

ALBERTA BEEKEEPERS COMMISSION 2020 ANNUAL REPORT



GUIDING PRINCIPLES

The Alberta Beekeepers Commission:

- Commits to accountability and transparency to eligible producers
- Supports good stewardship, science-based innovation and research
 - Works in the best interest of Alberta beekeepers

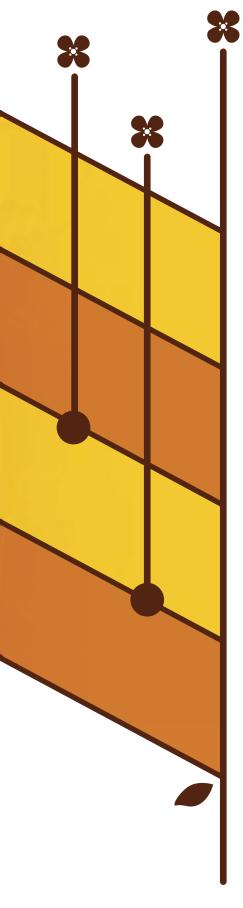




TABLE OF CONTENTS

- 01 President's Report
- 02 Board of Directors & Staff
- 03 ABC's Five Year Strategic Plan
- 03 Government Relations & Industry Affairs
- 04 Market Development, Promotion & Education
- 05 Producer Relations & Outreach
- 06 Research & Projects
- 09 Governance & Finance
- 10 Resolutions





PRESIDENT'S REPORT

Looking back at last year's annual report, it makes me chuckle how bad we all thought things were in 2019... Words can't describe the frustrations that 2020 has brought but I remain optimistic. Of the five years I have served on the board this has been by far the most difficult for me, not in terms of challenges we faced but rather not being able to effectively tackle those challenges in this new reality. Over the past year the board has had to make a number of difficult decisions. At the same time, support was provided, and guidance given from beekeepers, provincial and national industry organizations, as well as federal and provincial government politicians and staff who advocated tirelessly on behalf of our industry. COVID-19 exposed many vulnerabilities in Alberta's beekeeping industry. As we plan for the next 5 - 10 years the Commission will begin work to mitigate those vulnerabilities ensuring the long-term sustainability of our industry.

After months of preparation and planning, the Alberta Tech Transfer Program (TTP) officially launched in the spring hosting three successful workshops. Two new activities, Breeders Day and the Colony Hive Monitoring Program have been quite successful. We are excited to see this program grow over the next few years.

Board and staff also had an opportunity to participate throughout the year in consultations helping to guide the direction and focus of research funding in the future. The new entity, Results Driven Agriculture Research is one of several changes the government is making that will change its role to one of being solely a research funder.

I want to thank everyone who reached out to support us and provide advice. I want to thank our excellent staff for the job they have done this past year to keep things moving forward and continually finding solutions.

With the launch of the Alberta TTP and the restructuring of provincial research, I truly believe that we are well positioned to support the future health and sustainability of the Alberta beekeeping and honey industry.

JEREMY OLTHOF, PRESIDENT

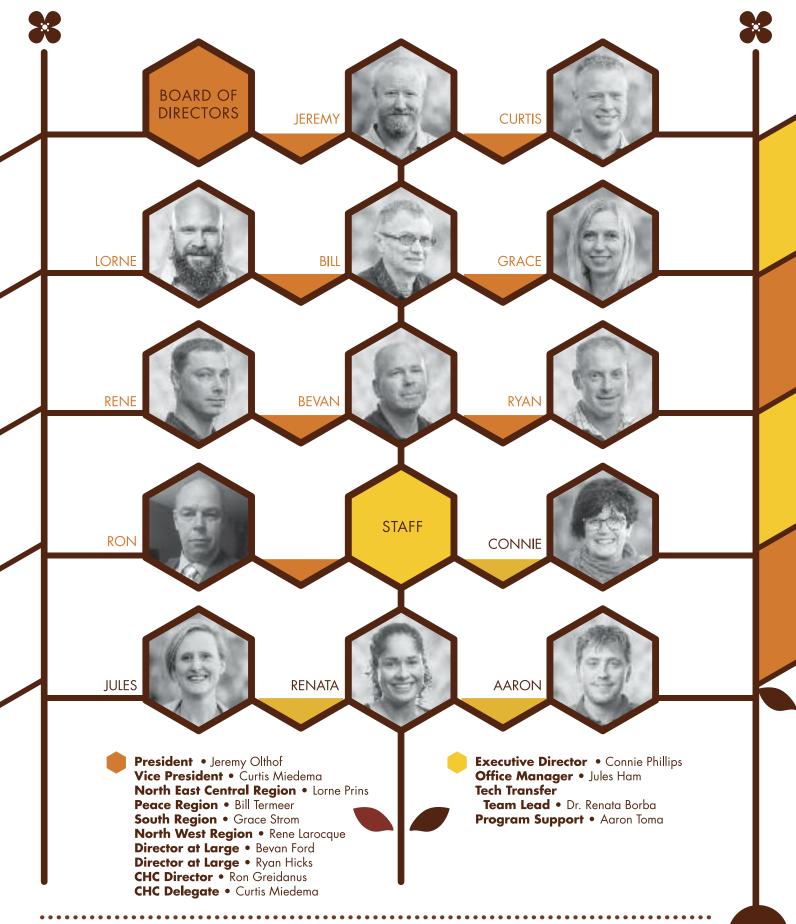


OUR VISION

We envision a vibrant, healthy, and growing Alberta beekeeping industry. We will achieve this through: Innovation, Education, Collaboration, and Research.

