



Upcoming Events

Monthly Meeting — Monday, October 5th

Virtual meeting using ZOOM

- All members are invited to the meeting
- When: October 5th, 2020 06:45 PM Eastern Time (US and Canada)
- Please register in advance for this meeting:

<https://zoom.us/meeting/register/tJMqd-uoqD0oE9P--ciAlwkgwN9yhGilkqw>

- After registering for the meeting, you will receive a confirmation email containing information needed to join the meeting.

MONTHLY
MEETING

Be Connected. Be Heard. Be Informed.

Message from the President

Hello SRVBA members!

I want to start by saying that the executive officers has established a ZOOM account to hold virtual meetings on our computers. The club obtained a year's subscription to ZOOM. We selected the Pro Account, which allows 100 participants and unlimited air-time. Hopefully, we will be able to meet and have some outside speakers to give presentations with PowerPoint capabilities.

Vice-President, Dr. Mike Stone, will be hosting the account and we are gearing up for our first meeting on Monday, **October 5th 2020 at 7:00pm**. We will be sending out emails to all the club members explaining the process of logging on to the meeting. You will need to download the free ZOOM App to participate in virtual meetings if you want full audio and video capability. Or, if you don't have a computer, you can call-in using a phone number that will be provided on the invite email. For those members calling-in, you will be limited to an audio-only connection.

The October 5th meeting will be the trial run for all of us to participate and work out any problems which arise and to answer any bee questions which the club members have.

I think this ZOOM account will be a great way to stay in touch with each other until things settle down with Covid-19 precautions. So please check your email accounts for further upcoming information.

Message from the President (continued)

OSBA INFORMATION

On Saturday, November 7th, OSBA will be hosting their Annual Meeting/Fall Conference. This event will be presented by virtual (ZOOM) this year, with some outstanding speakers and a great schedule of events. Elections of officers as well as an update to the Constitution will also be voted on. The cost of the annual meeting/conference is **FREE** this year.

Correction: (I incorrectly noted in the September SRVBA newsletter that the Annual Meeting/ Fall Conference was being held on November 4th. This was an inaccurate date. The meeting/conference is being held on Saturday, NOVEMBER 7th. I apologize for communicating the wrong date)*****

I'll provide Annual Meeting/Fall Conference registration information in the November SRVBA newsletter. The meeting/conference will start with registration from 8:00-9:00am and we will then have 45 minute speakers, 5 minute commercials between speakers, "How to" clips, voting for officers and amended Constitution language, and President and Treasurer reports. The closing will be around 4:30 pm. What's going to be nice is that you can sign in anytime of the day, if you're only interested in one speaker, or sign in for a part of it, sign out and be able to sign back in later in the day.

Below is a list of speakers:

- Jerry Hayes
- Dr. Hongmei Li-Byarlay
- Reed Johnson
- Dr. Jerry Bromenshenk
- Barb Bloetscher
- Rockford Trees
- Ian Stepler

OTHER INFORMATION

During the month of November, we usually label our filled 6oz honeybears to give to the local food pantries. This has always been a great idea to give to the area communities. Last year, we used up the six ounce plastic bears we had in our inventory. We are now told from the supplier that they don't know when they will have plastic bears in their inventory, "Another Covid issue".

I'm really trying to keep everyone informed on any news we have on the club. This has really been a rough year for all of us.

Stay safe and enjoy the bee yard!

Tom Rathbun

SRVBA President

Message from the President (continued)

IN THE HIVE

I want to talk about feeding our colonies. By the end of October we should've had a frost by then, and the bees should start to cluster up and stop foraging, for the most part, until spring. We as Beekeepers need to check the food stores of the bees to make sure they have plenty of food for the winter months ahead. I feel in Northern Ohio they should have at least 100 pounds of honey as a food store. Honey is the main source of food for your Honeybees, so I really hope nobody got greedy and took more honey than they should've during the honey harvest.



