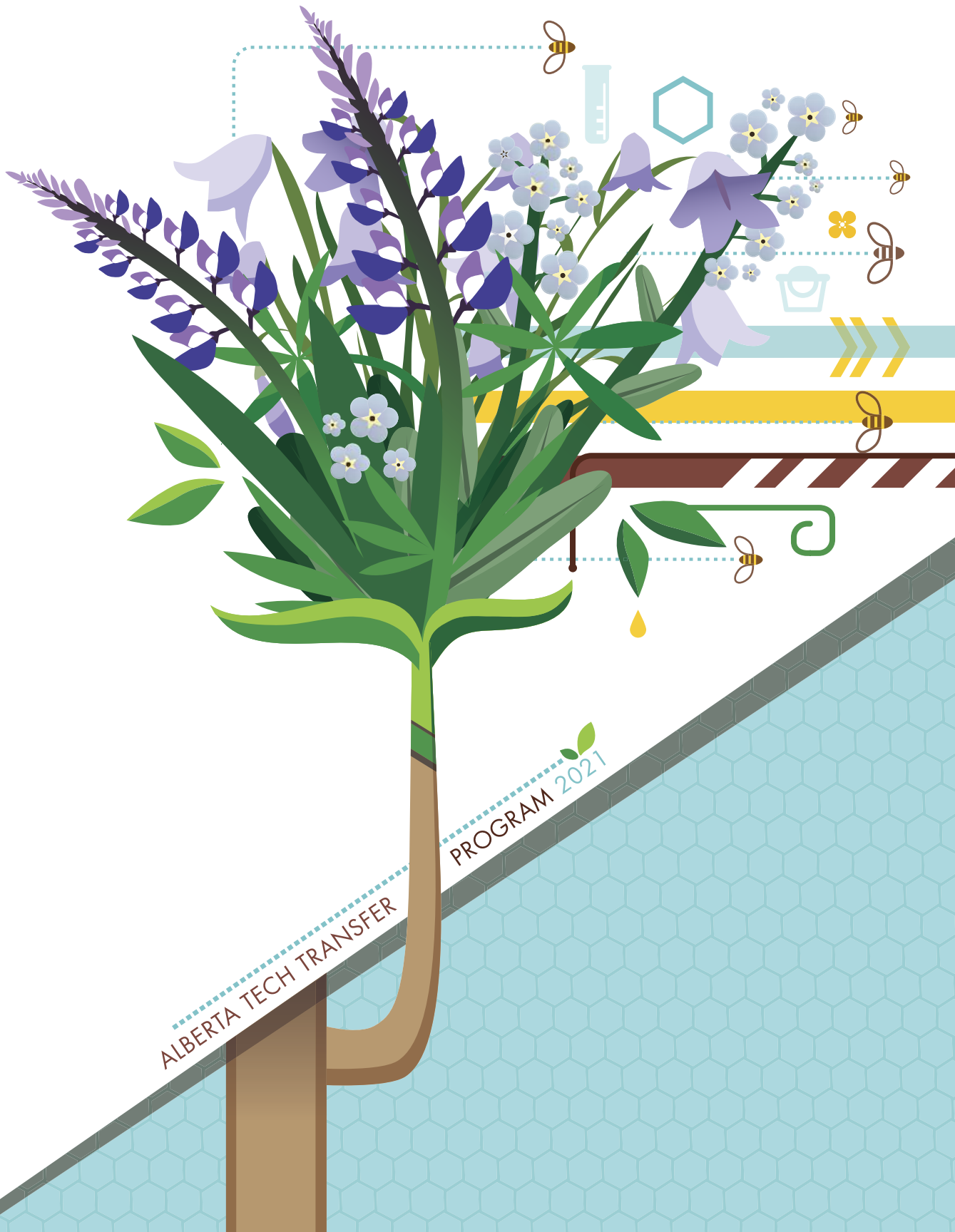


ALBERTA TECH TRANSFER

PROGRAM 2021





## STAFF

### **TTP Team Lead**

- Renata Borba

### **TTP Technician**

- Emily Olson

### **TTP Summer Student**

- Nicole McCormick

### **TTP Summer Student**

- Kara Beinert

### **Program Support**

- Aaron Toma

### **CHM Collaborator**

- Lynae Ovinge

### **CHM Collaborator**

- Jeff Kearns



## ALBERTA **TECH TRANSFER** PROGRAM

### INTRODUCTION

It gives me great pleasure to acknowledge the valuable accomplishments the TTP Team have made to apiculture in the province of Alberta. I would like to thank all members of the TTP program including Dr. Renata Borba, Emily Olson, Lynae Ovinge, Jeff Kearns, Nicole McCormick, Kara Beinert and Aaron Toma for their contributions to colony