OUR MISSION

To develop and implement initiatives, and provide tools supporting Alberta Beekeepers, which improve the health of honey bee colonies, promote the quality of our products and services, and expand partnerships, markets and opportunities.





PROGRESS ON ABC'S FIVE-YEAR STRATEGIC PLAN



The 2020 crop year proved to be another extremely challenging year for Alberta beekeepers, with producers continuing to demonstrate resilience and perseverance following the devasting 2019 honey season.

Unprecedented is the word most often used to describe 2020. The COVID-19 pandemic has in some way impacted all of us. It has impacted us as individuals, our families, communities, and businesses.

The COVID-19 pandemic draws attention to many things, including our global connectedness, the role of 'big government', marginalisation, solidarity, and the 'unsung heroes' who keep essential systems running. For all of us, it tests our resilience, our ability to cope with turbulence, with the unpredictable developments in the wake of the extraordinary measures taken by governments to 'flatten the curve'.

COVID-19 has brought disruptions for virtually every industry, and beekeeping is no exception. From the delay

in workers' arriving, or no workers arriving at all, to no imported replacement stock and the herculean efforts of BeeMaid to ensure enough queens made it to Alberta, COVID has exposed our vulnerabilities and strengths. It is too early to tell what long-term changes may come from COVID-19 within agriculture and beekeeping. In the short term, the COVID-19 pandemic has brought into sharp relief the strategic importance of agriculture and the resilience of our industry.

The ABC continued to be guided by the strategic priorities set out in the 2019 – 2025 Strategic Plan and further advance the interests of the Alberta beekeeping industry in the areas of:

- Government relations and industry affairs
- Market development, promotion and education
- Producer relations and extension
- Governance and finance
- Research



GOVERNMENT RELATIONS & INDUSTRY AFFAIRS

Key Focus Areas:

Promoting and advocating for the interests of beekeepers and honey producers at the local, provincial and national levels, advising governments on ABC's strategic priorities, resolutions and other matters impacting the success of the industry. Continuously advocating for the reduction and streamlining of regulatory hurdles that negatively impact the beekeeping, honey and pollination industries, and collaborating on activities with our national and provincial partners and stakeholders to maintain and enhance the value and importance of Alberta's beekeeping industry.

Chair: Ron Greidanus Committee Members: Bill Termeer, Lorne Prins, Jeremy Olthof*, Aaron Toma, Connie Phillips

*Ex-officio

Highlights

Meetings with the Minister of Agriculture and Forestry Meetings with Minister Dreeshen and Chief of Staff Tim Schultz in the fall to raise the profile and awareness of the industry as well as discuss issues of key concern including:

- Impact of COVID-19
- Business risk management programs
- The future of research
- Bear depredation
- Bees on public land
- Adulteration of honey
- Safe Food for Canadians Regulations

COVID-19 Response

• With the onset of COVID-19, the majority of ABC's time and attention was directed at overcoming the challenges and far-reaching impacts this global pandemic created. The ABC team and board mobilized an effective lobby to represent the Alberta beekeeping industry, reaching out to several federal government ministries, national







organizations (in particular the Canadian Federation of Agriculture), as well as a number of provincial government ministries and agencies, to ensure that the challenges and important issues were brought forward. ABC maintained ongoing communication with the federal and provincial governments to ensure the issues impacting the Alberta beekeeping industry were being considered.

• The Commission prepared a brief at the request of MP Barlow's office for the House of Commons Standing Committee on Agriculture and Agri-Food on the Canadian Response to the COVID-19 pandemic.

Alberta Beekeeper Stock Replacement program

ABC successfully advocated for funding support for Alberta commercial beekeepers to assist with the costs for having to purchase replacement stock from domestic sources as a result of COVID-19. Through the Canadian Agricultural Partnership (CAP) Alberta Beekeeper Stock Replacement program, beekeepers could access funding support at 30% on a reimbursement basis to cover eligible expenses for having to purchase replacement stock as a result of COVID-19.

Business Risk Programs

ABC and Agriculture Financial Services Corporation (AFSC) worked together to facilitate a series of beekeeper consultations aimed at improving business risk programs for producers. In addition, ABC participated in a consultant lead full review of all AFSC business risk programs that impact beekeeping and honey production.