Tom Rathbun
President SRVBA

Food Stores for the Bees

Sugar Boards

Something that I make up each year is what is called a "Sugar Board."

A sugar board is 2 inches high by the same dimension of your top hive body (10 frame or 8 frame box or nuc box) with $\frac{1}{2}$ inch or $\frac{1}{4}$ inch hardware cloth (fencing) stapled to the bottom,(or use a plastic queen excluder) with a $\frac{5}{8}$ inch hole drilled in the face of this. The inside of this box is then filled with raw cane sugar.

How the sugar is mixed is that I take approximately 10-20 pounds of sugar and dump it in a very large bowl and add approximately 1 $\frac{1}{2}$ ounce of cold water per pound and mix the sugar to a wet sand consistency by hand (don't make the sugar too wet, it will never set up).

I have also mixed in a tablespoon of Honey Bee Healthy (HBH) but you don't need to. I then place wax paper to cover the bottom of your sugar board and I then place a six inch long 2x4 flat side down up against the $\frac{5}{8}$ in hole. The sugar is then packed around the 2x4 leveling it at the top of the side of the sugar board. After 24 hours of dry time I then lift out the 2x4 and cut out the exposed wax paper, this allows the bees easy access to the sugar. It's really important not to put these over your bees until after thanksgiving. If they are put on too early, and we have some warm days they will promote robbing and yellow jacket invasion. So I always wait until after thanksgiving.

Message from the President (continued)

IN THE HIVE

Sugar Boards (continued)

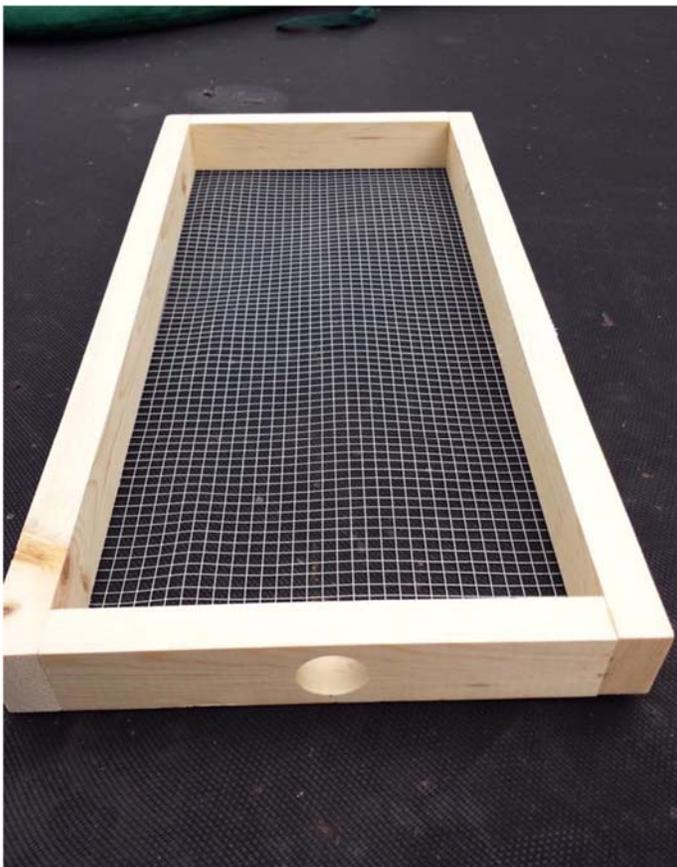
These sugar boards are only a cheap insurance policy for food for your bees. If they eat up their honey stores they will have a food source right above them to get. I've mentioned before, we as humans can survive on a Snickers candy bar, it's not healthy to do so but it will keep us going. Same with the Honeybees, sugar isn't the best food for the Honeybee but it will keep them going if needed.

In May of the following spring, if you have sugar left in the boards, what I do is break it up, and dilute it in hot water and feed it to the bees as sugar syrup.