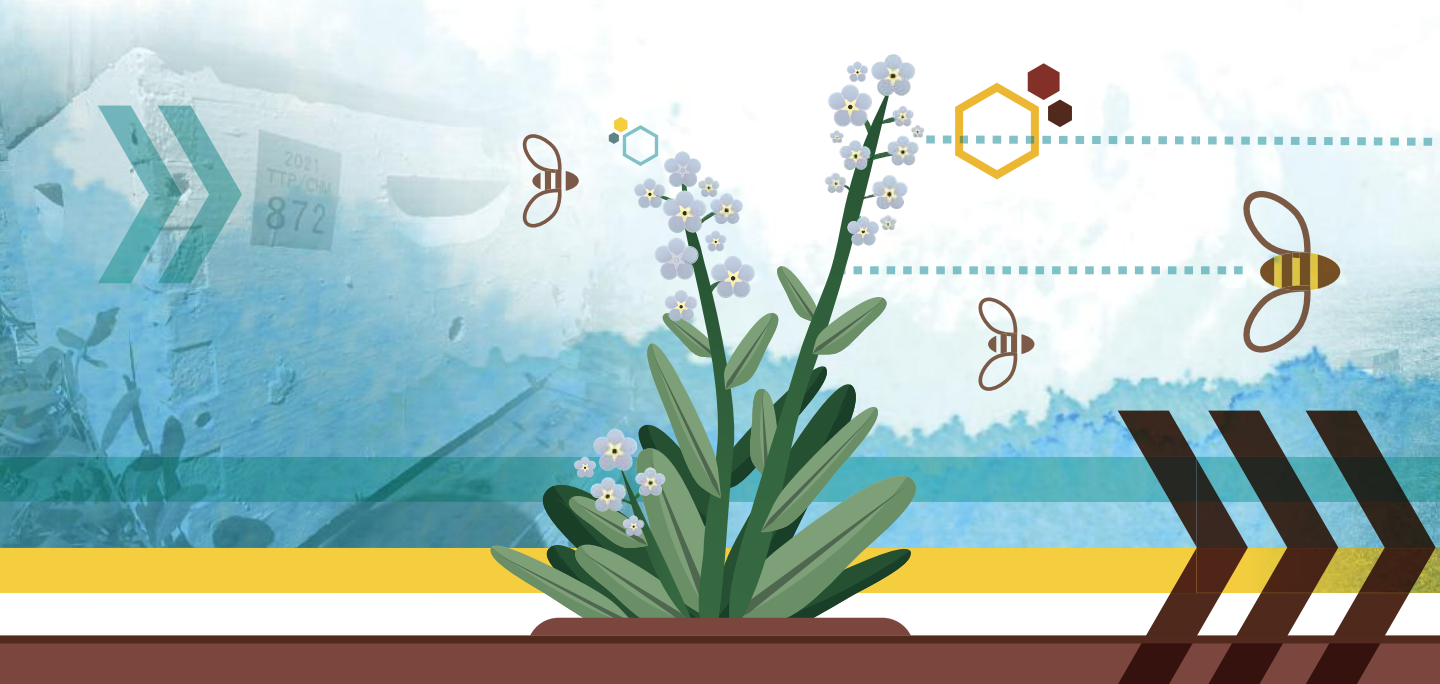
health, research, and education in beekeeping as detailed in this report. I know the coming year will be a promising one and we wish the TTP great success as we work toward a strengthened and more sustainable industry.

As chair of the Alberta Tech Transfer Program (TTP) Steering

Committee, I would encourage all beekeepers to consider the benefits that the TTP might have to improving the operations at your farm.

Our warmest wishes to Renata and her team in the year to come.