Alberta Health Care For Seasonal Workers

ABC staff continue to work with Alberta Health to advocate for eligibility and access to Alberta Health Care cards for seasonal workers.

Public Trust

ABC partnered with eight other industry groups on the Crop Sector Working Group (CSWG) to work on shared goals around environment and public trust.

Spraying Programs

ABC launched an inquiry with the Agriculture Fieldmen, Alberta counties, and municipalities with regard to their spraying programs.

Industry Memberships

ABC actively engaged with a range of key industry groups through memberships including:

- Canadian Honey Council
- Alberta Farm Animal Care

- Agriculture Federation of Alberta
- Manitoba Beekeepers Association
- American Honey Producers Association
- American Beekeeping Federation

Industry Events

ABC co-hosted the 8th annual Chops & Crops Reception for MLAs with nine other commissions and marketing boards.

Partnerships

ABC continued to build on and expand its network of partnerships with other industries and organizations including:

- Agriculture and Forestry
- Alberta Economic Development and Trade
- University of Alberta faculties of Science, Engineering and ALES
- University of Lethbridge
- Lakeland College
- Olds College
- Grant MacEwan University
- AgSafe Alberta
- Western Agriculture Labour Initiative (WALI)
- Alberta Farmed Animal Care
- National Bee Diagnostic Centre (NBDC)
- Alberta on the Plate
- Alberta Biodiversity Monitoring Institute
- Canadian Federation of Agriculture
- Honey Bee Health Coalition
- Applied Research Associations across the province
- Farming Smarter

MARKET DEVELOPMENT, PROMOTION AND EDUCATION

Key Focus Areas:

Maintain & enhance existing markets and explore new market opportunities and expanded use for honey, bee stocks & pollination.

Chair: Ryan Hicks

Committee Members: Bill Termeer, Bevan Ford, Jeremy Olthof*, Jules Ham, Connie Phillips





Highlights

International Market Development

- ABC showcased the Alberta beekeeping and honey industry at two internationally attended industry events including the 46th Apimondia Congress in Montreal, and the American Honey Producers Association Conference in Sacramento.
- Designed and developed a detailed Alberta honey export catalogue showcasing 23 export ready Alberta honey producers and packers.

Domestic Market Development

• ABC completed a third domestic market opportunities project which also took into account the impact of adulteration and cheap imported honey on the Canadian domestic market. The final project identified a potential opportunity to brand a distinct Alberta honey. Work is underway to pursue this opportunity.

Showcasing Alberta Honey

- Sponsored four industry events that helped to raise the profile of Alberta honey and beekeeping in Alberta.
- Shared over 5000 samples of pure Alberta honey to industry and consumers through a number of industry and community events.
- Participated in the annual Alberta on the Plate event in August 2020, connecting local Alberta honey producers to local restaurants and showcasing Alberta honey on menus.
- Facilitated the judging of the 2019 Farm Fair honey contest featuring some of Alberta's best honey.

Beekeeper Stories

Introduced a new beekeeper and honey producer profile series in Alberta Bee News magazine, highlighting the unique stories and passion of beekeeping in Alberta.

Social Media

Increased social media presence and engagement across all our social media channels, reaching:

- 950 followers on Facebook
- 95 followers on Twitter (NEW)
- 582 followers on Instagram
- 28 followers on YouTube TTP channel (NEW)

Education

Hive Next Door Campaign

Successfully executed the Hive Next Door Alberta honey education campaign, co-funded by the CAP Public Agriculture Literacy Grant.

Curriculum Development

Met with five post Alberta secondary institutions to discuss developing curriculum opportunities in beekeeping and related areas.

Bursaries

Funded three \$1000 educational bursaries, supporting three talented individuals to further their education in the area of bees and/or beekeeping.

Blog

Launched a new educational blog series on the ABC website

PRODUCER RELATIONS & OUTREACH

Key Focus Areas:

Develop and implement initiatives and programs to ensure Alberta beekeepers have the most up to date information on industry regulations and requirements that are relevant to their operations. Foster networks and partnerships that benefit the growth and sustainability of the Alberta beekeeping industry.

Chair: Curtis Miedema

Committee Members: Ryan Hicks, Jeremy Olthof*, Jules Ham, Aaron Toma, Renata Borba, Connie Phillips

Highlights

Producer Engagement

Throughout the year the ABC has engaged producers in a number of ways to gather important insight and feedback on key areas that producers identified as impacting the industry. Initiatives included:

 ABC bear depredation survey and liaison, with producers contributing valuable data that was used to develop the framework for advancing our position with AFSC and Alberta Fish and Wildlife.







• Facilitating a series of consultation opportunities with AFSC enabling producers to contribute their feedback on how to improve AFSC programs to better support the beekeeping industry.

COVID-19

- ABC supported eligible producers with the timely communication of the latest COVID-19 protocols, travel and health information for TFWs, bee and queen stock availability, available funding programs, and valuable support resources throughout the COVID-19 pandemic, including supporting individual beekeepers with responses and solutions to specific issues and barriers.
- Mailed out valuable COVID-19 support resources and posters to support beekeeping operations with communicating COVID-19 safety protocols.
- Created beekeeper specific page on ABC website to support the timely communication of latest information.

