 12pm noon
- Where: Dr. Michael Stone's residence, 1850 State Route 12, Fremont, Ohio 43420
- Please bring a dish to share with the group.



Message from the President

Hello SRVBA Members!

September is PICNIC MONTH! The SRVBA annual picnic is Sunday, September 19th, starting at 12:00 noon. The club will furnish hamburgers and hotdogs, buns, condiments, water, and paper plate products. Please bring a dish to share with the group. Location of the picnic will be at Dr. Michael Stone's residence at 1850 State Route 12, Fremont, Ohio 43420.

It was great seeing everyone at our August meeting at the church. This was our first regular-in-person meeting in over a year and half, since the Covid-19 virus began. Let's hope we can continue gathering in-person and that governmental regulations don't change.

We had approximately 40 members present for the meeting. Linda Miller presented a PowerPoint presentation on "Preparing your hives for winter." Linda has over 35 hives and has had wonderful results in overwintering hives. Linda has only lost a couple hives in the last few years. It was very interesting and informative as to what Linda does to get the bees ready for winter.



Join Sandusky River Valley Beekeepers Association:

1. Fill out membership form
<http://srvba.ohiostatebeekeepers.org/>
2. Mail form to: SRVBA, c/o Tami Wylie, 1000 CR 312, Bellevue, OH 44811

Message from the President

This weather has been brutal; hot, muggy and rain showers. Honeybees are hanging outside trying to cool off, and trying to keep the hive cool. This is a natural behavior of the bees. They're not swarming and they will return back inside the hive after the temperature cools down.

It is getting a bit harder to work bees at this time of the year. First, hives have supers stacked on them. This means each hive inspection requires a lot of lifting. The bees are also a bit cranky, at times. I also just don't have much "get up and go" in 90 degree F. heat).

However, there are things that need to get done with the hives. I have started feeding some hives because of the lack of available forage for the bees. This year has been especially hard on the bees. If bees are still getting honey crops it is not time to apply chemical treatments for mites to hives. If honey crops have been harvested, it is now time to think about treating mites. Weak hives can still be saved!

I hope everyone is really monitoring their hives for Mites. August is the time to start treatments. But like I've mentioned before, be careful with what you're using with these high temperatures, to treat. You can drive the bees out of the hive if it's too hot and they can and will abscond the hive. Also, if you have honey supers still on, make sure what you're using is ok to use with honey supers. Do your research and read the product instructions.

Like I mentioned in the start of this letter, we will have our Club's annual picnic in September. For October, we are planning a field day at Gary and Tami Wylie's Apiary (Cherry City Honey) on a date to be announced later. What we would like to show members is how to prepare sugar boards for your hives, for the winter. Sugar board frames will be available for sale. We will demonstrate how to make the sugar board and prepare them for use. We will also show how we make pollen patties (both Winter (low protein) and Spring (higher protein) patties. There is a difference and we will also explain why.

Something that needs to be brought up is the consideration of 2022 SRVBA Officer elections in December. If you or you would like to nominate a member to an Officer position, please submit the name(s) to the Secretary, Linda Miller, so we can present the names to the club members in a timely manner for the December elections.

Please submit the nominations to Linda Miller at oneoldbroadwithhives@gmail.com

Message from the President

I do not plan on running for re-election for President. I was Vice President for a couple of years and have been President for the last two years. It's not that I haven't enjoyed the position, it's just that I feel that I have run out of ideas to keep the club moving forward. I feel that a new President will have different views and ideas to keep it fresh and interesting. I will always continue to stay and support the club.

Current Executive Officers

President: Tom Rathbun

Vice President: Dr. Michael Stone

Treasurer: Tami Wylie

Secretary: Linda Miller

Current Board of Directors

Kim Root

Jackie Kindred

Chris Earnhart

And the last bit of news that needs to be passed on is club-member Angel Mitchell is moving from the great state of Ohio. She and her husband Burke, have purchased some property in Kentucky. Burke Mitchell started as a member almost 10 years ago (not really sure on the years), but his work schedule prevented him from taking care of the bee yard. His wife Angel took over the apiary yard and has been a beneficial member of the club with her knowledge of Beekeeping, and helping with club activities. Angel was also the Secretary of the club for a number of years. Angel sold Nucs and raised and sold a number of outstanding queens. Best of luck with their new adventures Angel and Burke will be greatly missed by all of us.