Grace Strom



## 1. Colony Health Monitoring Program (CHMP):

This program was designed to assist beekeepers with colony health inspections in their operations, and to provide feedback on the visual inspections and lab diagnostics results. In 2021, a total of 85 apiaries (27 beekeepers) were sampled 2-3 times during the year: spring, summer and fall. Each participating beekeeper receives a field inspection and lab disease diagnostics report. At the end of the season, a yearly report is produced compiling the data from all beekeepers for an overall evaluation of the colony health status in Alberta. Participating beekeepers are also encouraged to contact the TTP team anytime with questions.

### 1 CHM Program Reach

85  
Apiaries

27  
Beekeeping  
Operations

2360  
Samples



## 2. Integrated Pest Management Training:

The first step in an Integrated Hive Management program requires taking the time to familiarize yourself with the bees, the colony, and the pests. Protecting honey bees from pathogens and disease is an integral component of the hive management program, which requires dedication to learning about disease identification, diagnosis and treatment. This on-farm training covers Integrated Pest Management (IPM) principles, basic honey bee biology, pathogens (AFB, EFB, Chalkbrood, Nosema,

Viruses), parasites (Varroa mite), pests (small hive beetle, wax moth), IPM strategies and plan. The IPM training is divided into two parts: lecture (indoors) and field training (outdoors). A total of 4 beekeeping operations registered for IPM training. COVID-19 protocols were established to assure the health and safety of workers and TTP staff.

### 2 Knowledge Transfer Activities

4  
On-farm  
training  
sessions

2  
Online  
workshops

2  
Hive-side  
chats



## 3. Research and Educational Projects:

A. “Mass storage of summer-mated queens during the winter in Alberta”: This is a





project in collaboration with Dr. Shelley Hoover's lab (University of Lethbridge) The objectives of this project are to: 1) Provide proof of concept that overwintering queens en masse is feasible in Alberta, 2) Develop prototype management strategies for mass overwintering queens in Alberta, 3) Validate the performance and quality of overwintered summer-mated queens, 4) Calculate the economic viability of a successful winter storage system of queens en masse, and 5) Disseminate the knowledge via workshops, conferences and publications.

**B.** "Protecting the biosecurity of Alberta's beekeeping industry through the development of a comprehensive beekeeping education program": This collaborative project between ABC and Alberta Farm Animal Care (AFAC) will support the

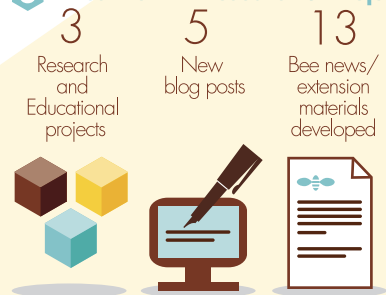
development and delivery of a comprehensive Alberta beekeeping educational training program and the creation of supporting educational materials. The training program and educational resources will increase the awareness and adoption of appropriate biosecurity practices as recommended by industry organizations and supported by research. Additionally, these resources will be accessible/usable by all; hobbyists, commercial beekeepers and seasonal workers. Training materials will be produced in two languages (English and Spanish).

#### **C.** "Queen Rearing Course":

A post-secondary certified queen rearing/breeding course will be developed in collaboration with ABCbees (Apiaries and Bees for Communities) and offered to beekeepers through