2019 Annual Convention

The annual convention once again offered a wide range of topics covering everything from labour, to sensory evaluation of honey, to overwintering bees. This important industry event enabled Alberta beekeepers to connect with industry, learn, and discover the latest in research, innovation, marketing, and products and services.

RESEARCH AND PROJECTS

Key focus areas:

Strategically allocate Commission funds to projects with the greatest potential to positively impact Alberta's beekeeping industry.

Chair: Grace Strom Committee Members: Rene LaRocque, Curtis Miedema, Jeremy Olthof*, Renata Borba, Connie Phillips

Highlights

Research Projects - Completed

Seven ABC supported projects were completed during the 2019/20 fiscal year:

- 1. Economics of Pollination
- 2. Research into Synthetic Biology Applications for Bee-Related Issues
- 3. NMR Quality System Benefits Study
- 4. Building Food Safety Capacity and Knowledge
- 5. Honey Spray Drying scale up and sensory





- 6. Public Literacy Telling Our Story
- 7. Queen Shipping Container prototype

 $Copies\ of\ these\ reports\ can\ be\ found\ on\ the\ ABC\ website$

Research Projects – Underway

Seven ABC supported projects are currently underway:

1. Comprehensive Comparison of Therapeutic Efficacy of Fumagillin to pre & pro biotics

Total project value: \$57,500

Partners: University of Saskatchewan, MITACS, SBDC

This project is being done in partnership with Saskatchewan Bee Development Corporation and the Western College of Veterinary Medicine with funding from the Saskatchewan Agriculture Development Fund, hives donated by SBDC and funding from ABC.

2. Improving Energy Efficiency in Alberta's Commercial Beekeeping Industry

Total project value: \$139,900 (Funded in part by CAP)
Partners; Dandelion Renewables

Improving energy efficiency – using less energy to provide the same level or improved output and service is widely recognized as the most cost effective and readily available means to address numerous energy related issues. This project aims to assess energy efficiency and utilization, as well as determine what practical green and traditional energy options exist to improve energy efficiencies on commercial beekeeping operations.

3. A Study of Foulbrood in Canadian Apiaries

Total project value: \$510,000

Partners: Alberta Agriculture and Forestry, NBDC

ABC has funded this work jointly with Manitoba Beekeepers and Agriculture and Forestry. The project is being carried out by the National Bee Diagnostic Centre.

4. Honey Spray Drying & Plasti-cell Recycling

Total project value: \$5,000

Partners: Alberta Agriculture and Forestry

Continued work on spray drying honey. Plasticell recycling project is testing the potential of recycling and repurposing used plasticell. The initial testing has been completed with good results.

5. Tech Transfer Program

Total project value: \$667,375

Partners: ABC (Funded in part by the Government of Canada and the Government of Alberta through the Canadian Agricultural Partnership)

Establishing a Tech Transfer Program (TTP) in Alberta. *See TTP report.*

6. Comprehensive Beekeeping Education Program for Alberta

Total project value: \$106,270

Partners: Alberta Farm Animal Care Association

This project will support the development and delivery of a comprehensive Alberta beekeeping educational training program and the creation of supporting educational materials. The training program and educational resources will increase the awareness and adoption of appropriate biosecurity practices as recommended by industry organizations and supported by research.

7. Mass Storage of Summer-mated Queens During the Winter in Alberta

Total project value: \$127,238

Partners: ABC (Funded in part by the Government of Canada and the Government of Alberta through the Canadian Agricultural Partnership), Pollinators fund, and CBRF (Canadian Bee Research Funds)

The main purpose of this project is to establish a successful management practice to mass-storage queens during winter in Alberta. This best-management practice document aims to offer queen producers the most effective and low-risk management practice to overwinter queens in Alberta. This deliverable will reduce the industry dependency toward importation of queens, promote a sustainable beekeeping industry by providing the tools to beekeepers to have high quality local genetic stock available in early spring, and promote the local queen breeding industry.







Farmer-led Research and Results Driven Agriculture Research

The Alberta government is moving ahead with plans to reduce its funding and involvement in agricultural research. Where possible research staff will be transitioned to universities or colleges in Alberta. Through late winter and early spring, the government hosted a number of consultations with producers and industry organizations on Farmer-led research which explored several types of funding models. This was followed by the formation of RDAR (Results Driven Agriculture Research). RDAR will be tasked with guiding Alberta's agriculture research priorities to ensure they reflect the needs of farmers, ranchers and others in the agriculture industry. ABC participated in a number of policy setting meetings to establish RDAR's grant agreement and review processes, along with other producer groups, academia and applied research associations. A permanent board will be in place January 2021.