Thomas Rathbun

SRVBA President

Message from the President (continued)

IN THE HIVE

August and September are months for hive robbing, and yellow jackets. Please don't leave exposed honey frames in the open, as this will promote a robbing frenzy that will be hard to stop once it's started. A strong hive will rob out weaker colonies, stealing and stripping them of all their honey stores.

Yellow jackets are a major pest of the honey bees in the fall. There are yellow jacket traps you can purchase, or make, that you can use a sugary soda pop (no diet) as bait. The yellow jackets will find it but the honey bees will leave it alone. Place the yellow jacket trap close to your bee yard, but not next to your colonies.



Tom Rathbun
SRVBA President

We have two club members, Jackie and Richard Kindred, who made a yellow jacket trap that worked especially well for them last year. Below is a link to the trap they made.

<https://youtu.be/mYI5B6rYggE>

Hopefully, by now, you have begun to gear up and prepare your girls for the upcoming winter months; combined your weak colonies, treated for mites, and left plenty of food stores for the bees. Your honey supers should be off by the first of October, by the latest.

Remember leave as much as 100 pounds of food stores. If food stores are lite, feed them a 2/1 ratio of sugar syrup (try to stay away from outside feeders such as boardman feeders because of attracting yellow jackets and robbing bees). It's best to use top feeders and frame feeders. Winter preps also include getting your mouse guards on, flipping over your inner cover so the notch is on the bottom.

You will also start to notice that the girls are kicking the drones out of the hive. This is a normal behavior, since the drones are only there to mate with a virgin queen. The mated queen will again lay drone eggs in the Spring when the brood rearing season begins.

Please stay safe, and enjoy the bee yard!

Tom Rathbun

President SRVBA

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Published with permission from: Stahlman Beekeeping Notes for 2021, Issue #36 – The Biggest Issue Involved in a Bee Hive's Survival—Varroa Mites (Varroa Destructor)—Page 1

In all my years of keeping honey bees, there has been no issue more challenging to me than mite control. Varroa mites have been around for over 30 years. After many years using various methods of mite control, they have survived to be the major reason why many hives of bees are lost every year. I am asked about how I treat for them. I have tried just about anything that has been offered for sale, managed brood interruption, introduced queens from outstanding stock, and used non-chemical drone brood removal techniques. I still can not advise any of you on the perfect # 1 control for mites.

There has been a lot of research to control Varroa mites. The best advice I can offer - study and read about research being done. Buy the best VHS stock you can afford. Switch products used in the hive from year to year. Mites have built up resistance to many of the chemical products used in hives. Finally, if you are to survive as a beekeeper— treat and use approved methods for mite control. You might visit: Honey Bee Health Coalition and get their Varroa Management Decision Tool. It is on the web and free.



Some facts:

-This mite is an external parasite that feeds on the honey bee.

-The disease caused by mites feeding on honey bees is varroosis.

-This mite can only reproduce in a honey bee colony.

-It reproduces in the cells of developing brood.

-It transmits viral and other pathogens.

-It is about the size of a pin head - note the bee in the first photo above.

-First discovered and identified by A. C Oudemans in 1904 - called Varroa Jacobsoni)

-First identified in the U.S. in 1987 (Dr. Roger Morse let readers of Gleanings in Bee Culture know that the Varroa mite in Europe would invade the U.S.- JANUARY Issue of Gleanings page 21)

First positive appearance reported in package bees shipped to Wisconsin from Florida in the spring of 1987. By that time packages of bees had been distributed throughout the Midwest. No one knows how they got to Florida!

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The Detection of Varroa Mites:

There are several ways to detect Varroa mites in a hive of bees.

-Visual inspection (Not very effective but Varroa mites can be detected on single bees) Many will be missed because they are hard to see – uncapping drone brood is a better method to identify a varroa mite infestation.

