



# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019

At the [Edmonton and District Beekeepers Association](#) annual general meeting on October 24<sup>th</sup>, the featured speaker: **Dr. Renata Borba**, the recently appointed Lead for the Alberta Tech team, began her presentation.

What follows is a summary of the main points of her talk which was aided by power point slides.

Resin in rough shapes helps with bee's self-medication. Hence some beekeepers deliberately have interior walls of boxes with many rough grooves, some made from plastic. The propolis envelope around a hive's perimeter, particularly for closing up holes, provides constitutive effects. Contact with **propolis helps a bee's immune system** and fights pathogens more effectively. The slides also pinpointed pathogens resulting in Deformed Wing Virus (DWV), Black Queen Virus (BQCV), Sac Brood Virus (SBV), Varroa resistance and Nozema.

### **Alberta's Bee Tech Program**

**A grant for \$110,000** has been received to fund tech team research. In Alberta, there are currently 300,000 hives and 1,800 beekeepers. The goal of the tech team is to improve honey bee health and establish a disease and pest management program. The main problems affecting honey bee health in Alberta are severe weather, starvation, weak colonies in fall, poor quality queens, and Nosema.

The tech team will follow a three prong approach.

**1 Education activities:** each year as the severity of certain problems change year by year. Hence the need for tech team technicians to be trained each year.

**2 Research:** a queen bee breeding program will help select healthy stocks.

**3 Management:** hygienic behaviour testing.

The tech team will be part of the Alberta Beekeeper Commission (ABC). **50% of the samples will be paid by beekeepers.** Ten colonies in each yard will be checked in spring and fall: the same ten colonies in the same yards. The cost of checking ten colonies will be \$300, of which the beekeeper will pay half. In the fall, the National Bee Diagnostic Centre (NBDC) in Beaverlodge will also sample. Two of the NBDC projects will focus on queen bee health and nutrition based research. Two research assistants will be hired for that.

Contrary to what we heard in Leduc last February, **the IPM workshop established by Dr. Medhat Nasr over ten years ago will continue for the next five years.** The next workshop will be on February 4<sup>th</sup> and 5<sup>th</sup> next year with an additional day on February 3<sup>rd</sup> to focus on **queen raising techniques** research towards creating a breeders club. In 2021 a larger IPM will be held to involve more western provinces. **A professor in bee genetics** will begin employment at the U. of A. next June.

*Submitted by Malcolm Connell*



**The purpose of the United Beekeepers of Alberta Council is to help all beekeepers, both small producers and large producers.**

**Annual membership is just \$40** (from January 1<sup>st</sup> to December 31<sup>st</sup>). Please send fees to the Treasurer Jean Francois Cianci at his address: 3028 Conrad Drive, NW, Calgary T2L 1B4. His email is: [jfcianci@hotmail.com](mailto:jfcianci@hotmail.com). Or sign-up at [unitedbeekeepers.org](http://unitedbeekeepers.org).



### **ARE YOUR VARROA MITE TREATMENTS WORKING?**

By [Samantha Muirhead](#), Acting Provincial Apiculturist

Before you answer this question, please ask yourself: “When was the last time I monitored my colonies for Varroa mites? What monitoring technique did I use? Did I monitor before and after treatment to see if it was effective?”

During the bee season, the Alberta Agriculture Apiculture inspectors were surprised by the large number of beekeepers who were not monitoring their colonies to check their varroa levels. These beekeepers were putting in treatments assuming they were working. The inspectors also found that in some cases varroa mite treatments were not being properly applied. They noticed too many strips in the colony, not enough strips in the colony, all the strips in one box of a double brood chamber hive, strips placed too far away from the cluster, as well as strips being left in the colony over the winter. Improper use or application of miticides will not reduce your varroa mite population down to an acceptable level and will accelerate the rate at which varroa mites develop resistance to the applied synthetic miticides. The most important step you can take as a beekeeper to prolong the use of synthetic miticides such as Apivar is to always follow the label.

