

NORTHERN LIGHTS BEEKEEPING

The Western Apicultural Society
and
Calgary and District Beekeepers Association
present the
Northern Lights Conference

Northern Lights Conference Program Book
Calgary, Alberta, Canada
September 29 – October 2

NORTHERN LIGHTS BEEKEEPING
2023 WAS/CDBA Conference, Calgary



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| <p>INVENTORY LOCATION IN ALBERTA</p> | <p>REFRIGERATED TRANSPORT TO YOUR LOCATION</p> |
| <p>PREORDER END-TO-END PRICING AVAILABLE</p> | <p>FAST HIVING WITH TUBE PACKAGE DESIGN</p> |
|  <p>PREMIUM BOXES</p> <p>PREMIUM FRAMES</p> <p><small>PAINT WAX DIPPING ASSEMBLY AVAILABLE</small></p> |  |

Access to quality bees and woodware has become more complicated in recent years. Hiveworld's supply chain significantly reduces the hurdles to your labour plans and winter assembly schedule and helps to replace your bee losses more reliably. Don't tie up cash deposits for months for products someone can't supply you! Save yourself time, money, and missed revenue!

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Dear Beekeepers and Enthusiasts,

As the President of the Western Apicultural Society, it gives me great pleasure to welcome you to this year's bee conference at the Nation of Tsuut'ina near the beautiful city of Calgary, Alberta. This gathering promises to buzz with knowledge, camaraderie, and shared passion.

From across North America, each of you brings a unique perspective, experience, and understanding of the art, craft, and science of beekeeping. Whether you are just starting on this rewarding journey or have been a guardian of hives for decades, whether you delve into the depths of bee science or manage expansive commercial operations, we want this conference to reward your curiosity, kindle friendships, and inspire you!

The program ahead is designed to foster learning, facilitate exchanges, and above all, celebrate the magnificent world of bees that intricately binds us all. I am confident that as we share and collaborate, we will leave this event even more committed and motivated to enjoy and understand the world of beekeeping.

May our discussions be as sweet as the honey our bees gift us, and may our collective efforts continue to uplift the beekeeping community.

Warmly,

Etienne Tardif

President, Western Apicultural Society

Your Quick Guide to the Conference

[Welcome from Chief Lee Crowchild](#)

[Welcome from WAS Alberta Director](#)

Schedules

[Friday: Workshop Schedule](#)

[Saturday Schedule](#)

[Sunday Schedule](#)

Activities

[Workshops](#)

[Saturday Presentations](#)

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[Sponsors](#)

[Scenery, Culture, Bees Tour](#)

[Silent Auction](#)

[Trade Show](#)

Helpful Hints

[Area Information](#)

In this time of reconciliation, we acknowledge and welcome you to the Tsuut'ina Nation inherent lands.

Dada' nast' ada, Tsuut'ina Nation, a Dene Nation, are of the Athapaskan speaking dialect connecting their lineage to the biggest linguistic group on Turtle Island. (the North American Continent). From the coldest part of Turtle Island in Alaska to the warmest in Mexico.

These lands are affirmed and chosen by Tsuut'ina through the adhesion Treaty of 1883, and as recognized by those associated Tribes of Treaty 7 who also made Treaty with the British Crown. This proclamation of culture, language and land is to be preserved and passed on from the Tsuut'ina ancestors from time immemorial.



NEW FORMULA
From Vita Bee Health

OXYTET-62.5

The New oxytet formulation for bees from Vita BeeHealth Canada is now available from your veterinarian.

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| VITA BEE OXYTET 62.5 10kg | 140997 | 127978 | 5262020 |
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| VITA BEE OXYTET 62.5 100g | 140995 | 127976 | 5262000 |
| VITA BEE FUMAGILIN - B POWDER 24g | 141023 | - | 5262100 |
| VITA BEE FUMAGILIN - B POWDER 96g | 141024 | - | 5262105 |
| VITA BEE FUMAGILIN - B POWDER 454g | 141025 | - | 5262110 |
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| VITA BEE EFB DIAGNOSTIC KIT | 141027 | - | 5262120 |

Available as 100g sachets for small holdings or 400g tubs and 10kg pails for commercial use.

Vita Diagnostic kits for the early detection of European Foulbrood & American Foulbrood

It is vitally important to detect EFB and AFB as early as possible in order to prevent its further spread to healthy colonies.

Vita's two quick and effective diagnostic kits, developed with Central Science Laboratory enable every beekeeper and veterinarian to test for the presence of EFB or AFB in bee colonies.

FUMAGILIN-B

TO PREVENT NOSEMA IN HONEY BEES

Effective against *Nosema apis* and *N. ceranae*

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Xakiji Lee Crowchild

A Beekeeper's Message to You

Welcome to the Tsuut'ina Nation and the Northern Lights Beekeeping Conference.

Beekeeping is a way to connect back to nature, learn from nature, and maybe help nature. It can also help build communities because much of the work and skill involved in beekeeping is cooperative. People around the world have seen beekeeping restore the spirit, encourage healthy living, and build bonds between neighbours.

Today it is fall, the close of the summer season, but this is the time to start thinking about the year ahead. Although the Earth will become cold, the snow will again melt, flowers will blossom, and bees will visit those flowers as they always have. Now is the time to prepare to join that circle of life by learning to build homes for the bees, help them survive, and share in the work and rewards of the honey bees.

Beekeepers appreciate the environment. They know that good clean land, without chemicals but with many different types of flowers, helps the soil, the bees, and the people on the land. Beekeeping is hard work with both success and failure. Bees may become sick, animals such as bears may accidentally destroy a colony while trying to share the honey in the hive. The weather may become too hot, too dry, or an early frost may kill the flower blossoms. But from disappointments, we learn, become stronger, and we make healthy beautiful food to share with our family, friends, and community. The successful beekeeper might earn money for family and community, but even more important, can become a stronger person.

We hope that the your days in the Tsuut'ina Nation community will inspire you and that you will

strengthen your bond to the bees and to the people around you. This Conference will occur on National Truth and Reconciliation Day, a day to think about what we remember every day, the tragedy of loss. The loss of our language, our ways of living, our forests and meadows, but especially our children. We acknowledge and remember the suffering of the children.

As a beekeeper, you know that learning beekeeping is a lifelong job. Beekeepers sometimes say that every year they discover that there is even more to learn and understand. Together, we will learn more about beekeeping and nature at this Conference. Most beekeepers say that beekeeping is the most pleasant and healthy thing they have ever done. We hope you will feel the same.

Welcome to the Tsuut'ina Nation.
Enjoy the Conference.

Respectfully,

Xakiji Lee Crowchild



Beekeeping at Tsuut'ina Nation

Chief Lee Crowchild inspired and developed a training apiary on the Tsuut'ina Nation as an opportunity for First Nations' people to learn about honey bees, both their management and their lessons for society. Here are some photographs from that project.



Northern Lights Conference Program and Guide Calgary Alberta Canada September 29 – October 2, 2023



A warm Welcome(!) to the beekeepers from Hawaii, Idaho, Oregon, Washington State and Washington DC, California, New Hampshire, New Jersey, North Dakota, Tennessee, Wisconsin, Wyoming, Arizona, Montana, Minnesota, Texas, Finland, Ghana, Ontario, Newfoundland, Yukon, British Columbia, Manitoba, Saskatchewan, and Alberta! **Welcome to the Grey Eagle Resort and Conference Centre, here on the land of the Tsuut'ina Nation. . .**

. . . and just minutes away from the buzzing city of Calgary! It is with honeyed sweetness that we will celebrate our shared passion for the amazing bees.

I have lived in this beautiful, remarkable city for 35 years. I was so keen to welcome the Western Apicultural Society here to the North that we designed the theme of **Northern Lights Beekeeping** to help us focus on beekeeping at this latitude. I am an ex-American, born in Pennsylvania, and taught to work with bees there and in Florida, so I know and appreciate the enormous differences between beekeeping here and in those other lands.

Alberta winters are long and unforgiving; our summers are a blast of heat and honey. Tough conditions make tough beekeepers, as our history of beekeeping shows. Alberta and BC share the Peace River Country, the storied place of 400-pound honey crops. Even on the southern Alberta ranges and prairies, commercial beekeepers expect 200-pound crops (though usually settle on 160).

Honey quality on Canada's western plains is also remarkable. Almost every drop of honey produced here is White. If we want Amber honey to enter in a competition, we have to scorch it. Conservatively, I'd estimate that 95% of the honey produced in Alberta is either White or Water White. It's also smooth and mellow – much in demand by brokers and packers and cooks and connoisseurs.

Northern Lights Beekeeping will focus on big crops produced in a very short season and on colony preparations for our long cold winters. But Alberta beekeepers face many of the same issues as folks with honey bees elsewhere – mites, poor queens, swarming, deadouts, bee pasture, chemical residues – so these topics, and more, will also be among the presentations.

There will be brilliant talks at this conference, but you will have time to visit the big [Trade Show](#). The folks who traveled here to display their wares deserve our attention – and we should all see their latest labour-saving crop-enhancing equipment!

The Northern Lights Conference has a [honey competition](#)! I don't know the full WAS history of honey competitions, but my first WAS Conference was in Logan, Utah, 1982. I was in my twenties, living in Saskatchewan, when I drove down to see a WAS. I took a honey sample in a small jar to give to a honey buyer whom I knew would be there. He was also the honey judge. He entered my sample, which was right out of the drum and in an irregular container. It got top marks for shine and moisture, but zero for everything else. On the other hand, the gentleman ordered a semi of honey from my farm!

While here, enjoy Tsuut'ina, Calgary, and Alberta! Embrace your inner bee and immerse yourself in the city's thriving arts and music scene. It's a cosmopolitan city of a million and a half, yet at every corner, you can feel the Spirit of the West and the pulse of cowboy and indigenous culture.

Thank you all for coming to the 2023 WAS/CDBA Northern Lights Conference!

A handwritten signature in blue ink that reads "Ron Miksha". The signature is written in a cursive, flowing style.

Ron Miksha, WAS Alberta Director

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UP LIKE THIS.... IT'S TIME
TO DO SOME SHOPPING!**



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*we know bees, but could use graphic design help (!)



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WAS/CDBA International
Conference

**Northern Lights Conference Program and Guide
Calgary Alberta Canada September 29 – October 2, 2023**



Early Conference goers can join us for the Friday night **Meet and Greet**. Don't worry if you are clumsy and awkward around people and would rather stay in your room watching another repeat of MASH on the flat screen. If that describes you, it just means that you are a beekeeper! So, get out and enjoy your comrades in hefty philosophical debates such as, "Is it right to kill an elderly queen (bee) in order to do what's best for the hive?"

MEET & GREET
FRIDAY 7:00 – 9:00 pm
Buy your favourite brews, including a shot of mead
Munch on a carrot stick



Alberta Apiary, south of Calgary



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ANDERMATT CANADA PROVIDES BEEKEEPERS WITH PROVEN TOOLS TO MANAGE VARROA MITE WITH A COMPLETE PROGRAM APPROACH USING NATURAL PRODUCTS WHILE PROTECTING YOUR BEES FROM THIS INVASIVE PEST.