The sugar boards can also hold fondant, or a winter patty or early spring protein patty. They also help with wicking the moisture in the hive.

That $\frac{5}{8}$ inch hole in the front I place a small square of number 8 hardware cloth over the hole until any threat of robbing or yellow jackets are gone, then later remove it to provide another exit or entrance.

https://youtu.be/E_WLCc21-Hk



Message from the President (continued)

IN THE HIVE

Winter Patties

A winter patty is a low protein, high carbohydrate food source for the colony. These usually get placed over the hive in the late fall through January.

After February I will start feeding a higher protein patty because your queen will start gearing up on her laying in February.

Winter Patty (Crabby Patty)

- 4 lbs. sugar
- ½ lb. AP23 pollen substitute (available from Dadant)
- ½ lb. HFCS (corn syrup) OR water, enough to make it sticky
- Mix all together well. You can adjust moisture as needed to make a soft patty but not so soft it oozes between frames.

**Note: This mixture is pretty dry. I used 1/2 lb corn syrup but then added almost a cup more water to make it “rollable”.

Put between 2 sheets of wax paper and roll to flatten.

Place right on top of frames or in a sugar board shim.

Protein Patties

There is a huge difference between Winter and the Protein patties. The Protein Patty uses a much higher percentage of protein. The bees will feed the young larva the higher protein. But it's important if you start feeding the higher protein patty that you continue. If you don't and stop feeding the higher protein patty any new bees being developed will then starve if there isn't any protein to be had.

Below is a recipe I use. When mixing I want a cookie dough consistency. Place a hard-ball size of patty between two sheets of wax paper and roll it out with a rolling pin about ¼ inch thick. I then place 4-5 patties in a zip lock bag and keep them in the freezer. I'll use them starting in February and I just place them on the sugar board.

Message from the President (continued)

IN THE HIVE

Protein Patties (continued)

Spring/Early Summer Patty

- 5 lbs. sugar
- 1 1/3 cups cold water
- 1 1/3 cups apple cider vinegar
- 3 oz. olive oil
- 1/4 tsp. electrolytes & vitamins
- 1 tsp. ascorbic acid (Fruit Fresh)
- 2 tsp. HBH (Honey Bee Healthy)

Mix above together and then add:

- 4 cups Ultra Bee (Mann lake)
- 4 cups brewers yeast

Mix all together well. You can adjust moisture as needed to make a soft patty but not so soft that it oozes between frames.

Put between 2 sheets of wax paper and roll to flatten.

Place right on top of frames or in a sugar board shim.

If you have any questions on sugarboards or winter/and spring pollen patties please contact me.

Please remember that pollen patties are very beneficial to your bee colony, but the small hive beetles also enjoy them. If your bees aren't eating the patty, please check to make sure hive beetles aren't eating it.

Tom Rathbun

SRVBA President

Honey Bee Nutrition Might be Key to Healthy Populations

By Gabe Saldana, Communications Manager of the Texas A&M AgriLife Research and Extension Center of Dallas, Texas. September 9, 2020

AgriLife Research, USDA project looks to honey bee diets to reduce population losses

<https://agrifiletoday.tamu.edu/2020/09/09/honey-bee-nutrition-might-be-key-to-healthy-populations>



A newly funded [Texas A&M AgriLife Research](#) project seeks to slow population losses among more than 2.6 million managed honey bee colonies in the U.S.

Honey bees provide pollination services that uphold \$16 billion in U.S. agricultural crops. However, managed colonies have seen annual declines. Those include a 40% decline as recently as 2018-2019, said Juliana Rangel, Ph.D, AgriLife Research honey bee scientist in the [Department of Entomology](#), Bryan-College Station.

The declines are attributed to several general issues, including poor nutrition and susceptibility to pathogens and diseases, said Pierre Lau, AgriLife Research graduate assistant, and a [Texas A&M University](#) doctoral candidate in Rangel's laboratory.