Please be aware that uncapping brood to see if there are mites present is NOT an effective way of monitoring and does not give you a realistic picture of the varroa levels in your colony. The recommended way to effectively monitor your colonies is with sticky boards/traps or with a screened shaker jar or wash using either an

alcohol product (ethanol or winter windshield washer fluid) or icing sugar. Please note that if you use icing sugar this can give you a good idea of your levels but is not as accurate as using the alcohol wash. For more information, please download the Bee Health App from the App store or Google play to get directions on how to monitor for varroa mites using the sticky board or the mite shake method.

This season, Alberta Agriculture and Forestry Apiculture inspectors conducted resistance tests throughout Alberta to determine the efficacy of Apivar, Bayvarol and Apistan. Based on these tests we found that Apistan and Bayvarol results were variable and in most cases the two miticides were ineffective at reducing varroa mite populations in colonies to an acceptable level. Therefore, in Alberta the only effective synthetic miticide beekeepers have available to them is Apivar. This will change. Eventually Apivar will no longer be an effective option for beekeepers. In 2007-2008 Apistan and Checkmite failed to adequately control varroa mites and Alberta beekeepers lost 44% of their honeybee colonies. Resistance did not suddenly appear in one season, it happened over time. The importance of monitoring for varroa mites in your colonies cannot be understated. Monitoring will inform you when your miticide treatment is not effective at controlling your mite population. This will give you time to reapply or change your miticide treatment altogether before irreversible damage is done to your colonies. There are many other options to control varroa in your hives such as formic and oxalic acid. We recommend that you start to familiarize yourself with these options and incorporate them into your management practices.



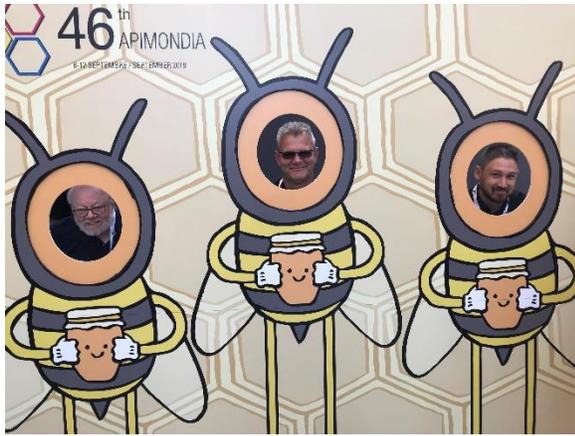
# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019

If you suspect you have resistance or if you have varroa mites, please let us know by emailing <mailto:bee@gov.ab.ca>. Alberta Agriculture Apiculture inspectors will come out to your operation and test your colonies to ensure Apivar is still effective within Alberta. We can also discuss alternative treatment options with you and how you can effectively use them to manage varroa mite populations in your operation.



### APIMONDIA, MONTREAL SEPT. 2019



### Presentations in Montreal

by Ron Miksha, Calgary

First, congratulations to the organizers of the [biggest bee event on Earth](#). The Canadians put together a brilliant showcase and welcomed thousands from around the world. It was one big huge, flawlessly-arranged bee party!

At Apimondia, I was both spectator and participant. I gave a presentation about the average distance bees fly while foraging. The full title was, *“Foraging Distances of*

*Commercially-deployed Bees: a Meta-Analysis.”* After reviewing several hundred

papers and doing the appropriate statistics, I found that there is no single, simple answer – foraging distance is highly landscape-dependent. This isn’t surprising, but it’s important. Whether you are a farmer trying to figure out where to place rental bees for efficient, economical pollination or a land manager trying to reduce the effects of high-density non-native bees, you need to know where the bees will be flying. The presentation included foraging distances, which I’ll write about in this newsletter another day.

During Apimondia, there were 269 oral presentations. I found it hard to attend all the talks I wanted to because so much was happening at the conference.

On Apimondia’s second day, however, I moderated a session on *“Diversifying income sources for beekeepers”* so I was forced to stay in the hall, introduce speakers, field questions from the audience, and (crucially) yank microphones from speakers’ hands when their time was up. Since I had to sit there anyway, I decided to use my time wisely and listen to the speakers. I’m glad that I did. I learned a lot. Presentations are the heart of a big bee conference. Some are about bee science – genetics, especially, but diseases and nutrition were covered. Others were about practical beekeeping, health products from the hive, and beekeeping in developing countries. I can’t do fair summaries of anyone’s talks, so I’m not going to try. Here, however, is a list of the titles of some of the talks which I attended.