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VARROX Vaporizer

- Original design for oxalic acid vaporization
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NEW VARROX EDDY Vaporizer

- Re-chargeable Lithium battery operation
- Simple to use with automatic cycle
- Operator safety – no need to stand by & watch
- Easy to transport in a compact carrying case



TOOLS FOR FORMIC ACID APPLICATION

FAM Dispenser

- Sturdy construction for multiple years life
- Regulates vaporization of formic acid in hive
- Easy to apply
- Developed by Swiss Bee Institute



LIEBEG Dispenser

- Provides ability to monitor quantity of formic acid used
- Paper wicks to manage application rate
- Application based on Hive volume
- Developed by Swiss Bee Institute



FOR MORE INFORMATION CONTACT:

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Friday - Conference Registration is open from 8:00a - 7:30p

Workshops

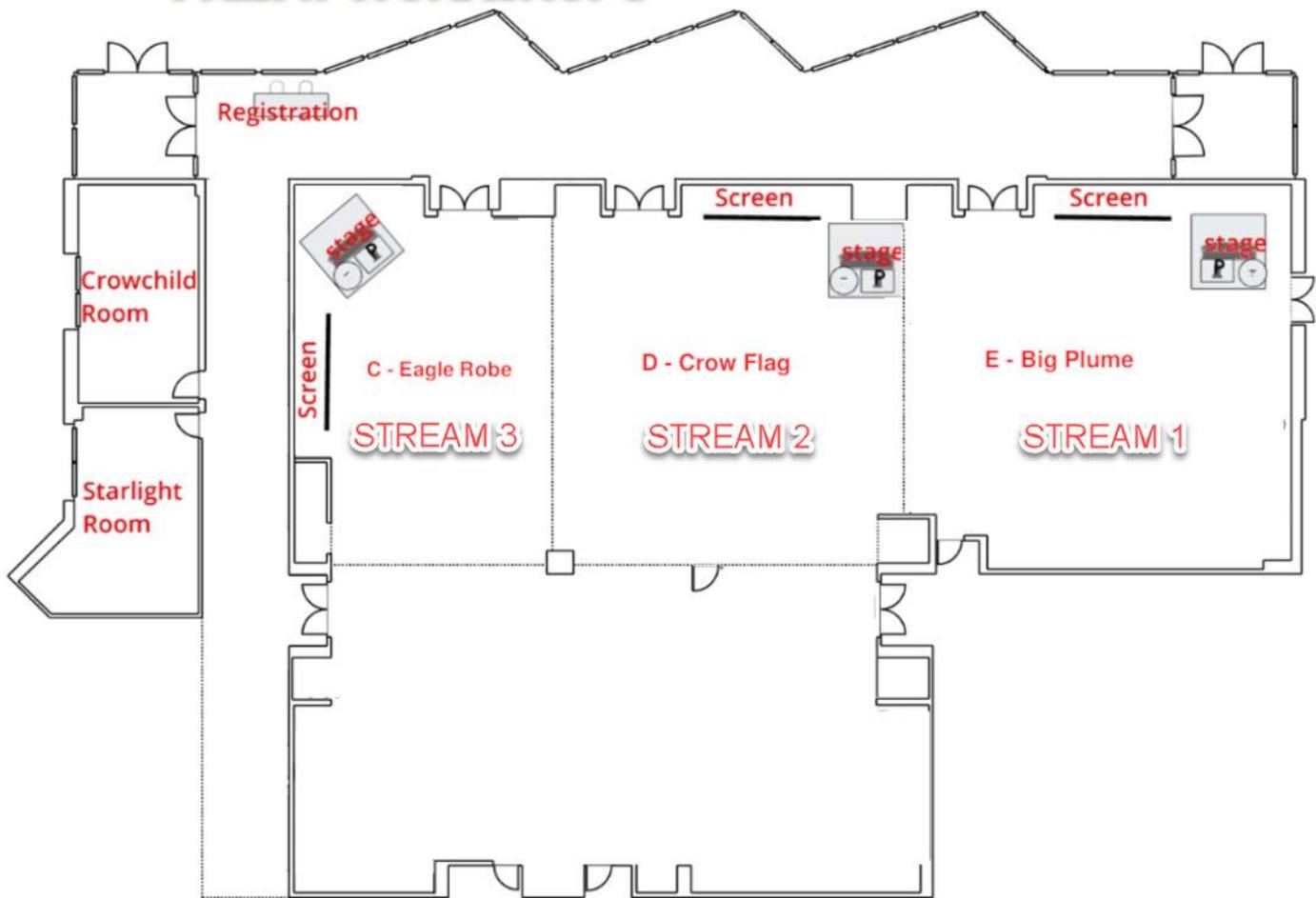
| Stream 1 <u>Big Plume Room</u> | Stream 2 <u>Crow Flag Room</u> | Stream 3 <u>Outside/Eagle Robe Room</u> |
|--|---|--|
| | 9:15a – 10:15a | |
| Cleaning up a Deadout Etienne Tardif | Propolis Benefits & Making your own Tincture Kevin Inglin | Dogs for Detection in Apiaries Rose-Anne Boffart |
| 15min Break | | |
| | 10:30a – 11:15a | |
| Bee Yard Microscopy Basics (Diseases, Pollen and Honey) Etienne Tardif | Use of Snelgrove and Cloak Boards Kamon Reynolds | Managing Bees and Bears Jay Honeyman |
| | 11:15a – 12:00p | |
| Managing Pests and Diseases Dr Medhat Nasr | Queen Rearing 101 - How to get Started!! Dr Juliana Rangel | Hive Inspections 1 Kathy Clay |
| 60min Lunch (Lunch not provided) | | |
| | 1:00p – 1:45p | |
| Maximizing Honey Production Dr Shelley Hoover | Hive Monitoring – Getting Started Dr Frank Linton + Rich Morris | |
| | 1:45p – 2:30p | |
| Preparing Hives for Winter Geoff Wilson | 3D Printing Beekeeping Equipment Bill Rayment | Alternative methods for Oxalic Acid Treatment in Hives for Varroa Control Dr Medhat Nasr |
| 15min Break | | |
| | 2:45p – 3:45p | |
| Bee Economics: Can you even break even? Ron Miksha | Mead Making Chris Meloche | Formic Acid Application Demo Robert McBain/Tom Nolan |
| | 3:45p – 4:30p | |
| Pollinator landscapes - Thinking Global, Acting Local Julia Common | Record Keeping and Scoring Traits for Queen Selection Dr Nuria Morfin | Hive Inspections 2 Kathy Clay |

Meet & Greet - Friday, 7:00p – 9:00p

Light snacks and beverages



FRIDAY WORKSHOPS



Hive inspection at Tsuut'ina Nation. The rocks, called "Grandfathers" symbolically and practically protect the hives.

WORKSHOP

PRESENTATIONS

3D Printing Beekeeping Equipment

- Bill Rayment

The workshop will show a number of projects I developed for use in my beekeeping practice. It will show a number of pieces that improve the workings of the extracting shed as well as beekeeping tools.

We can discuss the prototype progression of developing a project.

Alternative Methods for Oxalic Acid Treatment in Hives for Varroa Control

- Dr. Medhat Nasr

Bee Economics: Can you break even?

- Ron Miksha

In this workshop, we examine the range of financial results beekeepers can expect from their apiary. After a general background, with a look at Alberta beekeeping, we focus on small-scale honey producers. The workshop will use a customized, interactive spreadsheet as a tool for considering the impact of various values of the main variables of bee economics (bees, queens, equipment, labour, honey yield, markets, and other elements). Participants will generate apiary scenarios that we will discuss and will be given a copy of the spreadsheet for their later use.

Bee Yard Microscopy Basics

- Etienne Tardif

In this session we will explore the many uses of a relatively in-expensive microscope to your beekeeping. As some of you know, I use my microscope to help me understand my local environment where I keep my bees up here in the Yukon, I identify my nectar and pollen sources, understand what my bees are eating throughout the season, I've analyzed our subarctic honey to learn just how special it is 😊 Best honey in Canada 😊 and most importantly I use it to diagnose and understand some of the gut diseases that affect my bees. During the workshop, I will ask some of you to bring bee samples in little Ziplocs, frames with bee feces, local pollen sac balls if some of you collect pollen (fall pollen is really interesting and often contains rust spores that look like pollen). I will also take a walk around the venue and collect flowers to extract pollen samples, rust spores off late season plants to show you what is out there.

Cleaning Up Dead Outs

- Etienne Tardif

Basics on dealing with equipment left over after losing a colony or weak colonies. We will cover some basic questions and decisions a beekeeper must learn to deal with. This session will be combined with the microscopy basic session. Learning to make effective observations is key to better wintering success. What to do with soiled and moldy equipment? When should I replace old frames?

Dogs for Disease Detection in Bees: A Dog's Nose Knows

- Rose-Anne Bouffard of Dogs Find Bees

Dogs are famous for having noses that can detect almost anything. The correct rewards and encouragement enable our best friends to not only help us but also have fun doing it.

In this presentation/demonstration I will be introducing beekeepers to the possibilities of detecting dangerous diseases in honeybees, before they take over and destroy livelihoods. I will be discussing how a dog's nose works, why they work so well, and what motivates a dog to use their nose to our benefit. I will give examples of dogs used in conservation, human disease detection and alerting, and bomb/chemical detection.

There will be discussion regarding special considerations for bee disease detection, what diseases we'll be focusing on, dog safety, and the many challenges to reaching our goal. I will then discuss what success will look like.

Once this discussion is complete, I will have Lee Creek's Kennels Little Miss Molly give a demonstration of her abilities with respect to detection. We will be using bumble bees since using disease samples will be too dangerous for the hives that are present.

Afterwards we'll have a FAQ and dog meet and greet for attendees.

Managing Bees and Bears

- Jay Honeyman

Formic Acid Application Demo

- Robert McBain/ Tom Nolan

Hive Inspections - Thoughtful and Deliberate

- Kathy Clay

Step up to the hive for a new perspective when doing inspections. This workshop will guide participants toward better hive inspections; more thoughtful, more deliberate, and goal-driven. Master Beekeeper Kathy Clay will help participants sort through the many reasons for hive inspections and provide tips and ideas to achieve quality time spent while doing inspections. Students will see samples of hive pests during the session. The morning session will be packed full of inspection tips and if weather permits, the afternoon session will be a live session with a hive and colony of bees.

Hive Monitoring – Getting Started/ Technology

- Frank Linton and Rich Morris

The basic question I will address is this: Regarding the colonies in your hives, what features of the colony can you measure and what do those measurements tell you about the colony's health and productivity? Or simply, what can you measure and what does it tell you?

I will give examples of measuring and interpreting colony weight, temperature, acoustics, activity, and motion, using scales, thermometers, microphones, video, and radar.

The options for sensor power and communications, and the need for data analysis, presentation, storage, security, and sharing will be mentioned briefly.

Finally, we'll take a quick look at the future: SaS (sensing as a service), drones, auto-

detecting mites & AFB, satellite analysis of forage quality, and robot beekeeping.

Managing Pests and Diseases

- Dr. Medhat Nasr

Maximizing Honey Production

- Dr. Shelly Hoover

In this workshop, we discuss how to maximize your honey crop. We will cover topics such as hive location, colony management, how and when to super, how to harvest honey, all while keeping the health of the bees in mind.