Additional value-added projects developed through collaboration with post secondary institutions

University of Alberta

ABC collaborated with University of Alberta 4th year Mec Eng. students on six industry related projects including:

- Design of an automated honey filling machine
- High Efficiency Honey Processing Facility
- Design of a Queen Bee Shipping Container
- Spin Float Design of an Improved Honey/Wax Separator
- Honey Tote Hydraulic Tilter
- Table-top Honey Dispenser

Two of these projects have moved beyond the design stage: **1.** ABC funded SAIT to test the design and build a protype of the Queen Bee Shipping Container

2. ABC is working with Stanfos Inc. to identify process control improvements in honey production.

Grant MacEwan

ABC is working with Grant MacEwan strategic marketing students to develop a marketing strategy to uniquely position a brand of pure Alberta honey.





GOVERNANCE AND FINANCE

Ensuring all activities of the Commission are carried out with a high level of excellence, including adhering to best practice governance and financial principles. Liaising with ABC's appointed accountants during the annual audit and review engagement. Demonstrating commitment to ensuring ABC service fees are used for the advancement of the mandate of ABC.

Chair: Jeremy Olthof Committee Members: Curtis Miedema, Lorne Prins, Connie Phillips

Highlights

Regulations

• Executive Committee and Commission staff worked with Marketing Council to review the three regulations that govern Commission operations and activities. The draft is with Marketing Council for review.

Finance

• Executive Committee and Commission staffed have worked throughout the year continuing to improve and streamline the Commission's financial processes.

ALBERTA BEEKEEPERS COMMISSION 2019/20 • EXPENDITURES •









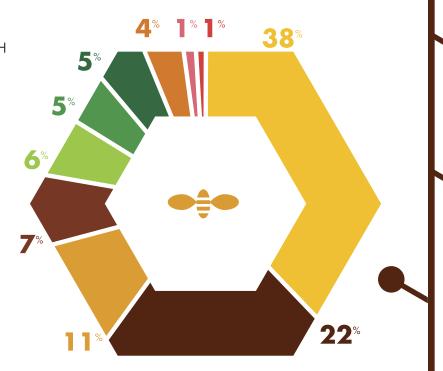












32

RESOLUTIONS



1. Modify Safe Food for Canadians Regulations (SFCR) for Packers APPROVED

Be it resolved that the ABC work with the CHC to request that the CFIA establish an additional category for beekeepers called Producer Extractor, allowing beekeepers to develop a simplified preventative control plan that can focus on traceability, buildings, bee equipment, extraction line equipment, shipping containers (barrels and totes), water quality, and sanitation in Producer Extractor licensed facilities and still meet the SFCR. ONGOING

2. Lobby federal and provincial governments to hold imported honey to the same food safety and regulatory standard to which domestic honey is held APPROVED

The Alberta Beekeepers Commission work with the Canadian Honey Council to lobby the federal and provincial governments to review the current import regulations, testing protocols and country of origin labeling requirements for honey imports into Canada with the goal of ensuring that any imports into Canada are held to the same standard as required by domestic honey producers; SFCRs ONGOING

3. Expansion of the CFIA honey surveillanceAPPROVED

The Alberta Beekeepers lobby the provincial and federal governments and other avenues to have the Canadian Food Inspection Agency pursue much wider surveillance of honey in Canada using Nuclear Magnetic Resonance testing. ONGOING

4. CFIA inspections of licensed honey packing plants

The ABC via the CHC request CFIA to demonstrate how inspection of licensed honey packing plants under the SFCA/R are sufficient to prevent the use of adulterated imported honey in retails and industrial packs ONGOING

5. Honey quality assurance program APPROVED

The Alberta Beekeepers continue to investigate the feasibility of instituting a honey quality assurance and marketing program that involves honey adulteration testing to protect and highlight the quality of Alberta honey Completed two projects looking at markets and the impact of adulteration. In addition, provided letter of support to P Awram and L Foster seeking funding through NSERC to build a database

6. Alberta honey database APPROVED

The Alberta Beekeepers help organize and fund honey sample collection throughout Alberta for the generation of an Albertan Honey database including submission to the world NMR database.

Provided letter of support to P Awram and L Foster seeking funding through NSERC to build a database

7. Equalizing the regulatory burden on honey imports APPROVED

The Alberta Beekeepers lobby to have the Canadian Border Services Agency subject all imports to a full inspection and require Nuclear Magnetic Resonance testing that ensures that it meets the same standard as Canadian honey and that the Alberta Beekeepers investigate the possibility of an anti-dumping case against imported honey.

ABC met with staff with the Trade and Transportation Sector, Agriculture and Forestry and staff with International Trade Policy, Economic Development, Trade and Tourism to discuss risks potential, options of antidumping claims. Guidance was provided and both ministries committed to investigating further and found nothing at the time.