I’m listing some of the talks so that you can see the variety of subjects covered:

- Beekeeping, women and sustainable development



# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019

- Approaches to targeting the poorest people through beekeeping in Amhara, Ethiopia
- Royal jelly has beneficial effects on lipid profile, satiety, inflammation and antioxidant capacity in asymptomatic overweight adults
- Colombian propolis with biological potential: antitumor and immunomodulatory action, in vitro assay in osteosarcoma cells
- The Growth of a Prairie Operation: 35 Years of Growth and Taking Advantage of New Opportunities
- Meeting the Ontario Market: Honey Packing and Queen Production
- Dynamics of queen demand and supply in Canada
- Modeling the economic impact of Varroa destructor on Australian beekeepers
- Genetic selection of the honeybee (*Apis mellifera* L.) in a northern climate
- Building your Brand: The Importance of Integrity
- Conservation and design of forage habitat for bees, the challenge of “partial habitats”
- Colony health in intensified agricultural landscapes: impact of forage availability on honey bee hives in heavily cultivated areas

I missed over 200 good presentations during my four days at the conference. Next time, if I go to Apimondia in Russia, I'll attend more presentations. My own talk was on Thursday afternoon. I had to catch a flight and couldn't stay around after it. But on my trip back to Calgary, I read dozens of abstracts of talks, [which you can find at this link](#).

### Not so Pure Honey at Apimondia

by Ron Miksha, Calgary

Wednesday at Apimondia was the day that I heard about the “big honey scandal”. Not really a scandal, but beekeepers were buzzing pretty hard about this.

An important part of Apimondia is the [World Beekeeping Awards](#) program. Gadgets, books, and honey are judged and awarded appropriately.

Unfortunately, the honey competition didn't go sweetly this year. The honey entries had been sent to a big, reputable, German lab for adulteration and contamination testing. Forty percent of honey entries failed the tests. I don't know which tests were conducted, but this was bad news for the honey industry and for the competitors. If the best beekeepers in the world can't produce perfect honey, who can?

Perhaps the tests were conducted at one part per trillion, with zero tolerance for herbicides, pesticides, GMOs, or other materials. If zero-tolerance was the limit, then I'm not surprised. Zero tolerance would keep us from eating much of anything. I don't know the maximum allowable limits used. But there were a lot of angry voices coming from the judged entry displays where irate contestants bludgeoned



Apimondia will be in Russia in 2021 (Photo by Liz Goldie)



## Newsletter 8 – Nov. 2019

the innocent volunteers who guarded the honey. Not a pretty image.

I don't have much information. Mostly, I heard rumours floating around about methodology. [On Bee-L Listserver, a comment was posted](#) that one contestant filled two entries from the same vat and received two disqualifications – for two different reasons. I don't know if that actually happened, but it was reported. Other beekeepers complained that they didn't have easy access to the laboratory results – they were only allowed a quick look at a computer screen and not given a printed copy. If true, this is certainly disappointing and will make it hard to prevent failures next time.

**Darker honey suffered the most rejections,** which surprised me. I usually think of the dark stuff as more wholesome – sometimes it originates in organic apiaries. I found this incident stunning and I worry about future competitions. Yes, honey has to be pure. But I wonder about the way it was tested, the contamination sources, and the level of tolerance. All of this needs to be transparent. I also wonder how many people will want to enter honey into the next Apimondia World Beekeeping Awards competition.



**Out of these 15 honey entries, 12 had tags that read, “failed laboratory examination and cannot be judged further”.**



**Unfortunately, this sign was on dozens of honey entries. (Photos: Liz Goldie)**

## Poster Sessions at Apimondia

by Ron Miksha, Calgary

Each day at Apimondia, I arose early and headed up to the big conference centre. I was staying about 2 kilometres west of the venue in downtown Montreal, but I'd been told to arrive before 8:30 on Tuesday to put up a poster that Dr. Lawrence Harder and I created about urban beekeeper socio-economic demographics. I was surprised that our poster was given the best spot out of the 145 posters that were displayed on Tuesday – it was number one in line, next to the doors that led into conference talks.