Mead Making- Fundamentals

- Chris Meloche

This Mead Making workshop will provide the fundamentals for making mead, drawing off the speaker's 40-year experience with production of over 120 batches of wine, cider, beer, sparkling wine and mead. The presentation targets novices but also gives recommendations for those who have either experimented with mead making or else, previously made wine, beer or cider and are familiar with the brewing process. The workshop covers both theory in a PowerPoint presentation and a physical demonstration on the brewing equipment typically used. Topics include the following: mead history and types/recipes; fermentation process; equipment, setup and costs; sweetness and alcohol level; mead quality aspects; as well as bottling and aging.

Pollinator landscapes – Thinking Global, Acting Local

- Julia Commons

This workshop will provide examples of bee projects started by individual 'beekeepers' that have enhanced the environment for both pollinators and humans in the urban and rural settings of Vancouver. While honey bees continue to fascinate the public, the interest in "saving the bees" has now shifted somewhat to "saving the pollinators" and this leads us to the broader conversation of biodiversity with a focus on the interactions amongst all pollinators and plants.

So many new beekeepers located in urban settings face the challenges of how and where to keep bees in a responsible manner within their economic and ecological means.

The idea of this workshop is to share experiences, challenges, ideas, and opportunities with one another. If we get it right perhaps some will be inspired to try broadening their reach to make a positive impact on their environment and in return find support and community with and through the bees.

Preparing Hives for Winter

- Geoff Wilson

Propolis Benefits & Making your own Tincture

- Kevin Inglin

Propolis is present in every hive, but as a beekeeper do you embrace it? Traditionally considered a nuisance, the industry as steered us toward bees that do not to make a lot of propolis.

The time has come to rethink this notion and embrace the vital role propolis plays with the colony. In addition, propolis has many uses for humans and this presentation will outline a step-by-step process for making a propolis powder and tinctures. It is time to spread the word about the value of propolis and encourage it in our hives.

amazing art of keeping good beekeeping records! This is a workshop for beginners and beekeepers interested in queen rearing and/or selective breeding.

Queen Rearing 101 – How to Get Started!

- Dr. Juliana Rangel

In this workshop, participants will learn the basic procedure for successful queen rearing in small beekeeping operations. We will define some of the most common jargon used in queen rearing, including concepts like “cell builder,” “cell frame,” “grafting,” and “queen bank,” among others. We will go into detail about what a “starter-finisher” structure needs, and we will describe how to rear queens via the Doolittle grafting method. At the end of this workshop, participants will be able to recognize the basic queen-rearing terms, and will have the tools needed to get started with rearing queens in their own backyard apiary.

Record Keeping and Scoring Traits for Queen Selection

- Dr. Nuria Morfin

In this workshop, we will discuss the benefits of keeping records of honey bee colony performance, including honey production, brood and adult population, queen performance, desirable behaviours, and diseases. We will do exercises on how to keep records using Excel (or Google Spreadsheets), and we’ll discuss the long-term benefits of the

Use of a Snelgrove and Cloak Boards

- Kamon Reynolds



A west-central Alberta apiary managed by Elmer Zumwalt in the 1970s



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Pollen in our formula is irradiated by lotron for prevention of bee disease

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Saturday, September 30

Conference Registration is open from 7:00a - 5:00p

Opening Remarks - 8:00a to 8:25a

PRESENTATIONS

Networking - Tradeshow Break (20 min)

Stream 1: Big Plume Room

Stream 2: Crow Flag Room

8:45a – 9:45a

The (considerable) Obstacles to Increase Bee Pasture

Dr Melathopoulos (USA/Canada)

Queen Quality and Performance

Dr Medhat Nasr (SK)

Networking - Tradeshow Break (30 min)

10:15a – 11:15a

Commercial Beekeeping Course Development & First Student Impressions

Dr Bromenshenk | Dr Debnam (University of Montana)

Practical Queen Rearing for Hobbyist (Splits & Nucs)

Kamon Reynolds (TN)

Networking - Tradeshow Break (15 min)

11:30a – 12:30p

The Frame Game - The Critical Role of Frames in the Hive

Kevin Inglin (NJ)

Hive Management - What are You Missing?

Rich Morris (WI)

12:30p – 1:30p

Lunch Break (60 min)

Focus Group (Max 10 people) - The Economics of Blueberry Pollination (Dr Miriam Bixby)

1:30p – 2:15p

Yukon Honey

Etienne Tardif (YT)

2:15p – 3:00p

Honey Flora from “the World’s Most Interesting Oceanic Island” (Hawaii)

Carey Yost (HI)

3:00p – 3:45p

Searching for the World's Sweetest Honey

Ron Miksha (AB)

3:45p – 4:15p

Honey Marketing

Roundtable

1:30p – 2:30p

Keeping Hives Alive - Behavioural Defence of Honeybees Against Disease

Olav Rueppell

2:30p – 3:00p

Networking - Tradeshow Break

3:00p – 4:00p

Queen Management Essentials

Juliana Rangel

Networking - Tradeshow Break

Networking - Tradeshow Break

Networking - Tradeshow Break

4:30p – 5:30p

TTP - BC Pathogen Monitoring / BC Beekeeping Sector

Nuria Morfin / Miriam Bixby

Year in the Life of a Large-scale Beekeeper

Reece Chandler

Networking - Tradeshow Break

Closes at 6:30p

BEEKEEPING AT ITS FINEST: PROPOLIS-ETC... YOUR TRUSTED PARTNER SINCE 2007

Welcome to the exciting world of beekeeping, where tradition meets innovation, and passion drives progress. In the bustling beekeeping community of North America, one company stands out for its unwavering commitment to providing top-quality products and cutting-edge technology right at your doorstep. Enter **Propolis-etc...**, revolutionizing beekeeping since 2007.

**Craftsmanship at its Best:
Wooden Ware Manufactured
In-House**

At **Propolis-etc...**, we take pride in our meticulous craftsmanship. We manufacture all our wooden ware in-house, ensuring superior quality and attention to detail.



Each piece is expertly crafted to withstand the rigors of beekeeping; you can rest assured that your bees are well-housed in structures built to last.

**From Italy to Your Apiary:
Exceptional Bee Packages**

April and May bring a touch of Italian excellence to **Propolis-etc...** We offer beautiful bee packages imported directly from Italy.

These 3.3 lbs packages provide a thriving population of bees, ready to embark on their journey in your apiaries.



**In Partnership with Swienty:
Setting New Standards in
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We are honored to be the proud distributors of Swienty, a renowned Denmark-based company celebrated for producing the finest filling machines for honey.



With their state-of-the-art technology and precision engineering, Swienty elevates honey processing to new heights. **Propolis-etc...** brings these cutting-edge machines to beekeepers across North America, enabling them to package honey with unparalleled efficiency and precision.



**BEEKEEPING AT ITS FINEST:
PROPOLIS-ETC... YOUR
TRUSTED PARTNER SINCE 2007**

Advancing Beekeeping with Unmatched Expertise

For over a decade, **Propolis-etc...** has been a steadfast companion to beekeepers, empowering them with the tools and knowledge they need to thrive. Through relentless dedication, we have pioneered the evolution of beekeeping, bringing advanced technology and top-notch products within easy reach of amateurs and professionals alike.

Shipping Worldwide: From Small to Large Orders

Distance is no obstacle when it comes to serving beekeepers. At **Propolis-etc...**, we understand that every order, big or small, deserves the utmost attention and care. That's why we proudly ship our products to beekeepers everywhere. Whether you're a backyard enthusiast or a commercial operation, we ensure your beekeeping supplies reach you promptly and securely, wherever you may be.

Committed to Service and Community

Above all, **Propolis-etc...** boasts a dedicated team driven by a genuine passion for beekeeping. We are here to serve you and the larger beekeeping community. Our knowledgeable staff is always ready to assist, providing expert advice, troubleshooting support, and a listening ear. Together, we strive to strengthen the bonds of this remarkable community, fostering a culture of collaboration and shared success.

For more information about **Propolis-etc...** and to explore our extensive product range, visit our website at www.propolis-etc.ca or reach out to our team directly. Let us be your trusted partner on your beekeeping journey.

Northern Lights Conference Program and Guide

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Sunday, October 1

PRESENTATIONS

Networking - Tradeshow Break (15 min)

Stream 1: Big Plume Room

9:00a - 9:45a

Hive Thermodynamics

Etienne Tardif (YT)

10:00a - 10:45a

Wintering Singles

Geoff Wilson (SK)

11:00a - 11:45p

Is In-Hive Moisture Killing your Colony?

Scott Debnam (MT)

11:50a - 12:30p

Wintering Roundtable

Moderator: Kamon Reynolds

Stream 2: Crow Flag Room

9:00a - 10:00a

Observation Hives: Every Home Should Have One

Frank Linton

Networking - Tradeshow Break (30 min)

10:30a - 11:30a

Bee Health and Nutrition: Nutritional Ecology of Workers on a Changing Landscape

Juliana Rangel (USA)

Networking - Tradeshow Break (15 min)

11:45a - 12:30p

Queen failure after Shipping: Could Humidity Play a Role?

Tracey Smith (AB)

12:30p - 1:30p

Lunch Break (60 min)

Focus Group (Max 12 people) - Jerry Bromenshenk Hive Technology

1:30p - 2:15p

Explosion in Urban Beekeeping

Dewey Caron (USA)

2:15p - 3:00p

Calm Hands In the Hive, Responsible Beekeeping in the City

Julia Common (BC)

3:00p - 3:45p

Does Urban Beekeeping Kill Native Bees?

Ron Miksha (AB)

3:45p - 4:30p

Roundtable: Urban Beekeeping

Moderator: Dr Melathopoulos

1:30p - 2:30p

Alternative Hives - A Fun Study of Hive Designs

Kevin Inglis

2:30p - 3:00p

Networking - Tradeshow Break

3:00p - 4:00p

Recipe to a Sustainable Apiary

Kamon Reynolds (USA)

Networking - Tradeshow Break

Networking - Tradeshow Break (15 min)

4:45p - 5:30p

Symbiotic Gut Health

Renee Kusilek (USA)

Advance Top Bar: Over 100% Increase in Honey Yield

Perry Mankattah (Ghana)

5:30p - 6:00p

Close - Out Roundtable and Q&A

Networking - Tradeshow Closes (30 min)