-If a person is using one of the common chemical treatments for Varroa mites, a sticky board can be placed on the bottom board to catch mites that fall as a result of the treatment. These sticky boards are sold by bee suppliers but one can be made easily using white poster paper. (This does not kill bees but gives one some data to use in determining mite population in the colony and the effectiveness of the treatment).

-Sugar roll or Shake Test: This does not kill bees – the equipment needed can be found in most homes. A quart jar with a lid, some powdered sugar, a dish pan or something to pour bees after they are coated and shook.

-Alcohol roll - much like the sugar roll except the bees are killed as the Varroa mites float free from the dead bees.

-Use an uncapping fork to remove cappings especially on drone brood.

Treatment for Varroa:

Non Chemical treatment

Screened bottom boards

Drone brood trapping

Mite resistant queens

Brood interruption

Requeen with resistant stock

Chemical treatment – Many choices are available – I have tried most and still find some do not work as well as expected. I can make no recommendation except to change from one product to another each beekeeping season. Mites have built up resistance to some of the chemicals used as treatments.

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One thing I have learned is that almost every company selling a product suggests that it is best for treating Varroa mites. What works one year may not work the next. Out of date products are less effective. Researchers use a term "economic threshold level" to determine how many mites a hive can have before they do damage to the extent the hive will die.

A good general idea of how many mites a hive can tolerate is found in "Back Yard Beekeeper" by Kim Flottum. Personally, I think every hive has some Varroa mite population and Kim's Guidelines are based upon the size of colony in the hive.

To treat or not treat!

Treating a hive: Follow all directions on the product to the "T". Some treatment in my opinion is better than not to treat.

I include treating a hive using non chemical methods as "good beekeeping practice".

Not Treating: It is a decision that can be more expensive than treating a hive. All bees are struggling to survive. **At the current rate, the over winter survival rate of those treating for Varroa are higher than those doing nothing. The old concept of just letting the bees do their thing generally results in losses greater than 70%. The feral bee population has almost disappeared.**

Every beekeeper should try to reduce Varroa mite populations in their bee hives. The physical damage mites do to honey bees has consequences.

- Mites promote the spread of other diseases.
- The life span of honey bees is reduced.
- The productivity of the honey bee is reduced.
- The survival of the colony is at risk!

One other thought: **Mite Bombs**

A hive of bees with a large population of mites is a "Mite Bomb!"

The Entomological Society of America researchers have found that honey bee behavior has contributed to the spread of Varroa mites. Mites have "co-opted" these behaviors to their own advantage.

- The varroa mite is not highly mobile – It doesn't have wings such as the Small Hive Beetles.

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-The Varroa mites "hitchhike" as seen in the 2nd photo on page 1.

-Honey bees fly from hives – carrying mites.

-Honey bees rob and drift from hives.

-Honey bees are transported from place to place – often by beekeepers but swarming is a natural process as well. Keep in mind those packages of bees shipped to the Midwest in 1987. Beekeepers selling package bees and nucs can spread the mite.

-Honey bees are managed in large colony apiaries. Bee population density is a contributing factor in many urban areas. Hives located close to one another increase spread.

A beekeeper can do everything bee management requires – treat for the mites but bee hives managed by neighboring beekeepers could be mite bombs. Thus, fighting the Varroa mite is an on-going practice responsible beekeepers must do from year to year.

Find out what the mite load is in a hive of bees!

An easy way is to collect a sample of approximately 300 worker bees from the brood nest of a strong hive.



A frame of bees is held upright as shown (Check to make sure the queen is not included in your sample). A pint jar is placed below a cluster of bees. The mouth of the jar is moved upward on the face of the comb, collecting a number of worker bees. The lid is then placed on the jar to keep the bees from flying out of the jar. This process is repeated until about a half inch of bees cover the bottom of the jar.

Two basic methods are used—powder sugar is placed in a jar before the bees are shook for the sugar roll test. Alcohol is used to kill the bees and allow the collection of dead mites in an ether or alcohol test.

