







## 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:

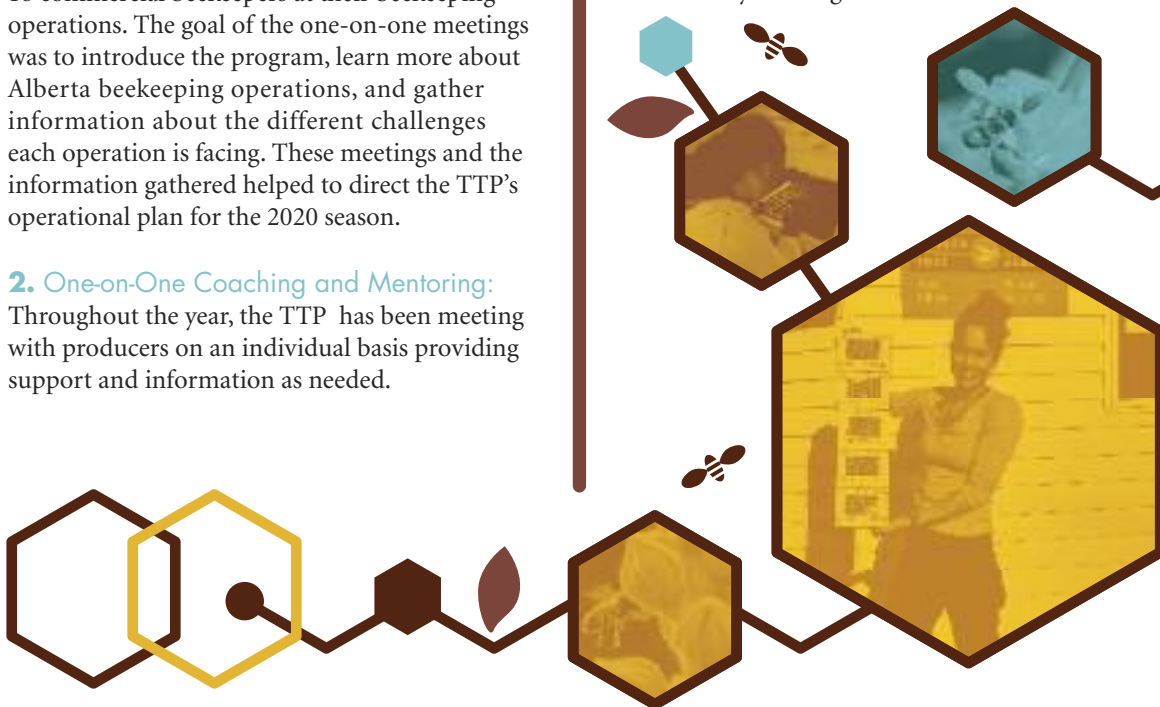
Throughout the year, the TTP has been meeting with producers on an individual basis providing support and information as needed.

### 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 Queens 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.

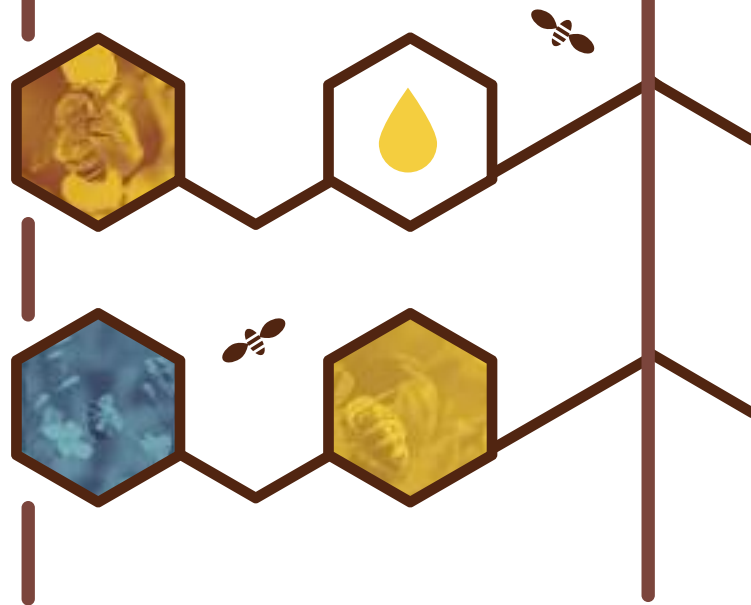
In 2020, the TTP delivered a tailored program of Colony Health Monitoring (CHM) services to the 15 beekeepers on the committee. This work was funded through the support and contribution of the five seed companies, who pay an annual pollination levy to the ABC based on the number