Closes at 6:30p

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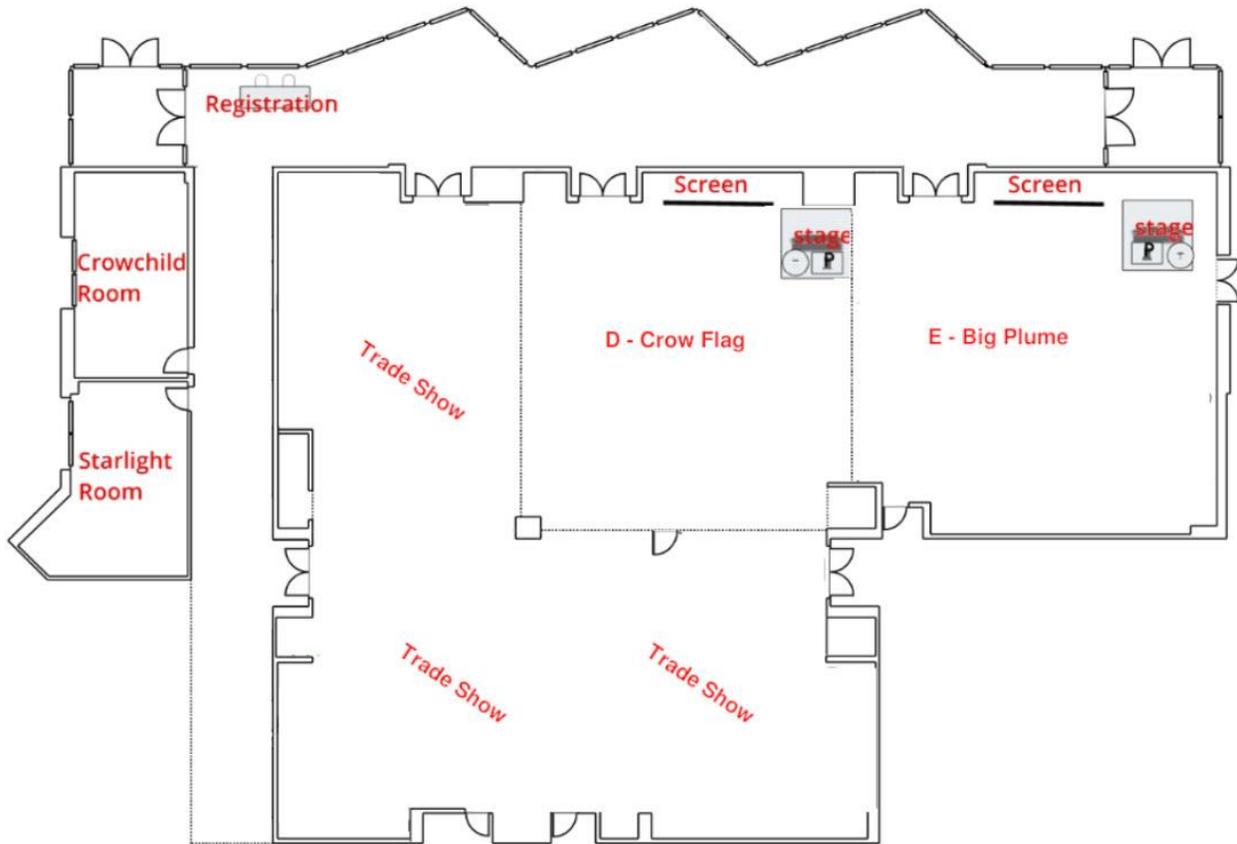
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Calgary Alberta Canada September 29 – October 2, 2023

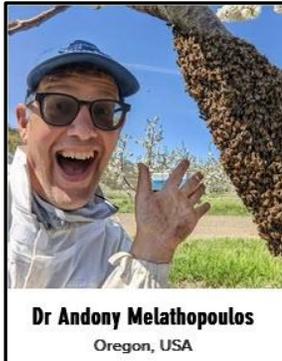


SATURDAY AND SUNDAY PRESENTATIONS



This location, a few minutes southwest of Calgary, is typical of foothills scenery in late summer. The rich black soil fosters alfalfa and canola, both seen in this view, and both exemplary Alberta honey plants.

SATURDAY in the Big Plume Room



The (considerable) obstacles to increase bee pasture in the Pacific Northwest

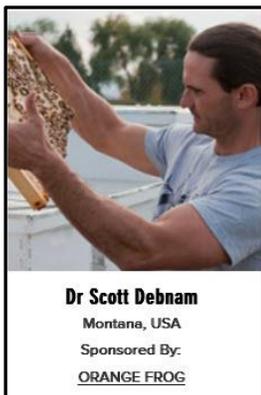
Andony Melathopoulos
Assistant Professor in Pollinator Health Extension

Saturday 8:45 Big Plume Room

Dr. Andony Melathopoulos is an Assistant Professor in Pollinator Health Extension in the Department of Horticulture at Oregon State University, which was the first such position in the US. He also sits on the Steering Committee of the Oregon Bee Project, which coordinates pollinator health work across state agencies and hosts a weekly podcast called PolliNation.

In 2018, Andony was recognized with the National Pollinator Advocate Award by the North American Pollinator Protection Campaign.

Talking about how the erosion of the area planted to honey bee forages has significant impacts not only to honey yields, but also to the health of honey bee colony stocks. While there have been a number of efforts to increase forage area by federal, private and local regional initiatives, the bulk of investments have been made in the Northern Great Plains or California. Oregon, Washington and BC in contrast, lag behind. This presentation outlines some of the specific needs for forage in the Pacific Northwest region and some of the key challenges facing the expansion of area planted to forages. It will also outline some of the low-hanging fruit for getting honey bee forage projects off the ground in the region.



Commercial Beekeeping Course Development & First Student Impressions

Jerry Bromenshenk and Scott Debnam
(University of Montana)

Saturday 10:15 Big Plume Room

Scott Debnam: The University of Montana's Organismal Biology, Ecology, & Evolution program awarded Dr. Scott Debnam his Master's degree in Pollination Ecology in 2016 and his Doctorate in Insect Physiology in 2022. Scott is an expert on honey bee problems and pests and specializes in nest thermoregulation and the economics associated with nest thermoregulation. For the past 10 years, he has co-instructed the University of Montana's Online Master

Beekeeping program, which received the 2019 UPCEA award for outstanding online education. He has taught over 2000 students from 22 different countries. As well as being an instructor at Amherst College, he is a co-instructor of the new Commercial Beekeeping program at UM Online.

Jerry Bromenshenk: Received his Ph.D. in insect ethology (behavior) from Montana State University. He co-founded Bee Alert Technology in 2003 and is the statewide director of Montana's EPSCoR program (Experimental Program to Stimulate Competitive Research). His research focuses on insect behavior, ecotoxicology, population dynamics, and environmental chemistry. He recently served as president of WAS - Western Apiculture Society. Dr. Bromenshenk has 40 years experience working with honeybees.

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Kevin Inglin

New Jersey, USA

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North of 60 Beekeeping

The Frame Game - The Critical Role of Frames in the Hive

Kevin Inglin

EAS Master Beekeeper | Beekeeping Mentor | Podcaster

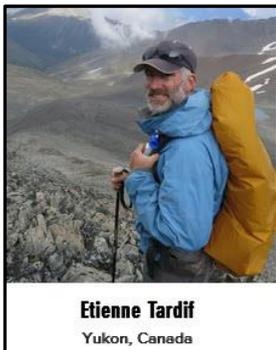
Saturday 11:30 Big Plume Room

Kevin is a hobby beekeeper from central New Jersey. Married (Sharon) with two boys (Dan and Brian) who all pitch in to take care of the bees out in the yard.

They started beekeeping in May of 2008 and maintain anywhere from four to a dozen hives along with hives of different form factors (Top Bar, Layens, Warre, etc.). Sometimes he has many types in service and other times it is scaled down – it changes over time.

He actively participates with the Northwest New Jersey Beekeepers Association that serves Hunterdon and Warren Counties in NJ. He is a past president of the organization and serve as their webmaster and YouTube administrator.

He obtained EAS Master Beekeeper certification in July 2019 and he can be found training locally and regionally throughout the year on various topics and produce the Podcast (since April 2010) on the side throughout the year. <https://www.bkcorner.org>



Etienne Tardif

Yukon, Canada

Yukon Honey

Etienne Tardif

WAS President

Saturday 1:30 Big Plume Room

Etienne has a mechanical engineering background. He got his start in beekeeping with a geologist friend as part of mine reclamation project. The beekeeping was done after work hours. It was learn as they go operation as they were the only beekeepers in the area and Beekeeping for Dummies was their primary source of information. He now lives in the Yukon Territory and has kept bees for the last 12 years in northern cold climates where he takes a very data driven approach to keeping his bees. He has collected data to understand the annual bee cycle, mapped out the bloom calendar along with the nectar and pollen flows. He loves everything to do with bees/native pollinators and continuously seeks to expand northern best practice beekeeping. His current focus is winter thermoregulation, bee nutrition and bee health. In 2021, he received CAP funding to conduct a Yukon honey origins projects to better understand Yukon/Boreal/Subarctic nectar sources (pollen analysis) as well as the local honey chemical characteristics (NMR). He is also president of WAS – Western Apicultural Society.



Early
summer
Alberta
apiaries.

Northern Lights Conference Program and Guide

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Hawaii Honey

Carey Yost
WAS Hawaii Director

Saturday 2:15 Big Plume Room

Retired chemical engineering technician from the Chicago area. I have been a diver for most of my life and volunteered at the Shedd Aquariums as Coral Reef diver. It is there that I met Dr. Sylvia Earle, and she wrote a letter of reference for my Conservation Education internship with Disney Worldwide in 2000. After taking an early retirement offer early five years later, we

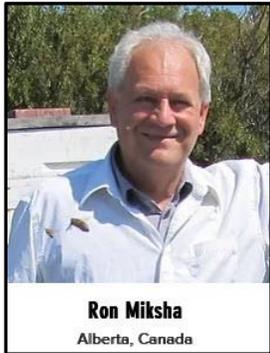
moved to Hawai`i to pursue my Masters in Tropical Conservation Biology and Environmental Science studying watershed conservation, to continue my lifelong interest in looking at living things in the water.

In Hawai`i, my studies and our small orchard home began to highlight the importance of pollinators. I was able to do some field work on Hawai`ian Hylaeus bees while studying watershed ecosystems in the Hilo Forest Reserve. Meanwhile, our home orchard failed to set crop in 2009, following the introduction of the *Varroa destructor* to our area of Hawai`i. A woodworker friend of ours had recently taken up beekeeping and was looking for places to set hives. His hive in our yard brought fruit back to our orchard and created an interest in all things bees in me. Seven years later, our friend was set to retire & move and we bought his hive and equipment. We made an accidental split our first month of beekeeping by adding a queen excluder with the queen in the upper box. At that point, we started to search for as much information as we could find on beekeeping and beekeeping in Hawai`i, and joined Big Island Beekeepers Association (BIBA) as Jim & Carey's Happy Bees, where we found out the beekeeping legislation on Hawai`i Island was poorly drafted and could make our hobby beekeeping either not legal, or pets in the eyes of our county code, which could leave our hives up to local interpretation on whether our bees could remain in our orchard.

In 2018, I became active in informing our legislators of the inconsistency in our laws and active in educating the public in the importance of native and introduced pollinators within our state. In 2019, we began to start up new low-income beekeepers with hives we have split, swarms that we have caught or hives we have cut-out from home owners without the means or ability to hire professional wexterminators, while trying to keep our home apiary in a very manageable range for our residential orchard lot, and having honey that has placed in every Hawaiian Honey Challenge we entered honey (<https://www.bigislandbeekeepers.com/winners>). Our public education outreach has lead me to formulate public education presentations on beekeeping and the history of beekeeping in Hawai`i. My husband, Jim Klyman, was on the board of BIBA, one of the largest and longest running beekeeping clubs in the state. It was while he was on the board that we realized that BIBA was not incorporated in any organization and held no liability coverage. During the last two years, we have been assessing the need for Hawai`i to have a state-wide organization for our state beekeepers and for those that are interested in the native bees, and pollinators, within our state, and have started a plan to organize a state beekeeper network (www.hawaiibeekeeper.org). It is through this lens of seeing the importance of having a formal representation of beekeepers within our state, and nation, that I am volunteering to represent Hawai`i region at Western Apicultural Society.