Our subject was “*Who becomes an urban beekeeper?*” We used considerable data and applied statistics to come to a summary. We looked at neighbourhoods across Calgary and compared the number of apiaries in each neighbourhood to each community's demographics (age, education, unemployment, home value, hospital visits, immigration, tendency to change houses, etc.). This helped us figure out that urban beekeepers are mostly older, well-off, well-educated folks.



# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019



### Poster: Who Becomes an Urban Beekeeper?

I met a young fellow named Matthew Polinsky who researched an interesting topic: *“Beekeeping in Canada: Trends of self-sufficiency and participation in the global honey bee trade”*. His poster looked at how Canada is dealing with raising its own queens and bees instead of importing them in the spring from warmer countries. That was a politically hot potato back when I was in my twenties and raising queens in Florida to boost my Saskatchewan hives. In those days, I used Canadian mother stock to produce queens in the south. It went well for me until the government chose to keep mites out by stopping all US bees. Mites soon showed up anyway.

Closing the border caused the huge drop in beekeeping success in the graph on Matthew’s poster where the bee population, honey production, and pollination services crashed in 1987 and didn’t recover for about thirty years. You may see that poster, and others, [at this link](#).

Matthew found that empowering self-sufficiency and enhancing bio-security have had

some long-term benefits. Today, many Canadians raise their own queens, winter losses are only around 25%, and the number of managed honey bee hives has recovered since ’87 and recently passed to even higher numbers. Only a bit over half of the queens that head Canadian colonies are now bred abroad (mostly in New Zealand, Chile, and Hawaii) while just over a hundred-thousand packages are imported from the south Pacific, which is down from before the border was closed and the bees came from our own continent. It will be interesting to see how this goes over the next thirty years.

**Poster topics** were amazingly diverse. Among the rush of time and the squeeze of people, I only read about ten posters, but I photographed twice as many for reading later. Some were highly technical, others, not so much. There was considerable artistic license on display. Including a hand-drawn montage. I have a story to tell about that poster. During the conference, a friend told me that he had considered doing a poster but was a little intimidated. I said, “Don’t be. Anything you do will look better than one that is up right now. Come on, I’ll show you.” So, I led him to a hand-drawn poster assembled from cut-and-taped papers. I began to encourage my friend, “See, it doesn’t have to be good. Just glue together some paper and drawn something.” I continued like this until a voice called out from a bench behind us. “Hey! That’s my poster!” So, I explained to her, without apologizing, that she had submitted something which my friend could easily surpass. She laughed and said that I made her day. She said that my remarks confirmed that it was worth it for her to have entered her poster. Her poster’s point, which I obviously missed, is that “Creativity and Diversification...Inspires” as her title says. I guess it really does. Her poster inspired my friend to enter a poster at the next conference.



# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019

Before moving on to the more scientific posters, I'll describe another one that I found unusual. I checked the author's website, [Anarchy Apiaries](#), to learn more, but remained just as mystified. Guess I'm getting old. [On that website](#), I discovered these words,

*"Working with Bees is all about overcoming fear. The Hive is love incarnate. The Hive is the window to our new world. It takes patience and emotional energy to dismantle power dynamics & more awkward than a newborn goat."*

OK. Moving on.

My friend, professor, [podcaster](#), Calgary-born, Andony Melathopoulos, along with Matthew Bucy, entered an important poster. It looks a bit unusual. As Andony explained, he hadn't read the poster entry requirements carefully and made the poster too wide. It didn't fit in its assigned spot. Some careful pruning and taping made it right, transforming it into tall and skinny. I think that Andony planned this all along, getting funky to draw attention to the message: the labels might be wrong on those cans of poisons. This is a big deal. In the USA, they say that **"the label is the law."** but what happens when the label isn't correct?



**Closing ceremonies – over 5000 registered.**

## EASY SCIENCE

It's never too late to learn more about bees and beekeeping. In our newsletter, we mentioned several scientists and research projects. To learn more about these people and their work, you can check out the following:

Renata Borba recently presented on the 'healthy hive envelope' at EDDBA. Here's [a 40-minute video](#) describing the **hive benefits of propolis** and Renata's research.