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The sugar roll test: The lid is placed on the jar and the jar rotated and shook until all the bees are covered with sugar. Once the jar has been shook – may take a few minutes - The bees are dumped out of the jar into a clean plastic dish pan. A plain sheet of paper will also work.

The bees covered in sugar will attempt to fly back to their hive. If the jar is shaken too hard, some bees may be damaged. However, mites can not cling to the sugar coated bees and drop onto the paper or dish pan along with the bees.



Mites can then be counted. Arrows point to some mites from this shake. Using a dish pan allows sugar to be reclaimed easier than if one is using paper.

6 mites were identified on this sheet of paper.

My personal viewpoint is one mite – is one to many. I treat both spring and late summer.

Alcohol test: Bees are collected in the jar as described above. After collected, an alcohol solution is poured into the jar. This kills the bees but recovers more mites compared to the sugar roll test. The bees float to the top of the jar and the mites settle toward the bottom.

A sample was taken from the same hive but the results were much different. (An exact count of the bees was not done).



If you look close to the bottom of this jar, you will see Varroa mites.

After removing the bees from the jar, the mites were collected by straining the alcohol thru a filter to collect the remaining mites.

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The varroa mites found using the alcohol method.

Some might say this is a huge amount and another might say not so huge.

The problem is this: This does not represent the total mite population in the hive! A single worker cell or drone cell can contain a female mother mite laying eggs. Varroa mites prefer drone cells to worker cells because the reproduction time in drone cells is longer.



Not only does the mother Varroa mite live to crawl from the cell after the new bee emerges, she is joined by mated female daughters. It is interesting to me that the first egg laid by the Varroa mite mother is a male. He mates with his sisters. There may be as many as 5 varroa on a worker pupae and 6 on a drone pupae.

Other indications that mites have done damage within the hive:



Most common will be bees with deformed wings.

But an examination of a worker cell on a frame from a dead out hive may also indicate mite damage from the feces of mites. The feces look like salt grains.

I cannot cover all the treatments available for Varroa mites. What follows are a few of the more popular choices available.

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Because Varroa mite populations are mobile, I would suggest treating all hives in a bee yard if even one hive shows signs of Varroa mite infestation.

I need to mention that some of these chemicals are fumigants and will drive bees out of a hive in very hot weather! Prices were taken from a web check for small quantities - There are discounts available if bought in larger quantities from bee suppliers.

Apivar - approximate cost \$3.00 per strip – 2 strips per treatment

The Apivar strip is a combination of two components:

- Amitraz is a sub-lethal miticide that excites and paralyzes Varroa mites. Varroa cannot keep holding on to the bees and falls to the bottom of the hive, leading to their starvation.
- Plastic polymer strip: specially designed to ensure a regular release of amitraz on the surface of the strip after its placement in the hive. The polymer strip was selected for its ability to release the active ingredient over a minimum six-week period. It was also selected for its inability to bend or move, therefore ensuring that it stays in place.
- Cannot be used while honey supers are on the hive.
- Treatment period – recommended 42 day min to 56 days max.
- Applied as ridged strips 2 per hive body (6-10 frames).
- Usually applied in spring and fall before and after honey is harvested.

Apivar is registered but does not have Section 2B approval in all states. It is advised that you check with State Agriculture Dept. to find out if it is legal to use in your state.

Apistan ® Strips - Approximate cost \$3.67 per strip – 1 strip for every 5 frames is recommended.

Apistan is also a strip with the active ingredient tau fluvalinate.

- Tau fluvalinate is an ectoparasiticide of the cyanopyrethroid class of compounds which act by causing rapid depolarisation of the axonal membranes. In common words, the mite that comes into contact with the strip is subjected to molecules of the chemical which are lethal.
- Strips are placed between frames so honey bees can come into contact with both sides of the strip.
- The shelf life of this product is listed as 3 years.

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-Special precautions for the person using this product – Avoid contact with skin, mouth, and eyes. Wear gloves when handling strips. Follow the general rule of washing hands thoroughly after handling the strips.