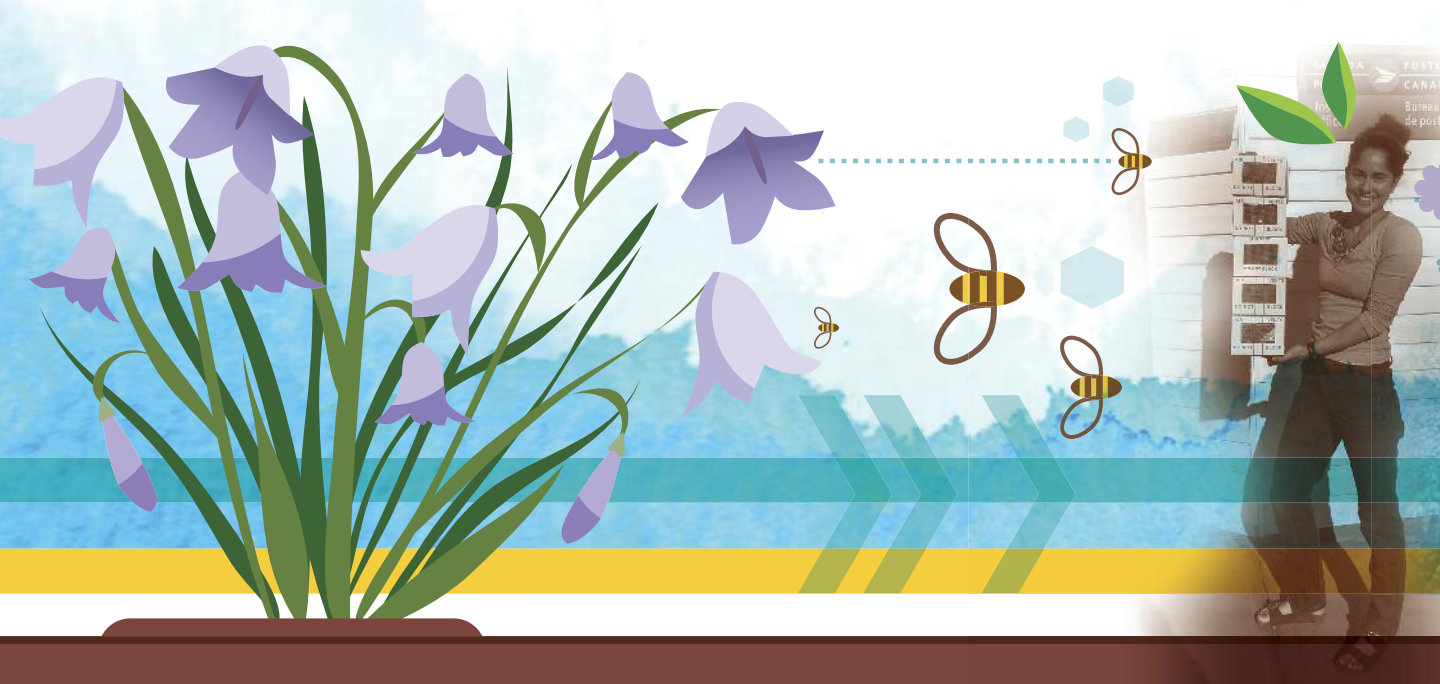
the Northern Alberta Institute of Technology (NAIT). This course will help new and existing beekeeping operations access knowledge that would reduce import costs, improve sustainability of their hives, expand operations, and improve profitability.

#### **3 Investment in Research & Projects**



#### **4. Workshops:**

Due to the COVID-19 health restrictions in place, both workshops organized were hosted virtually: Integrated Pest Management Workshop and Honey Bee Pests



and Diseases Identification Course. We decided not to host the Southern Alberta Beekeepers Meeting and Breeders' Day this year, but we are looking forward to organizing many successful workshops and meetings in the next year.

## 5. Hive-side chat Webinar:

The goal of the Hive-side-chat is to create an opportunity for beekeepers throughout the province to learn and discuss various topics related to honey bee health, biology, pathology and more. Webinars are held monthly during the off bee-season.

## 6. TTP YouTube channel:

Visit our YouTube channel (@Alberta Tech Transfer Program) for some bee educational & instructional videos. Presentations from all events as well as the Hive-side chat webinars can be found here.

## 6 Digital Engagement

84  
YouTube  
Subscribers

05  
new blog  
posts

938  
Instagram  
followers



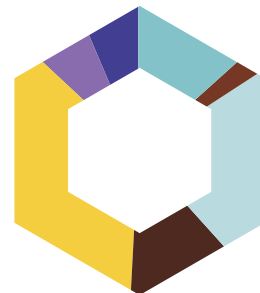
## 7. Factsheets and Extension Materials:

Numerous extension materials were developed throughout the year including; a queen wheel, a Varroa sampling and monitoring fact sheet, and COVID-19 guidelines for beekeepers.

## 8. TTP website:

Our website is a one stop location where beekeepers can find TTP-related information including beekeeper services, events, workshops, research projects, factsheets, and extension and educational materials.