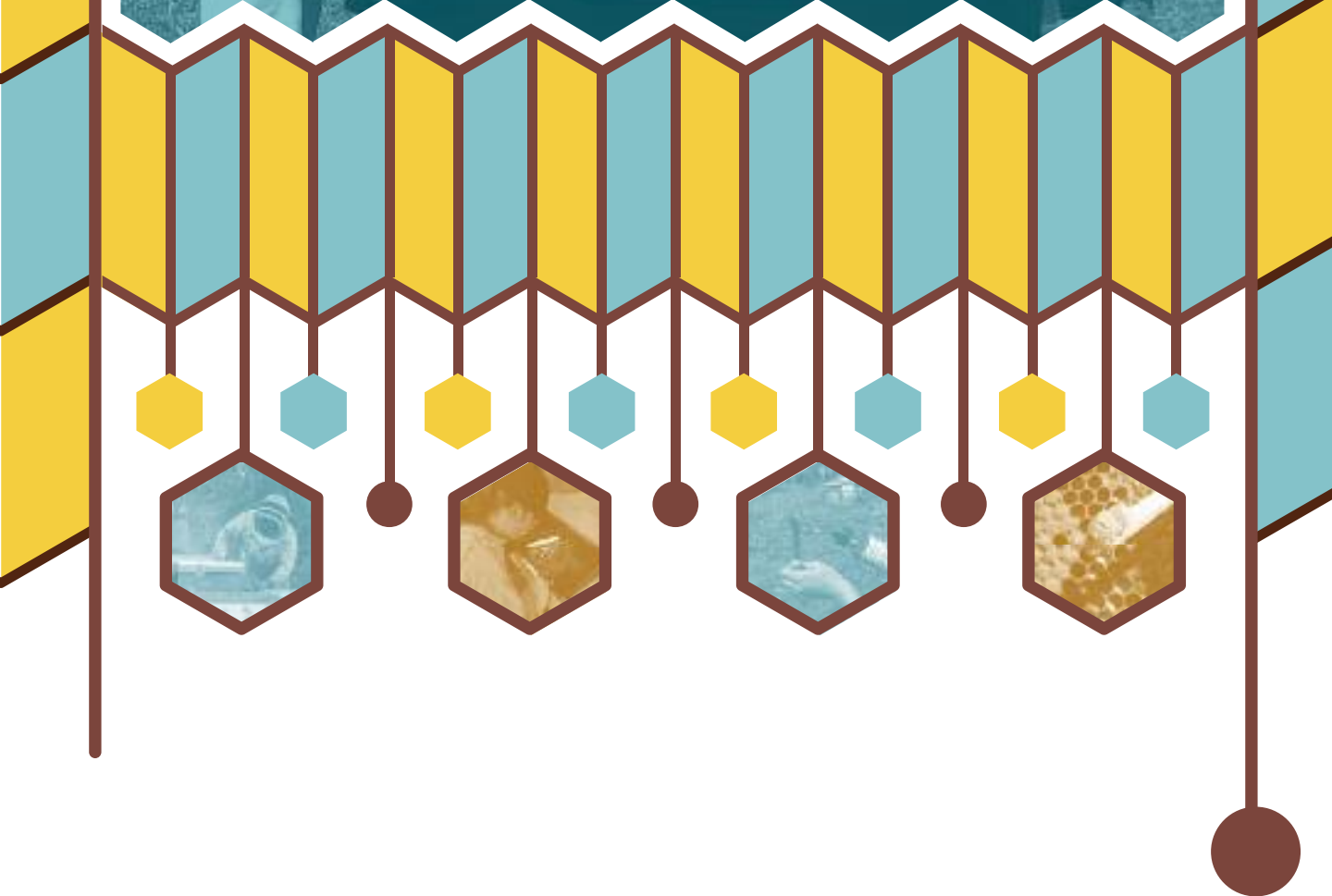
of hives contracted for pollination each year. This commitment to reinvest the funds back into the industry benefits both parties.