8. Bear depredation APPROVED

The Alberta Beekeepers Commission continues to petition the Alberta government to amend the Wildlife Compensation Program to include coverage for hive destruction by bear activity ONGOING

9. Bee Inspector APPROVED

The ABC ask/lobby AF to consider hiring permanent bee inspector staff. **COMPLETE**

10. Move administration of APP to FarmCash APPROVED

The Alberta Beekeepers Commission will discontinue their role as an administrator of the Advanced Payment Program starting with the fall 2020 program.

COMPLETE

Two options for producers to continue to access the APP program: Farm Cash program, run through Alberta Wheat and Canadian Canola Growers Association have been made aware that ABC will no longer be administering APP.

11. Bee Plan Regulatory Review APPROVED

The Alberta Beekeepers Commission work with Marketing Council to undertake a review of the current Bee Plan Regulation and bring recommendations for changes to Eligible Producers. *Changes submitted to Marketing Council for review and comment.* ONGOING







12. Additional CHC Delegate APPROVED

The Alberta Beekeepers Commission request additional voting delegates to the CHC board. ONGOING

13. Equal Representation at CHC DEFEATED

The ABC hold back 50% of this year's funding, until CHC agrees to a new restructuring formula that is solely based on hive numbers.

Therefore, if Alberta has 312,200 hives (Stats Can 2018), Alberta would get an equivalent percentage of the votes.

The number of Alberta delegates could stay at two. Voting would change from voting based on number of delegates to the number of hives they represent. Other provinces should also be encouraged to restructure their provincial organizations to better represent their commercial producers, who make their living from beekeeping. If CHC is unwilling to negotiate a new structure based on hive counts by the November 2020 AGM, Alberta should consider withdrawing from CHC.