## 9 Financial Support



-  \$30K invested by ABC
-  \$6K from Canada Bee Research Fund
-  \$50K from Project Apis m.
-  \$28K from Pollinators Fund
-  \$81K from CAP – Risk Mitigation Program
-  \$15K from CAP – Adapting Innovative Solutions in Agriculture Program
-  \$14K from Agriculture AgriFood Canada and Employment and Social Development Canada

Additional funding comes from TTP-Store sales and services





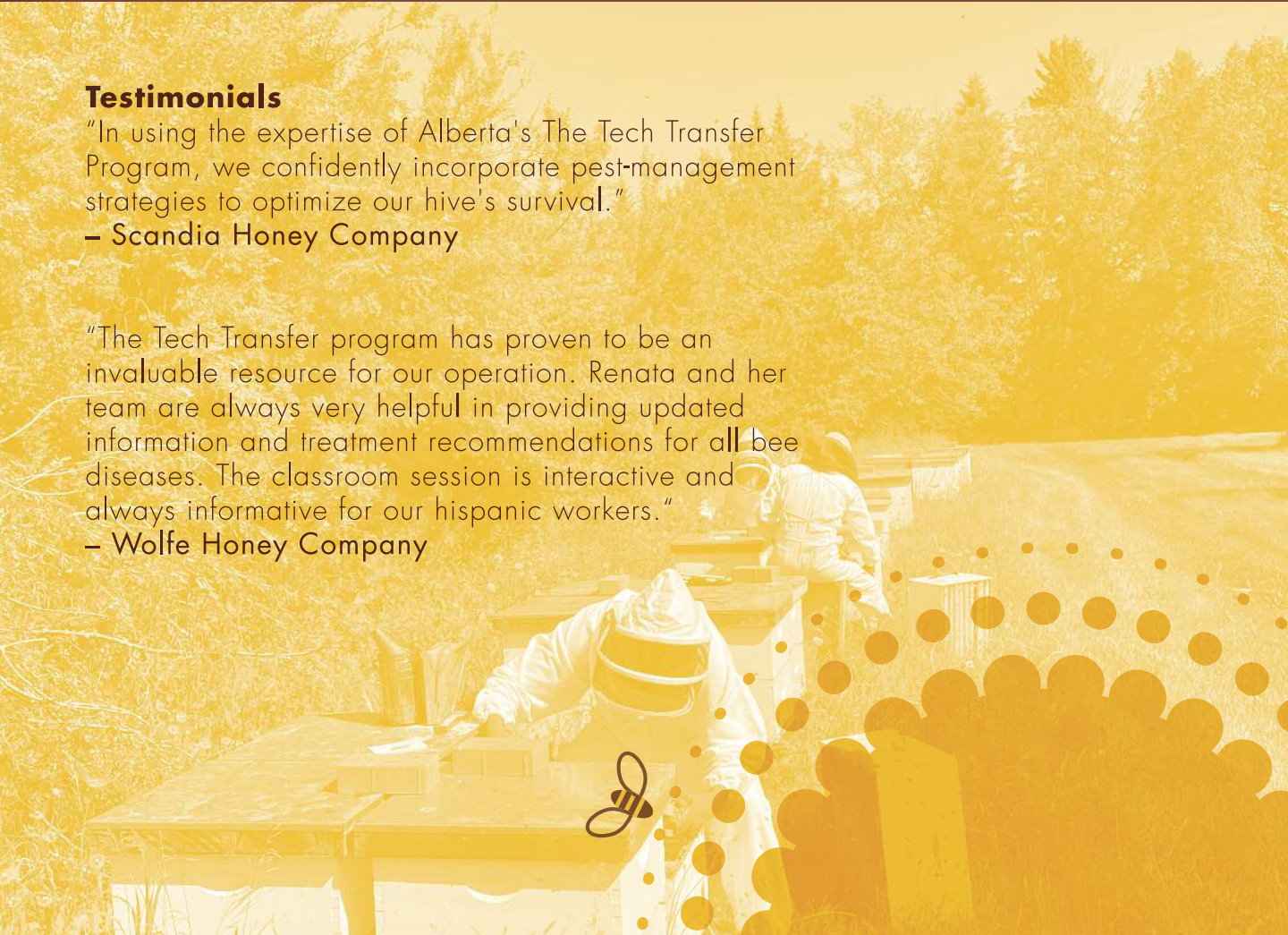
## Testimonials

"In using the expertise of Alberta's The Tech Transfer Program, we confidently incorporate pest-management strategies to optimize our hive's survival."

– Scandia Honey Company

"The Tech Transfer program has proven to be an invaluable resource for our operation. Renata and her team are always very helpful in providing updated information and treatment recommendations for all bee diseases. The classroom session is interactive and always informative for our hispanic workers."

– Wolfe Honey Company





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