-Cannot be used while honey supers are on the hive.

-Treatment period – recommended 42 day min to 56 days max.

-Applied as ridged strips 2 per hive body (6-10 frames)

-Usually applied in spring and fall before and after honey is harvested.

Formic Pro & Mite-Away Quick Strips

Both of these products use formic acid. Formic acid has been used by beekeepers as a 60% solution for a number of years, illegally. Only two products are legal applications in bee hives.

Formic Pro—Sold as a pack with two pads called a dose. Using the same source for price I found that a 10 pack treatment package sells for \$71.95. Each pack is for a single hive. Thus, the cost may seem higher but if two strips are required for a hive (2 x the single strip cost) is about the same as a Formic Pro pack. \$7.20 per pack with two pads.

-Formic acid is the prime ingredient.

-Each dose is enclosed in a protective sealed package.

-Formic Pro is considered safe to use during honey flows and leaves no residues.

-It has a temperature range of 50 degrees F. to 85 degrees F. to be effective.

-It does kill mites incubating under cappings as well as adult mites.

-Entrances to hives must be open. Generally, the bottom board entrance of a standard hive.

-Treatment period is 14 days to 20 days. Do not use when temperatures are above 85 degrees.

-Formic acid is a fumigant - it vaporizes and at high temperatures will drive bees out of the hive or kill them if enclosed without ventilation. Screened bottom boards will reduce the effectiveness of the treatment.

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-Read the instructions on the package -- Formic acid is corrosive - don't place it even briefly on metal hive covers. It can cause skin burns - avoid breathing vapors—do not rub your eyes if handling the product. Also recommended are coveralls over a long sleeved shirt, wear long pants and wash skin with soap and water after handling.

-In my commercial beekeeping experience, I used early packaging developed by USDA as gel formulations. We had to wear respirators when working with it. Sometimes the packages developed leaks - results in dizziness and loss of control if driving a vehicle. Thus, I would advise not opening a pack to use only one of the pads. This is a product that affects breathing, skin burns, sight - if it gets in eyes, and internal issues such as vomiting and unconsciousness. At least handle it with gloves. The package even has the poison Control Center's Hotline number!

Mite-Away Quick Strips

Mite-Away quick strips are sold in several package sizes much like Formic Pro. The cost would be approximately \$5.50 per hive treatment. Read the information about Formic Acid above – to be effective the day time temperature should be in the (50 – 84 degrees F. range).

-Formic acid is the prime ingredient.

-Quick strips are formic acid polysaccharide gel strip laid on the top bars of the bottom brood chamber.

-The gel strips are considered safe to use during honey flows and leaves no residues and company literature even indicates it can be considered an organic treatment.

-It has a temperature range of 50 degrees F. to 85 degrees F. to be effective.

-It does kill mites incubating under cappings as well as adult mites.

-Entrances to hives must be open - generally, the bottom board entrance of a standard hive.

-Treatment period is 7 days. Do not use when temperatures are above 85 degrees.

-Formic acid is a fumigant - it vaporizes and at high temperatures will drive bees out of the hive or kill them if enclosed without ventilation. Screened bottom boards will reduce the effectiveness of the treatment.

-Wear gloves when handling strips. Put any unused strips in a zip lock bag!

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Due to the length of this issue, I will continue with thymol, hop beta acid resins (Hop Guard), Checkmite +, and Oxalic acid next week.

Illegal uses are wide spread on the internet. They represent usually individuals with a large number of colonies and contribute in my opinion-- to why mites are so hard to kill. Mites surviving higher doses of chemicals lead to highly resistant Varroa mite populations. If you use a product and it does not give the results you expect – don't blame the product. The mites that do not die are producing the next generation of mites that will require more research and new products to control them.

Beekeepers may live with Varroa mites for a long time before resistant bees are found.

Attempts to do this with the Russian stock of bees brought to the USDA Lab in Louisiana was a start. Requeening hives every year with resistant stock may be one solution for a beekeeper but if other beekeepers do nothing, no solution is on the horizon. This mite is going to be around for awhile!