### **Are your varroa mite treatments working?**

Further to Samantha Muirhead's excellent report, we find other research showing that meds are losing their ability to fight mites. See more [here](#) and in [this paper](#) co-authored by Medhat Nasr in 2013. There is also [this 2017 paper](#) from the Atlantic Tech Transfer Team down in the Maritimes.

**Honey contamination**, especially from farm chemicals, has been in the news for a while, as you can see in [this 2017 Guardian article](#). This will be a long-term problem for beekeepers. Here is [a quasi-science piece](#) that shows some of the risks.

We saw from the poster by Melathopoulos and Bucy at Apimondia that **pesticide labels** might be wrong. [Here's the Environmental Protection Agency \(EPA\) statement](#) that "The label is the law."

Also in this newsletter, we mentioned our **May 2019 Queen Day**. It was so well attended, and had such nice feedback, that we want to repeat the program in 2020. Meanwhile, you might spent the winter months catching up on your queen bee knowledge with [this superb reference guide for queen breeders](#). It was prepared in 2018 by Canadian scientists.



# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019

### ASSOCIATION UPDATES

#### Edmonton and District Beekeeping Association

##### (EDBA) 2019 – President's Report

This year the weather had some influence in our beehives in our Central Alberta region. It all started in February where we had many days in which it was bitterly cold. I guess this was nature's way of cleansing the weak hives and the hives low on food. Rolling into the middle to the end of March the temperatures have been getting to the point of shoveling out the hives and the season slowing moving forward. In my area we noticed a strong spring with nectar sources and good weather. By the time we got into June we entered into the "rainy season". With the higher than normal amounts of rain the bees have been spending more time inside the hives. With this our swarm catchers and anyone who wanted a swarm hive were blessed by the swarm gods. Throughout July I was getting an average of 10 plus calls/day of new swarms on top of all the other calls to the swarm catchers that were sent out. A lot of us found out that with detailed hive inspections every 7 to 11 days it kept the swarms from not happening. The Beekeepers that didn't keep their hives in check shared their bees with the rest of the beekeeping community. With the rainy season extending into late August some of the beekeepers have noticed a drop in honey production. For myself, even if I have a lower volume honey, as long as I have strong and disease free bee's going into winter, I am happy.

Our Bee meetings are usually on the 3rd Thursday of the month. The location changes depending on what part of the season we are in. All the meetings have been well attended

and we usually have between 1 and 2 featured speakers. There has been many memorable meeting this year. From Starting in spring we met at the Provincial Apiculturists office and we discussed winter losses and the suggested spring treatments. We had a couple of fun field trips this year. We went to Mike Dejong's commercial bee operation in May and had a detailed tour. A very impressive operation. Another field trip was to one of my bee yards in Sturgeon County in August. We had Apiculture Research Scientist from the Alberta Government, Rassol Bahreini out to discuss fall hive testing and treatments and towards the end a hands-on portion (Testing, feeding the bees, applying pollen patties...We overviewed all the different ways of testing the bees and then the appropriate treatments. September we had multiple speakers on different ways of wrapping and preparing the hives for winter...A fun meeting that we have every year is our Annual BBQ. It was held at my residence in Sturgeon County. The thought of roasting meat over the open fire and sampling everyone's favorite dish that they brought was just amazing! This was one day where the rained stopped and we had a sunny late afternoon...I could keep going on but the best thing would be would to come out and join us at one of our future meetings.

Looking forward: Our next meeting is on Thursday, Oct. 24 which is our AGM and we will be electing our new executive and listening to our featured speaker. Our last meeting of this year will be on the evening of Nov. 5 at West Edmonton Mall. Our featured speaker will be Dr. Meghan Milbrath. Have a great rest of 2019.

***Craig Toth (EDBA President)***



# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019

### Calgary and District Beekeepers Association

The 2019 beekeeping season has almost come to an end and by the time you are reading this, most of Alberta’s hives will be wrapped and ready for winter. This year was another busy year for [Calgary and District Beekeepers](#) (CDBA) from the January Potluck and Honey Competition to the Summer BBQ which was the best-attended in recent memory.