Talking about the botanical sources of the nectars bees bring into the hive affect the nutritional value of the honey for bees, consumers, and labeling compliance. However, many beekeepers do not know the actual botanical sources of their honey. Join me in a fast flight through the research I have done to identify botanical sources of our honey and labeling requirements for producers. This presentation will highlight my research into traditional and genetic melissopalynology. This research will give you a taste of the initial eDNA analysis of honeys from our district apiaries to identify seasonal and elevation differences in the botanical sources utilized by bees in Puna, Hawai`i.

(<https://www.hawaiibeekeeper.org/pollen-studies>) and the potential to utilize Citizen Scientists to increase botanical databanks.



Searching for the World's Sweetest Honey

Ron Miksha
WAS Alberta Director

Saturday 3:00 Big Plume Room

Ron Miksha is a bee ecologist working at the University of Calgary. He is also a geophysicist and does a bit of science writing and blogging. Ron has worked as a radio broadcaster, a beekeeper, and Earth scientist. (Ask him about seismic waves.) His commercial beekeeping spans six decades and five states and provinces. Ron is based in Calgary, Alberta, Canada.

Talking about how honey tastes different. Some is sharp, spicy, earthy, oaken, fruity – oh, wait. That’s wine-talk, isn’t it? But, really, honey is just as varied. Natural chemicals, minerals, and various sugar compositions add up to something we can love or hate. Without doing a deep dive, we search the world for the sweetest honey – and learn a bit about honey along the way.

Honey Marketing Roundtable

Saturday 3:45 Big Plume Room



BC Pathogen Monitoring

Nuria Morfin and Miriam Bixby
Tech Transfer Program

Saturday 4:30 Big Plume Room

Dr. Nuria Morfin, is the Tech Transfer Program Lead in British Columbia. She has been working with honey bees for fifteen years as an extensionist, beekeeper, and researcher. Nuria got her PhD from the University of Guelph – Honey Bee Research Centre, where she later worked as a researcher studying the impact of stressors on health and behaviour, analyzing the mechanisms behind behavioural immunity, and studying the lipidome and metabolome profile of bees. Nuria also worked as a Bee Inspector for the Ontario Ministry of Agriculture, Food and

Rural Affairs (OMAFRA). Throughout her career, she has been actively contributing to apicultural research and the beekeeping industry.

Dr. Miriam Bixby is Associate Researcher, Bee CSI, and Socio-Environmental Economist at the University of British Columbia.

Talking about the background of TTP and the pathogen surveillance project, followed by the Sector analysis done in BC, showing the BC bee industry’s vital statistics - plus an invitation to beekeepers to fill out a blueberry study survey.

SATURDAY in the Crow Flag Room



Dr Medhat Nasr
Saskatchewan, Canada
Sponsored By:
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Queen Quality and Performance

Dr Medhat Nasr
Research Scientist– Research Lead of Bee Tech Adaptation Program

Saturday 8:45 Crow Flag Room

Dr. Medhat Nasr is a highly regarded apiculturist, educator, and regulator with over 50 years of experience in both the public and the private sector. In Alberta, he served as Alberta Provincial Apiculturist from 2002-2019. During this period, he extended the regulatory program to include applied bee research and extension activities.

In 1994 he introduced and established the first “Bee Tech-Transfer program” in Ontario. He served as Ontario Beekeepers Tech Transfer program lead from 1994-2000. In fact, this program has been established in 9 Provinces in Canada and in 5 regions in the USA.

Dr. Nasr expertise encompasses a wide diverse range of skills including bee pest management, bee breeding, and bee technology development, adoption and transfer. His research program focuses on developing effective methods and registration of miticides to control mite including formic acid, oxalic acid, HopGuard2 and Apivar® in Canada. Currently, his research is focused on developing new alternative miticides for Varroa control, managing miticides resistance, evaluation of integrated pest management (IPM) programs, and selection and breeding quality bee queens.

Dr. Nasr graduated from Cairo University, Giza, Egypt with B. Sc. and M. Sc. degrees in Entomology. He earned a Ph. D. degree in Entomology from the University of California, Davis, USA.



Kamon Reynolds
Tennessee, USA
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CDBA

Practical Queen Rearing for Hobbyist (Splits & Nucs)

Kamon Reynolds
Beekeeper

Saturday 10:15 Crow Flag Room

Kamon Reynolds is the co-founder (with his wife) of the North American Honey Bee Expo and Tennessee's Bees and has been keeping bees in North Central Tennessee for 21 years.

Kamon keeps 250+ hives with his wife Laurel. Kamon and Laurel also have filmed hundreds of educational videos to help new and veteran beekeepers around the world keep their bees successfully. Though Kamon does 99% of the talking, Laurel has been Beekeeping for 16 years and is an invaluable part of their Business Tennessee's Bees LLC. Tennessee's Bees specializes

in quality Bee Genetics, Pure Tennessee Honey, and Honeybee Education. Their videos can be found on <https://www.youtube.com/channel/UCkoAuqRak>

Kamon currently has 60,000 beekeepers that follow him on Youtube.



Hive Management - What are you missing?

Rich Morris
Lead Drone, BroodMinder

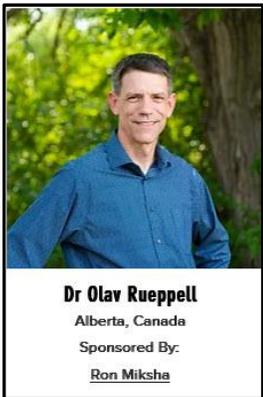
Saturday 11:30 Crow Flag Room

Rich is an engineer, a product designer, and an avid beekeeper. After keeping bees for 8 years, he became increasingly curious to know what was going on in his hives when he wasn't there. BroodMinder was born out of that curiosity. Partnering with a team of like minded professionals, Rich has used his extensive design experience to create beekeeper-friendly wireless beehive monitors in a quest to better understand and sustain our precious bees. BroodMinder is an effort to collect global hive data from over 30,000 sensors into a public domain database, to be shared with bee lovers everywhere.

Talking about *What are you Missing? - Advances in Beehive Monitoring.* We will discuss hive monitoring from the perspective of a beekeeper. "Namely: What does it mean for hive management? BroodMinder has collected data from thousands of beehives over the last eight years. So what have we learned?"

Monitoring something as simple as brood temperature allows us to track brood development, brood strength, swarming, and the queening process. We will also explore how additional factors can validate and extend our ability to understand what is going on with the colony.

Finally, we will discuss our progress with real-time, in-hive varroa mite counting.



Keeping hives alive - Behavioural defence of honeybees against disease

Olav Rueppell
Honey Bee Research University of Alberta

Saturday 1:30 Crow Flag Room

Dr. Olav Rueppell received his undergraduate and doctorate degrees from the Julius-Maximilians Universität Würzburg working on social evolution in ants. After a postdoc at the University of California Davis that introduced him to the wonderful world of honey bees, he set up a diverse and productive research group at the University of North Carolina Greensboro that steadily grew for the past 17 years. Now, he is excited to continue that legacy with a fresh start at the

University of Alberta to study honey bee biology and health and related topics. His overall goal is to understand the causes and consequences of social evolution across different levels of biological organization, using the honey bee as primary model. Specific areas of interest are life-history and aging, behavior, and genome architecture. He also seeks to identify sustainable solutions to improve honey bee health, focusing on viruses, the ecto-parasitic Varroa mite and hygienic behavior, and general stress responses in honey bees.

Talking about how varroa mites and viruses present some of the most challenging stressors of honey bees due to limited treatment options. Honey bees have evolved some defenses, including grooming and hygienic behaviour. This presentation is focused on hygienic behavior and will describe several studies that we have conducted to understand the detailed division of labour of it, how it is influenced by colony size, which chemical signals are involved, and how this knowledge can be converted to a practical assay that might improve apicultural efforts to breed more resilient honey bees. I further explain repercussions of hygienic behavior on viruses and also demonstrate that honey bee queens are particularly protected against virus infection, although the mechanisms of this phenomenon remain to be elucidated.

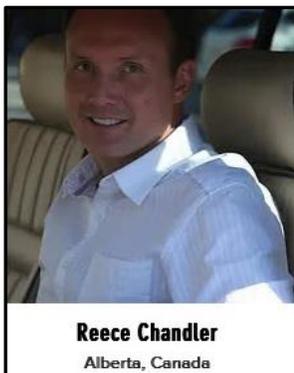


Queen Management Essentials

Juliana Rangel
Assistant Professor in Pollinator Health Extension

Saturday 3:00 Crow Flag Room

Dr. Juliana Rangel was born in Colombia, South America. She obtained her Ph.D. from Cornell University in 2010 and in 2013, she became Assistant Professor of Apiculture in the Department of Entomology at Texas A&M University. Her research program focuses on the biological and environmental factors that influence the reproductive quality of honey bee queens and drones, the health and population genetics of feral honey bees, and the quality and diversity of floral sources collected by honey bees in developed areas across the country. She is also an active member of the Texas Beekeepers Association and has spoken to numerous beekeeping associations in Texas and across the USA. She teaches two undergraduate courses, Honey Bee Biology and Introduction to Beekeeping, and also Professional Grant Writing for graduate students. She was the 2014 President of the American Association of Professional Apiculturists.



A year in the life of a large-scale beekeeper

Reece Chandler
Commercial Beekeeper

Saturday 4:30 Crow Flag Room

Reece and Echo Chandler co-own south-central Alberta's Scandia Honey. Scandia Honey is one of the largest beekeeping businesses in Canada. It is focused on the crop pollinating side of the bee business, although honey production is critical to the company, too.

A Calgary couple, Reece and Echo met in school. Reece's roots were not in beekeeping. After university, Reece owned a painting contractor business. While goose hunting, he met Ed Willms, a commercial beekeeper in Scandia, Alberta, two hours southeast of Calgary. In 1996, Reece and Echo moved to the small remote town, bought Willm's thousand colonies, and expanded the outfit ten-fold. One key to their success was the proximity of hybrid canola seed production, which requires a massive concentration of honey bees rented from beekeepers, such as the Chandlers'.

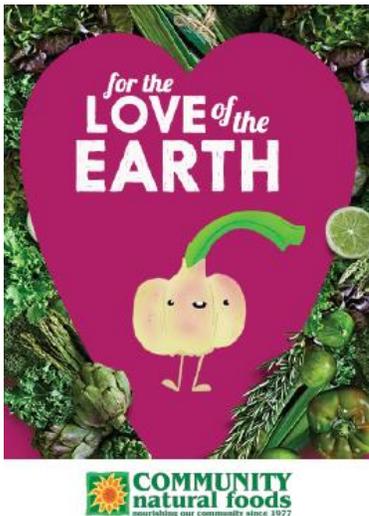
Over the past 27 years, Reece and Echo learned to winter thousands of colonies in climate-controlled sheds, handle the importation of packages from New Zealand, move thousands of colonies into canola fields, maintain those hives (which don't usually produce honey because of their 400 colonies/quarter section density), then relocate the bees to better honey areas after canola pollination ends, extract a million pounds of honey, ship their white honey to buyers around the world, and finally, prepare the colonies for winter. A true family business, Reece and Echo's daughter Tique packs a honey line, Chandler Honey, which brings pure, mild Alberta honey to Toronto.