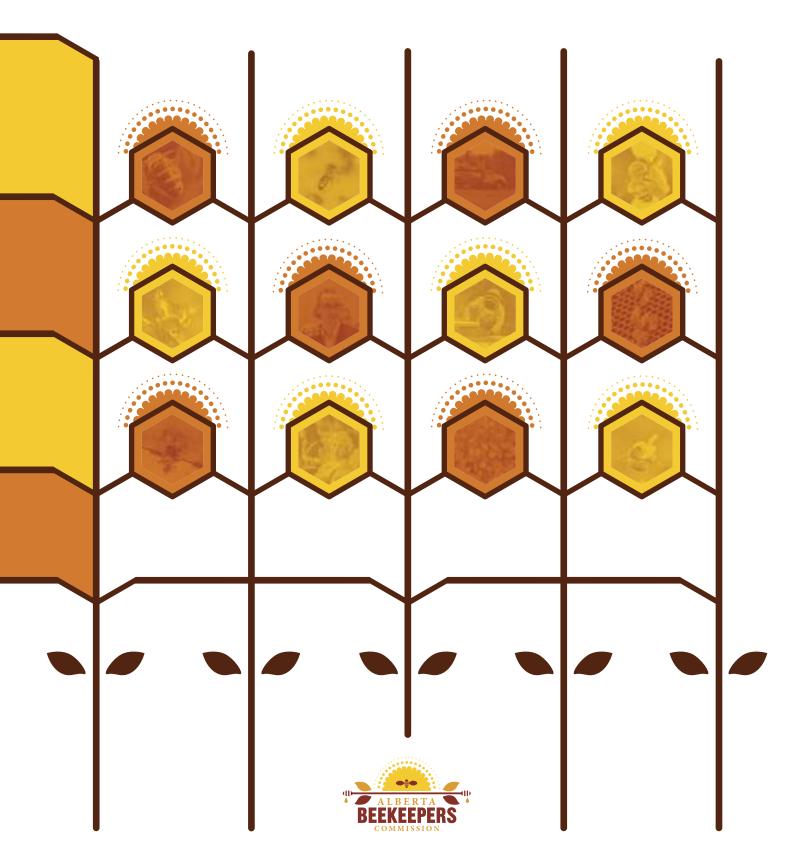




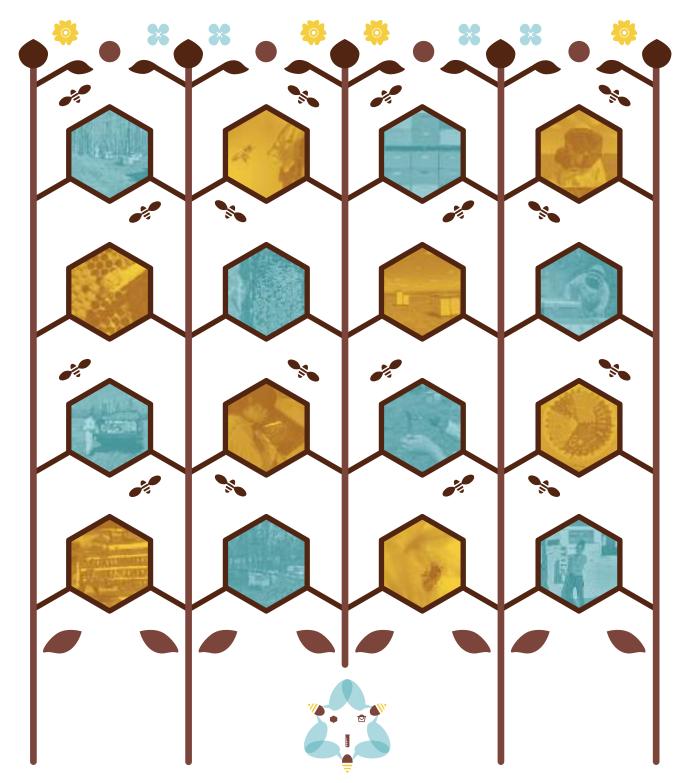




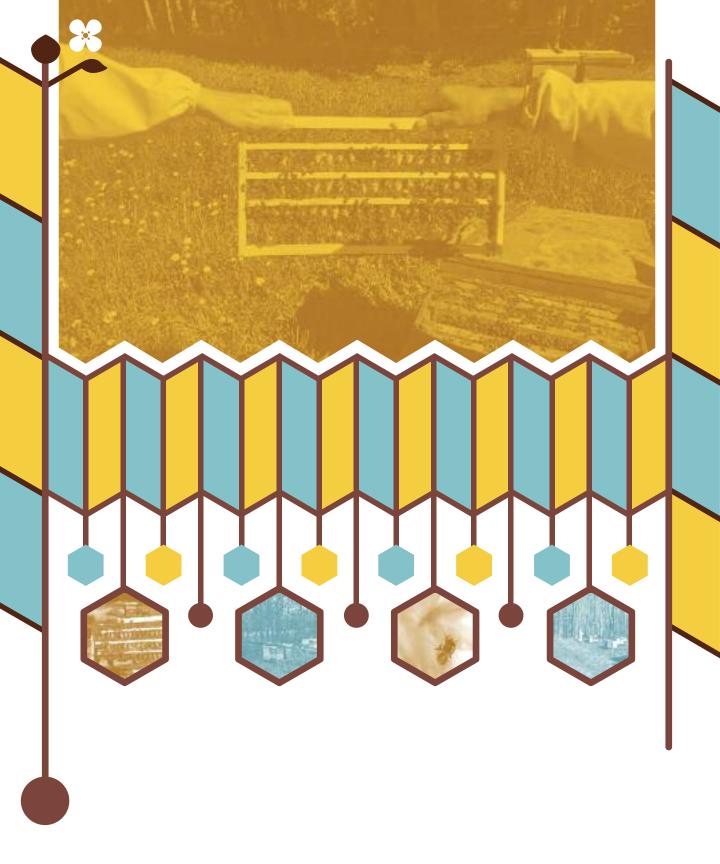




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ALBERTA TECH TRANSFER PROGRAM 2020





INTRODUCTION

As chair of the Alberta Tech Transfer Program (TTP) Steering Committee, I am so proud to acknowledge the valuable accomplishments the TTP team have made over the past 12 months. I would like to thank Dr. Renata Borba, TTP Lead, Nicole McCormick, Apiculture Technician, Aaron Toma, Program Support, and Kara Beinert, seasonal support for all their hard work and dedication towards developing Alberta's first Tech Transfer Program.

I would also like to acknowledge and thank the TTP Steering Committee members including Jeremy Olthof, Kevin Nixon, Echo Chandler, Shelley Hoover, Steve Pernal, and Connie Phillips for sharing their valuable expertise, insight, and time in support of the TTP.

It has been a pleasure to work with such a dedicated group of individuals.

It is with great confidence that I look forward to Renata's second year as TTP Lead. I know that her contributions will lead to a strengthened, more sustainable industry.

Our warmest wishes for another great year Renata.

GRACE STROM

Greidanus Honey Mill Chair, TTP Steering Committee Director, Southern Region

ABOUT

In March 2019, the Alberta Beekeepers Commission (ABC) was successfully awarded a four-year, \$667,375 grant through the Canadian Agriculture Partnership (CAP) Risk Mitigation Program to establish Alberta's first Tech Transfer Program (TTP).

Adding Value To The Alberta Beekeeping Industry The TTP team, led by Dr. Renata Borba and supported by the TTP Steering Committee and ABC staff, is committed to providing the Alberta beekeeping industry with the support, expertise, training, tools and colony health monitoring services to support and improve the health and sustainability of the Alberta beekeeping industry.

The benefits of an integrated hive management program have been shown to improve bee health, pollination, honey production, and reduce annual bee losses, use of antibiotics and overall operating costs for beekeepers.











2019/2020 MILESTONES

In the short time that the TTP has been operational, the TTP team has successfully developed and implemented a number of initiatives that delivered on the TTP's three main objectives:

Objective One: Build a program for Alberta's beekeepers which would provide the tools they need to improve/maintain colony health.

Outcome: The creation of an Integrated Hive Management Program featuring two key components:

1. Colony Health Monitoring Program (CHMP):

A total of 87 apiaries (25 beekeeping operations) were sampled across the province 2-3 times during the year: spring, summer and fall. Due to the high EFB incidence, additional colony inspection, sampling and diagnosis was also performed at the beekeeper's request.