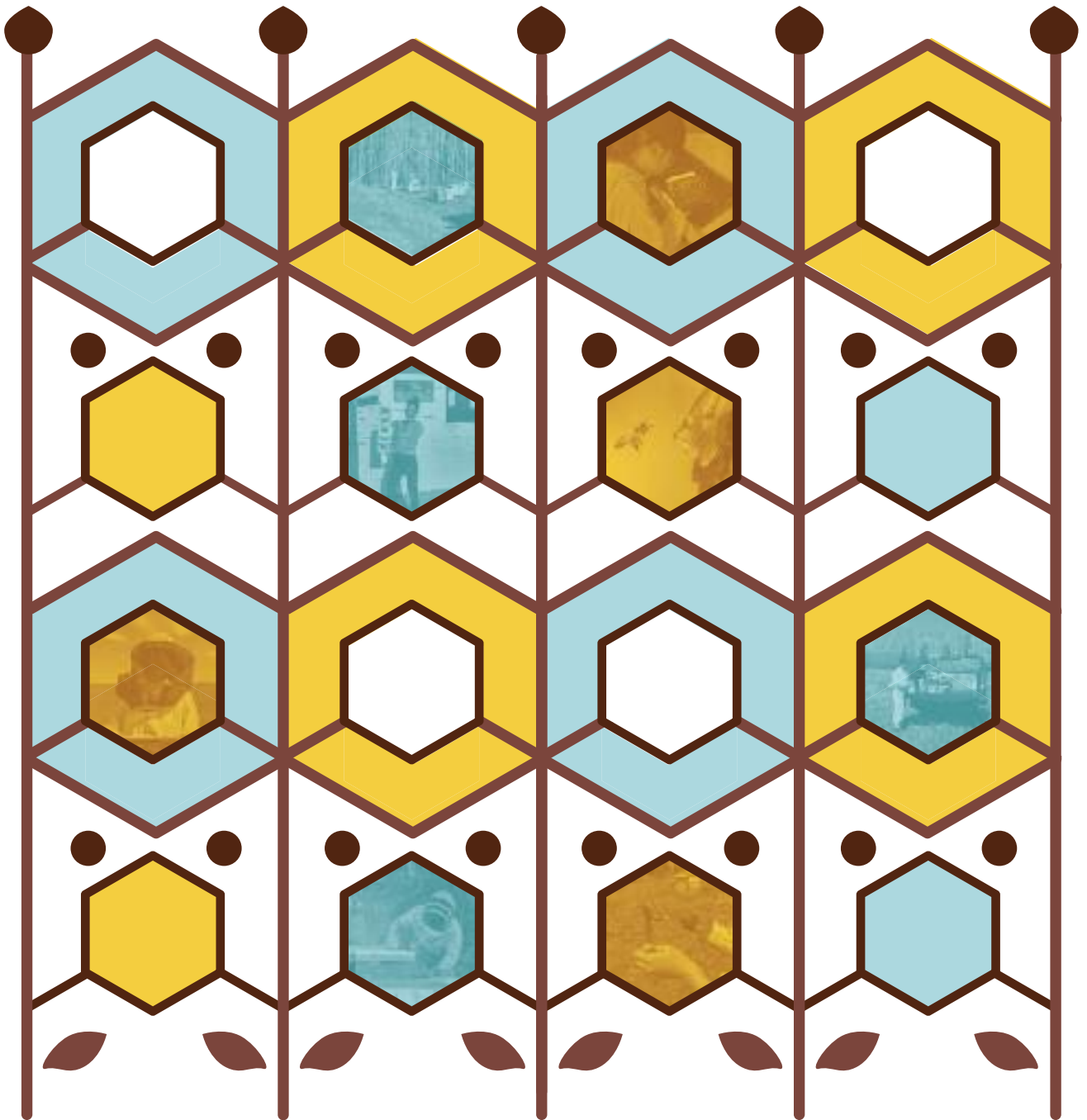
We wish to thank Bayer Crop Science Inc, Corteva, BASF, Nutrien Ag Solutions, and HyTech Seed Production for their valuable contribution to supporting this program and fostering the health of honey bees and the beekeeping industry in Alberta.

## "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.







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