Reece will be presenting about the challenges of managing 35 employees and operating an expansive honey and pollination business.

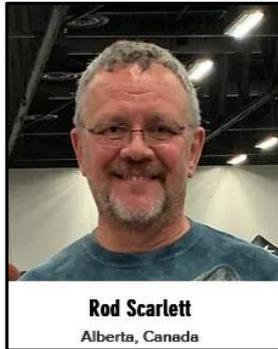
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WEEKEND PRESENTATIONS SUNDAY



Canadian Beekeeping Industry Update

Rod Scarlett
Canadian Honey Council Executive Director

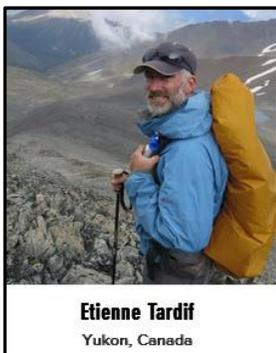
Sunday 8:00

Prior to joining the Canadian Honey Council as the Executive Director in January of 2011, Rod Scarlett was the Executive Director of Wild Rose Agricultural Producers, Alberta's general farm organization, for fourteen years and concurrently, the General Manager of the Canadian Young Farmers Forum for six years. After obtaining his MA in Canadian Studies from

Carleton University, Rod worked for eight years with the Government of Alberta where he was Executive Assistant to three different Cabinet Ministers.

He has served on the executive of the Canadian Agricultural Safety Association and the Pest Management Advisory Council. He currently sits on the Board of the Canadian Agricultural Human Resource Council, Pollinator Partnership Canada, Co-Chair of AAFC's Horticulture Sector Engagement Table and was Co-Chair of AAFC's Canadian Bee Health Roundtable. He sits an ex-officio board member of the US based Honey Bee Health Coalition and is also a member of the international Apimondia Honey Fraud working group.

SUNDAY in the Big Plume Room



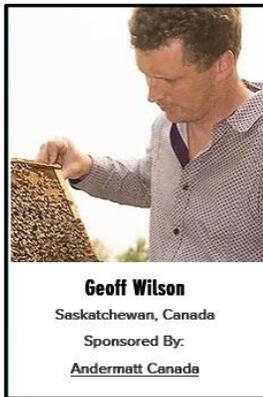
Hive Thermodynamics

Etienne Tardif
WAS President

Sunday 9:00 Big Plume Room

Etienne has a mechanical engineering background. He got his start in beekeeping with a geologist friend as part of mine reclamation project. The beekeeping was done after work hours. It was learn as they go operation as they were the only beekeepers in the area and Beekeeping for Dummies was their primary source of information. He now lives in the Yukon Territory and

has kept bees for the last 12 years in northern cold climates where he takes a very data driven approach to keeping his bees. He has collected data to understand the annual bee cycle, mapped out the bloom calendar along with the nectar and pollen flows. He loves everything to do with bees/native pollinators and continuously seeks to expand northern best practice beekeeping. His current focus is winter thermoregulation, bee nutrition and bee health. In 2021, he received CAP funding to conduct a Yukon honey origins projects to better understand Yukon/Boreal/Subarctic nectar sources (pollen analysis) as well as the local honey chemical characteristics (NMR). He is also president of WAS – Western Apicultural Society.



Wintering Singles

Geoff Wilson
Saskatchewan Provincial Specialist

Sunday 10:00 Big Plume Room

Geoff grew up in rural southwestern Ontario. He started beekeeping at the age of 15 helping a small-scale neighbor beekeeper with his 100 colony operation and got his own colonies the next year. He has been involved with the bee industry ever since. Geoff obtained both his B.Sc. (Agr.) and M.Sc. from the University of Guelph where he studied agrology as an undergraduate and bee health and genetics in graduate school, while paying his way through school by working for a large commercial beekeeper in southern Ontario. After a few years of working with the Ontario Beekeepers Tech Transfer Program and then commercial beekeeping in Eastern Ontario, Geoff moved to Saskatchewan to work with the Ministry of Agriculture. Geoff has been Saskatchewan Provincial Specialist, Apiculture since 2009, with the primary goal of helping beekeepers to maintain bee health and keep a healthy beekeeping industry. He keeps approximately 100 colonies plus nucs with his wife for breeding and trialing new products and beekeeping techniques.

Talking about the *Keys to Successfully Outdoor Wintering Singles in Northern Climates*. We keep bees in singles, 3 miles from the Northern edge of Agriculture in Saskatchewan. We winter 10 frame singles and 6 frame nucs outdoors. Winters always hit -40, sometimes for multiple weeks in a row.



Is In-Hive Moisture Killing your Colony?

Scott Debnam
University of Montana

Sunday 11:00 Big Plume Room

The University of Montana's Organismal Biology, Ecology, & Evolution program awarded Dr. Scott Debnam his Master's degree in Pollination Ecology in 2016 and his Doctorate in Insect Physiology in 2022. Scott is an expert on honey bee problems and pests and specializes in nest thermoregulation and the economics associated with nest thermoregulation. For the past 10 years, he has co-instructed the University of Montana's Online Master Beekeeping program, which received the 2019 UPCEA award for outstanding online education. He has taught over 2000 students from 22 different countries. As well as being an instructor at Amherst College, he is a co-instructor of the new Commercial Beekeeping program at UM Online.

Talking about moisture, a potential colony killer.

Wintering Roundtable

Moderator: Kamon Reynolds

Sunday 11:50 Big Plume Room

Northern Lights Conference Program and Guide

Calgary Alberta Canada September 29 – October 2, 2023



Dr Dewey Caron
Oregon, USA
Sponsored By:
Glory Bee

Explosion in Urban Beekeeping

Dewey Caron
WAS Director at Large

Sunday 1:30 Big Plume Room

Dr. Dewey M. Caron is Emeritus Professor of Entomology & Wildlife Ecology, Univ of Delaware, & Affiliate Professor, Dept Horticulture, Oregon State University. I had professional appointments at Cornell (1968-70), Univ of Maryland (1970-81), and U Delaware 1981-2009, serving as entomology chair at the last 2. I retired from Univ of Delaware in 2009 and moved to Portland, OR to be closer to my grandkids. I organized a WAS annual meeting and served as

President of WAS in Salem OR in 2010 following the 2009 Victoria meeting. Currently am member-at-large to WAS Board. I represent WAS on Honey Bee Health Coalition and am the principal author of HBHC Tools for Varroa Management and B MPs. In retirement I remain active in bee education, writing for newsletters, giving Bee Short Courses, assisting in several Master beekeeper programs, and giving presentations to local, state, and regional bee clubs. I am the author of Honey Bee Biology & Beekeeping, a major textbook used in University and Association bee courses, and have a new bee book (my 10th) The Complete Bee Handbook published by Rockridge Press. I have conducted a Pacific Northwest annual loss and management survey www.pnwoneybeesurvey.com for the past 10 years and a Pollination economics survey for the last 8.

Talking about responsible urban beekeeping - Sponsored by: www.glorybee.com.



Julia Common
British Columbia, Canada

Calm Hands In the Hive, Responsible Beekeeping in the City

Julia Common
WAS BC Director

Sunday 2:15 Big Plume Room

Dr. Julia Common is a BCHPA certified beekeeping instructor and member of the Canadian Association of Professional Apiculturists. Julia has been involved in beekeeping since her university days. What started as a summer job became first a hobby, and later a career. From 2012 through to 2019 she acted as Chief Beekeeper for the Vancouver-based society Hives for

Humanity, which she co-founded with her daughter Sarah Common. Urban beekeeping has led her to a number of epiphanies concerning the health and welfare of both bees and humans. Pollination work has led her to focus on how to better the conditions under which we expect our bees to live and work.

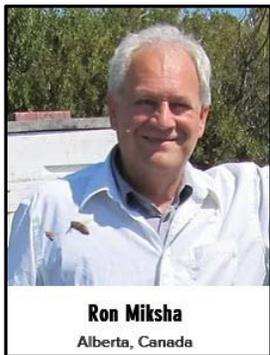
Julia is passionate about bees and teaching and she has participated in a number of research projects over the past decade. Since her retirement from Hives for Humanity in 2019, Julia has built the company, Bees Actually, to include nuc and honey sales, greenhouse and field pollination, consulting, presenting and teaching. Julia is a member of the Richmond and Langley bee clubs in the Fraser Valley, and of the BCHPA. She is also a member of the Native Bee Society of British Columbia, and recently become a member of the Western Apicultural Society.

Julia fosters collaborative thinking across many divides as we face the ongoing and future challenges for our bees and this wonderful art and practice of beekeeping. There are so many reasons to have calm hands in the hive - some obvious in the moment, others become clear only in hindsight!

Talking about the new beekeeper finding their way on their journey to becoming a beekeeper. It offers a few tips on how to handle and manage your bees with confidence even though at this stage there is a lack of field experience and knowledge. The interest in hobby beekeeping has led to a significant increase in urban honey bee colony density world wide . As might be expected , the narrative around honey bees is now changing and beekeepers need to be aware of much than what their bees need for survival.

Changing attitudes, urban development, city sprawl and climate change make for an interesting and challenging mix of factors to be considered as we tend our livestock. This presentation will review how the colony and the individual bees within that colony live and interact with both one another and the beekeeper.

Suggestions and examples of how best to assess their condition with minimal disturbance to the bees or humans. Errors in judgement, sensitive situations also will be aired ! There will be a few stories of things going sideways in the public eye with solutions and tricks to stay both on task and calm regardless of how the bees or humans are behaving. The back story.... how to enjoy our time with the bees and provide them with the best chance to thrive.



Does Urban Beekeeping Kill Native Bees?

Ron Miksha
WAS Alberta Director

Sunday 3:00 Big Plume Room

Ron Miksha is a bee ecologist working at the University of Calgary. He is also a geophysicist and does a bit of science writing and blogging. Ron has worked as a radio broadcaster, a beekeeper, and Earth scientist. (Ask him about seismic waves.) His commercial beekeeping spans six decades and five states and provinces. Ron is based in Calgary, Alberta, Canada.

Talking about how the rapid increase in urban honey bee colonies may have a detrimental effect on native bees. Research is essential to describe the ecological impact of urban beekeeping in communities such as Calgary, where the number of managed hives increased ten-fold in ten years, from 120 colonies in 2008 to 1250 in 2018.

My presentation will focus on the variation in floral resources used by honey bees and bumble bees. I collected pollen gathered by these different species at the same location and time. Pollen counts and floral identification showed a clear difference in the resources used by honey bees and bumble bees. The significance of this finding and a summary of other aspects of my research will be presented with an attempt to resolve whether "urban beekeeping kills native bees".

Urban Beekeeping Roundtable

Moderator: Andony Melathopoulos

Sunday 3:45 Big Plume Room

Soil and Bees: Symbiotic Gut Health

Renee Kusilek and John Turpin
Strong Microbials, Inc

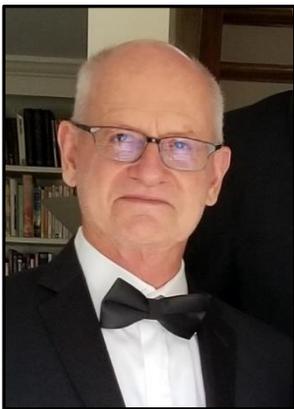
Sunday 4:45 Big Plume Room

Talking about the correlation in agriculture between soil health and the efficiency levels of honey bees for both pollination and honey production can be directly linked to the amount of synthetic herbicides, fungicides and pesticides that area used in modern agriculture.