Producers participating in the CHMP received individualized sampling results and data analysis, and had the opportunity to participate in a webinar to gain insight from the overall CHMP results.

2. Integrated Pest Management (IPM) Training:

A total of six beekeeping operations registered for IPM training. Training for workers and owners focuses on bee biology, disease identification, prevention and control/treatment procedures. Unfortunately, due to the COVID-19 pandemic, the launch of this program was postponed to 2021.

Objective Two: Develop an educational platform to disseminate and transfer knowledge, keeping all beekeepers (big or small) up to date with the latest bee-related science and technologies of this program.

Outcome: A number of initiatives were developed to support this objective including:

1. Workshops:

The TTP organized and hosted three successful workshops in early spring including:

- Queen Breeders' Day
- Integrated Pest Management (IPM) Workshop
- Southern Alberta Beekeepers Meeting

2. Monthly 'Hive-side Chat' Webinar Series:

The Hive-side-chat creates an opportunity for beekeepers throughout the province to learn and discuss various topics related to honey bee health, biology, pathology and more.

3. TTP YouTube Channel:

To date, 20 educational and instructional videos have been uploaded to the TTP's YouTube channel, including presentations from all events as well as the webinar series.

4. Factsheets and Extension Materials:

In addition to monthly contributions to the Bee News, numerous extension materials were developed throughout the year including:

- Queen rearing wheel
- Varroa sampling and monitoring fact sheet
- Nosema sampling and analysis
- COVID-19 guidelines for beekeepers















RESEARCH PROJECTS

5. TTP Website:

The TTP webpage was launched early April. The webpage is a one-stop location where beekeepers can easily access TTP information including programs, events, workshops, research projects and educational materials.

Objective Three: Build recognition and trust in the beekeeping industry, as this is critical to the success of the tech transfer program.

Outcome: A number of activities were undertaken to support this objective including:

1.Farm Visits:

Over the first few months of the TTP, Renata travelled throughout Alberta and visited with 18 commercial beekeepers at their beekeeping operations. The goal of the one-on-one meetings was to introduce the program, learn more about Alberta beekeeping operations, and gather information about the different challenges each operation is facing. These meetings and the information gathered helped to direct the TTP's operational plan for the 2020 season.

2. One-on-One Coaching and Mentoring:

Throughout the year, the TTP has been meeting with producers on an individual basis providing support and information as needed.

Mass Storage of Summer-mated Queens During the Winter in Alberta

Since its establishment, the TTP was able to leverage funds through the successful submission of proposals to the Canadian Agriculture Partnership Adapting Innovative Solution in Agriculture, Canadian Bee Research Funds, and the Pollinators Funds to undertake the "Mass Storage of Summer-mated Oueens During the Winter in Alberta" project. This project commenced in August, with the first group of banked queens to be overwintered this coming winter.

Biosecurity Training Tools

In collaboration with Alberta Animal Farm Care, we have obtained another Canadian Agriculture Partnership grant to support the development of biosecurity training tools.









APICULTURE TECHNICIAN

The TTP received funding through Agriculture Agri-Food Canada and Employment and Social Development Canada to hire seasonal technical support. Nicole McCormick joined the TTP team over the spring and summer, contributing valuable skills and support to the TTP.

POLLINATION

The health and sustainability of Alberta honey bees is vitally important to the success of both Alberta beekeepers and the canola seed industry. Bees managed by Alberta beekeepers provide essential pollination services for Alberta's hybrid canola seed production. Without bees, hybrid canola seed production would not be possible. Without the seed, farmers couldn't grow 21.3 million acres (2019) of canola, providing the foundation for a \$25 billion industry.

Over the last 12 months, the TTP have taken an active role in engaging with Alberta beekeepers who offer pollination services to the canola industry by forming a 'pollination committee,' designed to deliver best outcomes for both beekeepers and the canola industry. The pollination committee consists of 15 beekeeper from across the province, and five partners from across the hybrid canola seed industry including Bayer Crop Science Inc, Corteva, BASF, Nutrien Ag Solutions, and HyTech Seed Production.

In 2020, the TTP delivered a tailored program of Colony Health Monitoring (CHM) services to the 15 beekeepers on the committee. This work was funded though the support and contribution of the five seed companies, who pay an annual pollination levy to the ABC based on the number

of hives contracted for pollination each year. This commitment to reinvest the funds back into the industry benefits both parties.

We wish to thank Bayer Crop Science Inc, Corteva, BASF, Nutrien Ag Solutions, and HyTech Seed Production for their valuable contribution to supporting this program and fostering the health of honey bees and the beekeeping industry in Alberta.

"WHAT'S NEXT?"

As TTP approaches the end of the first year of the Integrated Hive Management Program, the TTP will gather feedback from participating beekeepers, work and brainstorm on potential changes/improvements and plan accordingly for year two.