Our community outreach kicked off in the spring with exhibits and lots of volunteers for [Aggie Days](#). The following months saw CDBA volunteers at the [Calgary Science Fair](#), [Pioneer Days](#), [Millarville Fair](#), a number of local community celebrations in communities like Banff, Mahogany and Banff Trail, and, the largest exhibit of the year, at the [Calgary Stampede](#). CDBA had over 60 volunteers to welcome an estimated 400,000 visitors over the 10 days of Stampede including Sneak a Peek (but who was counting).



Stampede Exhibition (Photos: Liz Goldie)

Our board members and other member volunteers organized the bee package order (over 260 colonies), queen distribution (over 800 queens from 4 different suppliers), the Host-A-Hive program and mentoring programs. Two of the most popular mentoring programs were the one-on-one mentoring program and the Saturday at the Hive program where experienced members host less-experienced, or curious beekeepers, to show how they keep their bees.

One appreciative beekeeper wrote, “a fantastic afternoon! Thank you so much, for all the planning and interesting agenda! It was a great day!”



Saturday at the Hive (photo by Mark Soehner)

Our teaching team conducted their standard [Beginner’s Beekeeping Course](#) in the spring and the first weekend in November. They also taught a train-the-trainer workshop at the [Tsuu T’ina Nation](#) and a course sponsored by the City of Airdrie for beekeepers wanting to apply for the beekeeping pilot program in Airdrie.

To wrap up the year, the final educational meeting will be held on [Wednesday, November 13 starting at 7 pm at the Forest Lawn Legion Hall](#). The speakers will be Arthur Telesford, multiple winner of honey competitions, who will be speaking about “How to Prepare Award-



# United Beekeepers of Alberta

## Newsletter 8 – Nov. 2019

Winning Honey” and, former club president, Ken Crebbin, who will speak on “A Year in Beekeeping”. Also, come and taste honey samples collected at Apimondia from around the world, including samples from Ethiopia, Brazilian jungles, Spain and China.

All in all, 2019 was a fantastic year because of the many club members who participated in our events and the generous volunteers who ensured all the programs are offered and managed smoothly.

***Submitted by Liz Goldie***

### **United Beekeepers of Alberta Council**

After taking a bit of a break, we have restarted the United Beekeepers of Alberta newsletter. Welcome back!

The summer started off with UBA holding a queen production event at Olds College on Mother’s Day weekend. We had the pleasure of hearing Ron Miksha from Calgary talk about how to pick a high quality queen out in a crowd and what factors go into creating great queens. He was followed by Tom Hegan, who carefully explained his method for timing nuc production with queen grafting and spring nectar flows. Tom and Suzanne Hegan produced queens, nucs, and a lot of honey for many years in the Winfield area. It doesn’t matter how often one hears him talk; something new is always learned. The afternoon was rounded out by Glyn Stephens from Koha Apiaries. He and Shevelle Stephens are producing queens for sale in the Edmonton region. From him we learned the process of producing queens.

The event was live-streamed from the UBA website so UBA members across Alberta could attend without having to drive long distances. Both the live-streaming and the event itself

were quite successful and we look forward to more events in the future.

After the event, we all got swept away in the endless rain this summer, which came at a cost to our honey yields (in the Edmonton area, anyway) as well as UBA activities. We plan to be more active again now that the seasons have changed. This year our organization grew quite a bit and we now have 70 members. If you would like to support UBA [we encourage you to buy a membership](#).

The UBA newsletter is produced by the United Beekeepers of Alberta to help beekeepers stay in touch, exchange ideas, and share stories. Please consider contributing, joining the council, and sharing this newsletter with your friends. We’re excited for what the future holds for our organization. Please go to [unitedbeekeepers.org](http://unitedbeekeepers.org) to learn more.

***Submitted by Tracey Smith***



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The editor of this newsletter is Malcolm Connell. You can volunteer to make suggestions, and send articles to [connellmjm@hotmail.com](mailto:connellmjm@hotmail.com)

The next issue is planned for February, after the Integrated Pest Management (IPM) workshop.