Soil health for orchards and field crops can greatly be boosted my using natural methods and restoring microbial activity for natural plant health and disease resistance. Honey bees working in heavy commercial use agricultural areas will be exposed to harmful chemicals. By ensuring they have a healthy gut biome, survivability can increase

Our talk will focus on why and how to use microbes for both soil health and bee health for natural symbiotic health.

SUNDAY in the Crow Flag Room



Observation Hives: Every Home Should Have One

Frank Linton

Sunday 9:00 Crow Flag Room

You can learn more by living with your bees than you can by visiting them every week or two, a lot more. And the more you know, the better the beekeeper you will be. By keeping a small colony in a glass hive in your house, an *observation hive*, you will see more in a year than many backyard beekeepers see in a lifetime. And every year is different. In this talk I will show you how to keep bees in an observation hive and how much you can see and learn from them.



Health and Nutrition: Nutritional Ecology of Workers on a Changing Landscape

Juliana Rangel
Associate Professor of Apiculture

Sunday 10:30 Crow Flag Room

Dr. Juliana Rangel was born in Colombia, South America. She obtained her Ph.D. from Cornell University in 2010 and in 2013, she became Assistant Professor of Apiculture in the Department of Entomology at Texas A&M University. Her research program focuses on the biological and environmental factors that influence the reproductive quality of honey bee queens and drones, the health and population genetics of feral honey bees, and the quality and diversity of floral sources collected by honey bees in developed areas across the country. She is also an active member of the Texas Beekeepers Association and has spoken to numerous beekeeping associations in Texas and across the USA. She teaches two undergraduate courses, Honey Bee Biology and Introduction to Beekeeping, and also Professional Grant Writing for graduate students. She was the 2014 President of the American Association of Professional Apiculturists.



Queen Failure after Shipping: Could Humidity Play a Role?

Tracey Smith

Sunday 11:45 Crow Flag Room

Tracey Smith started beekeeping in Alberta in 2010, after graduating from University of Alaska Fairbanks. She founded Beanstalk Honey shortly after and spent the next ten years selling honey and value-added hive products in the Edmonton area. During that time, she developed a love for honey bee research and in 2022 she made the shift to doing research as a PhD student at the University of Alberta. She is interested in how humidity influences honey bee health.

Talking about the idea that queens exposed to extreme temperatures during shipping can have reduced sperm viability. Interestingly, non-extreme temperatures can impact queen acceptance into colonies as well, suggesting other variables may be interacting with temperature to damage queens. This study considers whether the interaction of temperature with humidity during shipping, called the vapour pressure deficit, can result in reduced queen acceptance and explores whether supplementing queens with water during shipping can improve outcomes. Shipping was simulated by incubating queens caged with attendants at different vapour pressure deficits for 2.5 hours. Attendants' body composition (fat, lean mass, and water content) was measured using quantitative magnetic resonance before and after simulated shipping and queen acceptance over three weeks was then tracked. Our results suggest queen acceptance is affected by water availability during shipping.



Kevin Inglin

New Jersey, USA

Sponsored By:

North of 60 Beekeeping

Alternative Hives - A Fun Study of Hive Designs

Kevin Inglin

EAS Master Beekeeper | Beekeeping Mentor | Podcaster

Sunday 1:30 Crow Flag Room

Kevin is a hobby beekeeper from central New Jersey. Married (Sharon) with two boys (Dan and Brian) who all pitch in to take care of the bees out in the yard.

They started beekeeping in May of 2008 and maintain anywhere from four to a dozen hives along with hives of different form factors (Top Bar, Layens, Warre, etc.). Sometimes he has many types in service and other times it is scaled down – it changes over time.

He actively participates with the Northwest New Jersey Beekeepers Association that serves Hunterdon and Warren Counties in NJ. He is a past president of the organization and serve as their webmaster and YouTube administrator.

He obtained EAS Master Beekeeper certification in July 2019 and he can be found training locally and regionally throughout the year on various topics and produce the Podcast (since April 2010) on the side throughout the year.
<https://www.bkcorner.org>

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Kamon Reynolds

Tennessee, USA

Sponsored By:

CDBA

Recipe to a Sustainable Apiary

Kamon Reynolds

Beekeeper

Sunday 3:00 Crow Flag Room

Kamon Reynolds is the co-founder (with his wife) of the North American Honey Bee Expo and Tennessee's Bees and has been keeping bees in North Central Tennessee for 21 years.

Kamon keeps 250+ hives with his wife Laurel. Kamon and Laurel also have filmed hundreds of educational videos to help new and veteran beekeepers around the world keep their bees successfully. Though Kamon does 99% of the talking, Laurel has been Beekeeping for 16 years and is an invaluable part of their Business Tennessee's Bees LLC. Tennessee's Bees specializes

in quality Bee Genetics, Pure Tennessee Honey, and Honeybee Education. Their videos can be found on <https://www.youtube.com/channel/UCkoAuqRak>

Kamon currently has 60,000 beekeepers that follow him on Youtube.



Calgary has a very active teaching and mentoring program for new beekeepers. It has to be that way.



Rarely will you see yellow sweet clover grown for hay anymore. This was in the 1970s on the western prairies. There is still a lot of this prolific honey plant growing wild by roadsides and on rugged hills.

Tens of millions of acres of the oil-seed crop canola blanket Canada's western prairies. Canola is the main source of Alberta honey. This photo was taken in mid-July, just 40 kilometres east of Calgary.



The Northern Lights Honey Show

The Northern Lights International Honey and Mead Competition offers a sweet array of rewards for both beekeepers and honey enthusiasts alike. Beyond the satisfaction of showcasing their skill and dedication, participants have the chance to earn prestigious accolades and recognition for the hard work and dedication that goes into producing exceptional honey. Winning entries will receive a coveted blue ribbon and a cash prize, signifying the highest quality honey or mead. As part of an international conference, this competition also provides an opportunity for beekeepers to exchange knowledge and best practices, helping beekeepers refine their techniques and enhance the quality of their honey, fostering a sense of camaraderie among participants. Additionally, the exposure gained through this conference can boost a beekeeper's reputation and open doors to new markets, ultimately benefiting their apiary and the appreciation of honey as a delectable and diverse culinary delight.



Winners will be announced early Sunday morning!

You have to enter to win, and if you win, your ribbon, certificate, and cash prize (\$150/\$100/\$50) will keep you smiling all the way home!

The five categories – light liquid, dark liquid, creamed, comb, and mead – have a place on the palette of every connoisseur.

If you're not entering, be sure to see the display. After the event, winning jars will be sent on to Edmonton for another judging event. Entries that don't place first, second, or third will be delivered to a local food bank, so even if the jar didn't win, someone will!

This Honey Competition is Sponsored by . . .



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A Bayer advertisement featuring a woman in a blue raincoat looking up at a starry night sky. The woman is wearing a blue hooded raincoat with white stripes on the sleeve. She is smiling and looking upwards. The background is a dark night sky filled with many small, bright stars. The Bayer logo is in the top right corner. The text "Advancing life" is in the upper center, with "Advancing" in white and "life" in red. A paragraph of text is in the bottom left, and the slogan "Science for a better life" is at the bottom.

Advancing
life



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Science for a **better life**

Northern Lights Conference Program and Guide

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Thank you, Sponsors!

Q – What’s a conference without Sponsors?

A – A big empty hall.

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These companies range from family-owned enterprises to big corporations. They came forward to support the participants at this conference. Being supported by our friends, neighbours, and colleagues is an honour for us.

We thank them for their generosity.

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Conferences are about learning, mentoring, and sharing. The Western Apicultural Society and Schneider Electric are pleased to support First Nations conference attendees with scholarships that help enable their participation at the Northern Lights Beekeeping Conference.



Trade Show Vendors

These are some of the companies displaying at the WAS/CDBA Conference



Joan's Beeswax
Candles



Northern Lights Conference Program and Guide

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Northern Lights Trade Show

Want to see what's new in bee equipment? Always wanted to learn about the research behind bee foods and supplements or learn more about a product? Come ask the experts.

**Conference participants
don't want to miss seeing
the 24 Trade Show vendors!**

Come meet the company representatives you normally only hear on the phone. Hang out with other beekeepers you haven't seen for a bit or meet new ones from across North America.

Come see how these vendors can meet beekeeping needs you never knew you had.

The Trade Show
Saturday and Sunday (Sept. 30 and Oct. 1)
8:30 am to 6:30 pm



The vendors you want to visit:

Alberta Beekeepers Commission
Andermatt Canada
Bayer Canada - Crop Science
bCatch Inc.
Beaver Plastics Ltd.
BeeMaid Bee Supplies
BHF Sales Ltd.
Eco Bee Box
Frank Linton Books
Global Patties
Hive IQ
Hiveworld
Nyati Apiaries
Joan's Beeswax Candles
Meadow Ridge Enterprises Ltd.
NOD Apiary Products
Paradise Honey
Project Bee
Propolis-etc...
Strong Microbials
The Honey Merchants
Vita Bee Health
Western Bee Supplies
Worker and Hive Bee Supply

This Trade Show will be fun, rain or shine!

Trade Show Vendors

These are some of the companies displaying at the WAS/CDBA Conference



UBA, THE UNITED BEEKEEPERS OF ALBERTA, IS PROUDLY
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United Beekeepers of Alberta

Trade Show Vendors:

Hot Links to Hot Companies!

| | |
|-------------------------------|---|
| Alberta Beekeepers Commission | https://www.albertabeekeepers.ca/ |
| Andermatt Canada | APIARY Andermatt Canada |
| Bayer Canada - Crop Science | Bayer CropScience Canada Crop Protection and Seeds |
| bCatch Inc. | Home Swarm Reacher |
| Beaver Plastics Ltd. | Langstroth Honeybee Brood Box — bpgrower.com |
| BeeMaid Bee Supplies | Bee Maid Bee Supplies Online Store |
| BHF Sales Ltd. | Beekeeping BHF Sales Ltd Oakbank |
| Eco Bee Box | Eco Bee Box – Modern Urban Beekeeping |
| Frank Linton Books | “Hive Tour” by members Frank Linton and Phil Frank: |
| Global Patties | Pollen Supplements for Honey Bees Global Patties Airdrie |
| Hive IQ | HiveIQ US - Beehives and Beekeeping Supplies - For Healthy Bees |
| Hiveworld | Hiveworld do beekeeping |
| Nyati Apiaries | Nyati Apiaries - Home (weebly.com) |
| Joan's Beeswax Candles | Joan's Beeswax Candles - Home (joans-beeswax-candles.com) |
| Meadow Ridge Enterprises Ltd. | Saskatraz Queen Bees Saskatoon Meadow Ridge Enterprises Ltd |
| NOD Apiary Products | Home - NOD Apiary Products Ltd. (nodglobal.com) |
| Paradise Honey | Paradise Honey Combining Nature and Technology |
| Project Bee | Project Bee – Everything Bees |
| Propolis-etc... | HOME - Propolis-etc... |
| Strong Microbials | Bee Probiotics Strong Microbials United States |
| The Honey Merchants | The Honey Merchants |
| Vita Bee Health | Vita Bee Health Honeybee Health Specialists (vita-europe.com) |
| Western Bee Supplies | Supplying Beekeeping Equipment - Western Bee Supplies, Inc. |
| Worker and Hive Bee Supply | Worker and Hive Bee Supply |



Alberta is known as the Wild Rose province. You can find these lovely little wild roses along roadsides throughout the summer. Bumble bees and other native bees love the wild rose, but you won't see many honey bees working these flowers – honey bees are usually distracted by clovers, alfalfa, and canola, which are in high-density patches and give more nectar per visit.