Lau is also the project leader. To prevent future managed colony losses, his team will look for ways to strengthen bee colony immunity to disease pathogens by feeding them more nutritious diets.

The project is supported by a [U.S. Department of Agriculture pre-doctoral fellowship](#) titled "Optimizing Macronutrient Contents in the Honeybee Diet as a Mechanism for Pathogen Defense."

The research team includes Lau, Texas A&M graduate student Alexandria Payne, undergraduate students Cora Garcia and Jordan Gomez, along with Rangel. Spencer Behmer, Ph.D., AgriLife Research professor in the Texas A&M department of entomology, is also part of the team, as is his postdoctoral research **associate Pierre Lesne, Ph.D.**

Honey Bee Nutrition Might be Key to Healthy Populations

(continued)

Focusing on macronutrients

Researchers will place heavy focus on macronutrients, which are those nutrients in the highest demand by a healthy body for proper metabolism and physiology, Lau said.

His team's work will be to first understand the varying amounts of proteins and lipids, or macronutrient ratios, present in bees' diets. They will work to optimize an ideal diet with varying ratios of macronutrients, then they will observe physiological benefits to bees that receive increasingly nutritious dietary mixes.

Commercial honey bee colonies succumb especially to *Nosema ceranae* and deformed wing virus. *Nosema ceranae*, a fungal pathogen, causes a fatal intestinal disease, while deformed wing virus causes death due to developmental complications in heavily infected adults, particularly due to crumpled wings.

Besides pathogens and diseases, Lau said, honey bee declines within agroecosystems — which describe most agricultural crop scenarios — can also come from parasitization, poor queen health, pesticide exposure and landscape fragmentation.

As such, in addition to immunity, the researchers will investigate how nutritional changes affect expression of genes that mediate proper honey bee development and growth.

Honey bee nutrition likely lacking

“We know that pollen is the most important source of nourishment for bees, but as a field of research, we have a poor understanding of all the macronutrients that make up pollen,” Lau said.

At the same time, Lau and collaborators, in an unpublished study, were able to determine the nutritional content of certain pollens. In the same study, they noted that honey bees preferred pollen with a lower ratio of protein to lipids, or P:L ratio, than what would be currently available in the beekeeping industry. Moreover, Lau said, existing research shows that organisms naturally seek out pathogen-fighting nutrients in their surroundings.

“Does this mean that honey bees can alter their macronutrient intake to self-medicate and increase their tolerance to a pathogen, given the availability?” Lau said. “It could also be that the role of lipids is more significant than we understand.”

Additionally, Rangel said, honey bees need certain plants in the vicinity to help them with physiological processes. Those include metabolizing certain macro and micronutrients. What if those plants are not available in a crop system?

“We know that honey bees need variety in their diet,” Rangel said. “But, to what extent are certain nutrients required, or even sought after, by the bees for proper nourishment?”

“Can we introduce supplemental macronutrients that allow honey bees to self-medicate in the presence of pathogen infections?” Lau added. “This will be our focus for the next two years.”

Read more about the [Texas A&M Honey Bee Research Program online](#), and follow Rangel's lab on [Facebook](#).

Classifieds

Cherry City Honey – Tami & Gary Wylie

Hive Woodenware

Cherry City Honey stocks and sells new bee hive equipment. Due to our location in the Clyde-Bellevue area, it's approximately a one hour drive to the nearest bee equipment supply store. This drive is inconvenient, time consuming and expensive.

Also, online orders from distant suppliers often require purchase of larger quantities to obtain fair pricing and shipping/freight rates for new equipment are expensive.

We stock bee equipment you'll most likely need. Our bee hive boxes and equipment is of the highest quality and comes already assembled and ready for you to paint before use. The equipment is available for pick-up only.

We don't ship because the high shipping rates makes new bee equipment unreasonably costly. We can arrange for local delivery in the Bellevue-Clyde area. We accept cash or credit cards for payment.

Please consider us for your bee hive equipment needs.