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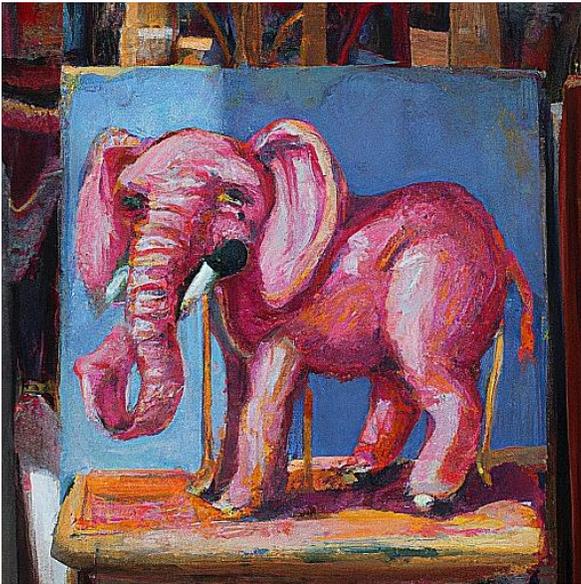
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Northern Lights Beekeeping Silent Auction



Maybe you don't need a pink elephant, but there are lots of great items you do need at the Silent Auction. Here's how it works. Walk around the table of donated items with an ink pen in hand. When you spot something you like, think of the highest number of dollars you can afford to pay - \$100 for a paperclip, for example. Write that number and your name on the sheet next to your treasure. Then, pay at the registration table when the auction closes mid-day on Sunday.

What's up for bid? An extractor, a custom painted brood box, the *Bad Beekeeping* book by Ron Miksha, gift cards, concert tickets, Apimaye hives, limoncello and honey chamomile honey grappa, beekeeping suits, candles, more gift cards and vouchers, and more – almost 50 items, in fact!

Many thanks to the donors, which includes the Grey Eagle Resort, Shaw, The Beehive, the Calgary Coop, Esther Suter, Ron Miksha, Ursula Da Rugna, William Senoma, David's Tea, Cultivatr, American Bee Journal, Apihex, Dancing Bee, The Co-operators Insurance, Bridgeland Distilleries, Richards Packaging, The Honey Merchants, Joan's Beeswax Candles, Strong Microbiotics, Eco Bee Box, Starbucks, Shoppers Drug Mart, Blue Grass, Home Depot, Save-On-Foods, and Wild Honey Boutique. And we hope we didn't miss anyone!

Proceeds from this fundraiser go to the Western Apicultural Society Scholarship Fund.



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Northern Lights Conference Program and Guide Calgary Alberta Canada September 29 – October 2, 2023



All Aboard the Bee Bus Tour

The Calgary-area bee and culture tour is Monday, October 2, the day after the Northern Lights Conference. If you haven't signed up, there are some seats still available. You can get on board. To do this, please follow this link, <https://northernlightsbeekeeping.rsvpify.com>, and select one of the two offerings.

Option 1: Wrap-Up Tour #1 - Departs from the Grey Eagle Resort at 9:30am Monday (\$97 Canadian)

This tour includes the Tsuut'ina Nation Culture Museum, urban hobby beekeeper's apiary, rural 10,000-colony commercial operation, meadery and geologic/cultural lookout.

Option 2: Wrap-Up Tour #2 - Departs from the Grey Eagle Resort at 10:30am Monday (\$85 Canadian)

This tour includes a visit to an urban hobby beekeeper's apiary, rural 10,000-colony commercial operation, meadery and geologic/cultural lookout.

Please note that lunch is not provided, but we will stop at 12:30 at [Stockman's Restaurant and Lounge](#), a nice Alberta eatery, where you will have about an hour and half to purchase and enjoy your lunch. This is a bus tour and includes up to a few hundred metres (yards) of walking.

Here are links to our stops:

[Tsuut'ina Nation Culture Museum](#)

[It's honey, Honey](#)

[Stockman's Restaurant & Lounge](#)

[Honey Meadows](#)

[Chinook Arch Meadery](#)

[The Okotoks Big Rock Erratic](#)

Please register as soon as you can to save your spot on the bus! Our lead guide and organizer for this tour is Cherie Andrews. Cherie has led tours in the past and is an energetic, knowledgeable partner with her husband in a honey and mead business.

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Little bits of about the Tsuut'ina and Calgary Area



The Grey Eagle has four dining spots at the resort. But if you are in the mood to explore, [Westhills Towne Centre](#) is just six minutes away by car, to the northwest. Booster Juice, Cobs Bread, Earls, Edo Japan, Famoso, Kinjo, KFC, Marble Slab Creamery, McDonald's, Mucho Burrito, Opa Souvlaki, and Subway are among the offerings at Westhills.



[Downtown Calgary](#), a fifteen minute drive, offers a wide range of entertainment. Clubs and pubs are in the city core. If you're in the mood for a rooftop patio, traditional steakhouse, sushi bar, Caribbean, Moroccan, Persian, Italian, Greek, Chinese, Lebanese, Ukraine, East India, Vietnamese, Mexican, Ethiopian, Thai, Scottish, or something even more exotic, you'll find your food in Calgary.



Calgary has [a dozen great museums](#). Something is sure to satisfy even the most discerning tastes in culture, art, history, music, and sports. Hundreds of antique autos are on display at [Gasoline Alley](#), Olympic sports history and memorabilia are at the 1988 [Calgary Olympic Park](#), aircraft at the [Hangar Flight Museum](#), art and history at the Glenbow, tanks and ships at the [Military Museum](#), and k.d. lang's wedding dress and Elton John's upright piano at the [National Music Centre](#).



[Tsuut'ina Nation Culture/Museum](#)

A ten-minute drive south of the Grey Eagle Resort, you'll find the cultural heritage centre, the Tsuut'ina Museum. This center for preserving and promoting Tsuut'ina cultural history can only be truly appreciated when led by one of the museum's knowledgeable guides.



[Banff National Park](#) is a must-see day trip. In just over an hour, you can be hiking in the mountains, bathing in hot springs, site-seeing from gondolas, or picking up unusually exotic gifts (soap stone art? ammonites? parkas?) in the quaint mountain town of Banff. Good food and good views abound in Canada's best known park.



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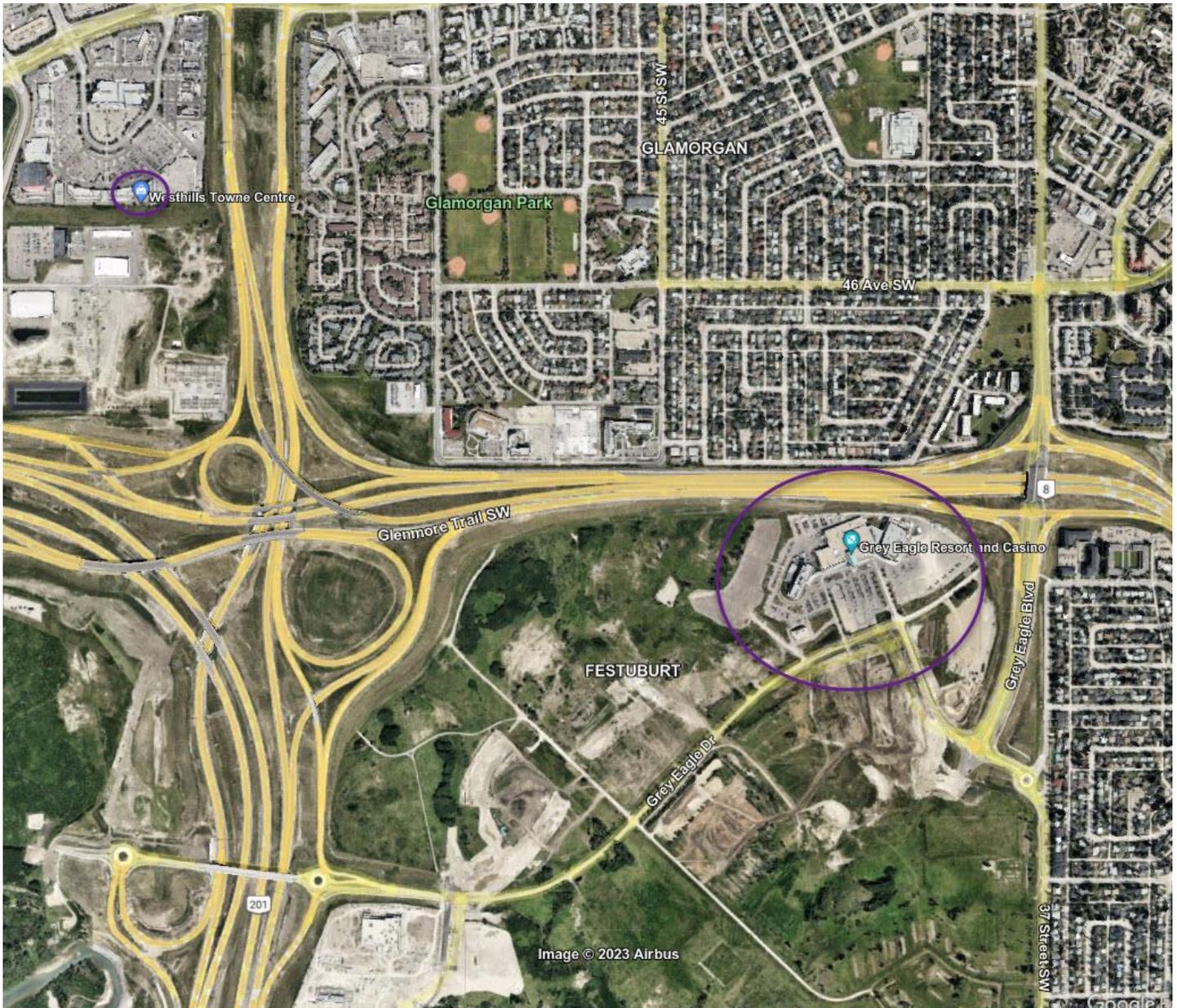
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Getting Around

Calgary has buses, trains, and the most-extensive bike pathways of any Canadian city. But ultimately, it's a driving city. Roads are many and wide, and just barely able to handle rush hour traffic. Give yourself a bit of extra time between 7:00 and 9:00 in the morning and 4:30 and 6:30 in the evening, though weekends are rather tame on our freeways. [Grey Eagle has driving directions on the web.](#) Here are a few maps to help you navigate, though you might want to keep your favourite phone map app at your side.



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