

2019 OBA Tech-Transfer Update

Tech Transfer Mandate

- Training and Extension
- Research
 - Responsive
 - Collaborative
- Supporting Industry Priorities



OBA TTP 2019

42 Workshops

- Intro to Beekeeping
 - 18 Field/Online workshops
- IPM for Beekeeping
 - 12 Field/Online workshops
- Queen Rearing
 - 2 workshops
- Advanced IPM
 - 1 workshop
- Queen Breeding
 - 1 workshop
- Antibiotic use and AMR for Veterinarians
 - 3 workshops



Apiology 101

Training from the Ontario Beekeeper's Association Technology Transfer Program

Based on the popular TTP live training sessions offered throughout Ontario in the spring, these online modules take you through the basics of beekeeping. Courses are presented in sessions throughout the year and are monitored and supported by team members. Participants will interact with the Tech Transfer staff as they navigate and learn from compelling and intuitive online courses. The aim of these courses is to have graduates ready for the beeyard and have the knowledge and confidence to be successful in keeping healthy bees in Ontario.

[TAKE TOUR](#)[LOG IN](#)

There are two courses currently available:

Introduction to Beekeeping



This beginner beekeeping course consists of modules that teach you everything you need to know to get started keeping your own bees. Topics include basic honey bee biology, beekeeping equipment, working in the bee colony, seasonal beekeeper responsibilities, harvesting and extracting honey and preparing bee colonies for winter.

[SIGN UP](#)

Integrated Pest Management



This intermediate beekeeping workshop consists of modules that teach you everything you need to know to keep your bees alive and healthy. Topics include pest and disease biology and identification, monitoring for pests and diseases, record keeping, treatments and integrated pest management principles. You will also learn how to make an IPM plan.

[SIGN UP](#)









Hygienic Behaviour





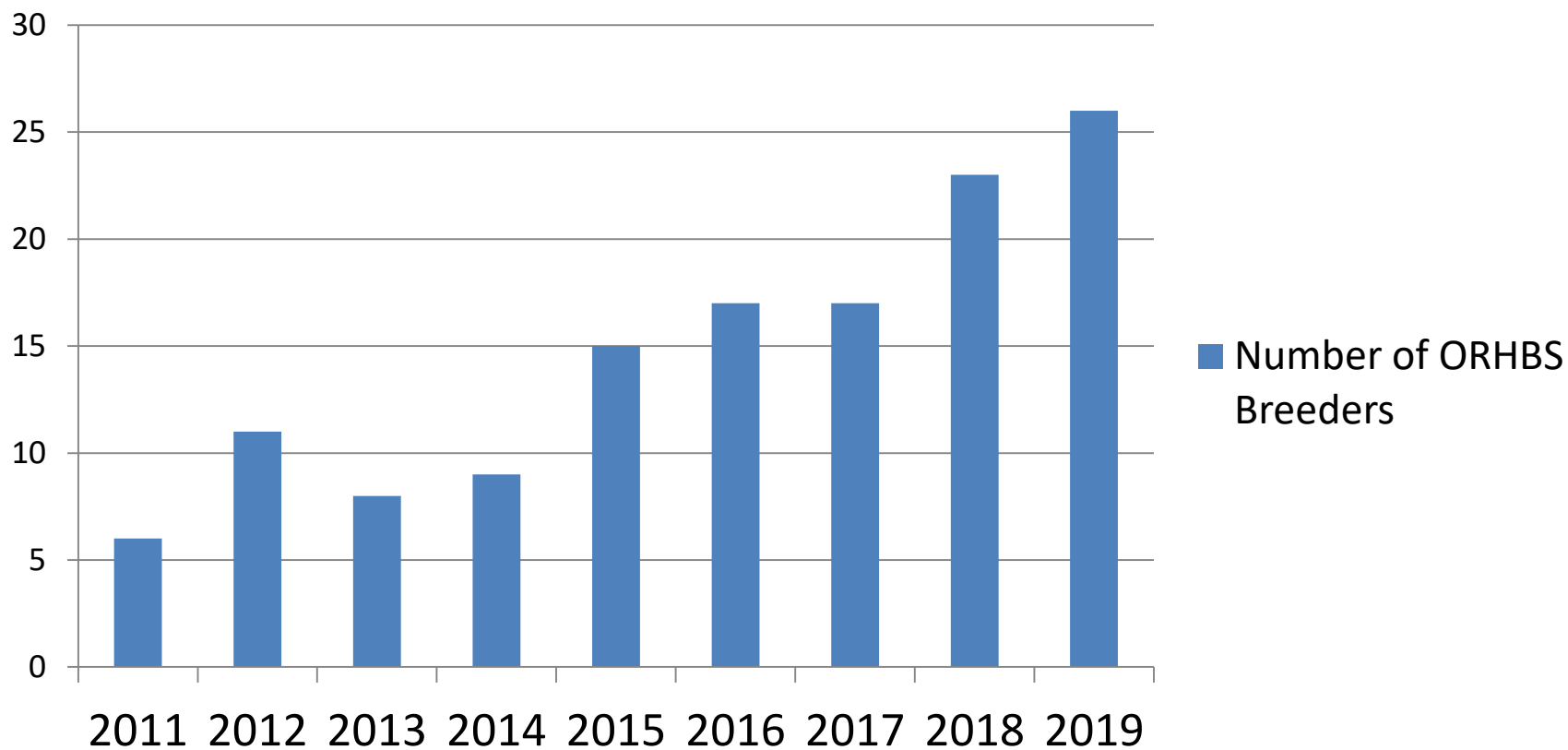
Ontario Queen Rearing Manual

- Low Defensive behaviour
- Honey Production
- Overwintering Ability
- Spring Build-up
- Low Swarming Tendency
- Hygienic Behaviour – Varroa, AFB, and other brood disease resistance
- Queen Longevity
- Resistance/Absence of other diseases (nosema, chalk brood, sac brood)
- Comb Stability
- Grooming Behaviour
- Tracheal Mite Resistance



ORHBS Program Participation

Number of ORHBS Breeders





ORHBS Program Production

- 20,000 queens/cells
- 2000 nucs
- OMAFRA/CAP funding





ORHBS Program Production

- How to increase production
- How to improve distribution
- Become less reliant on Imports

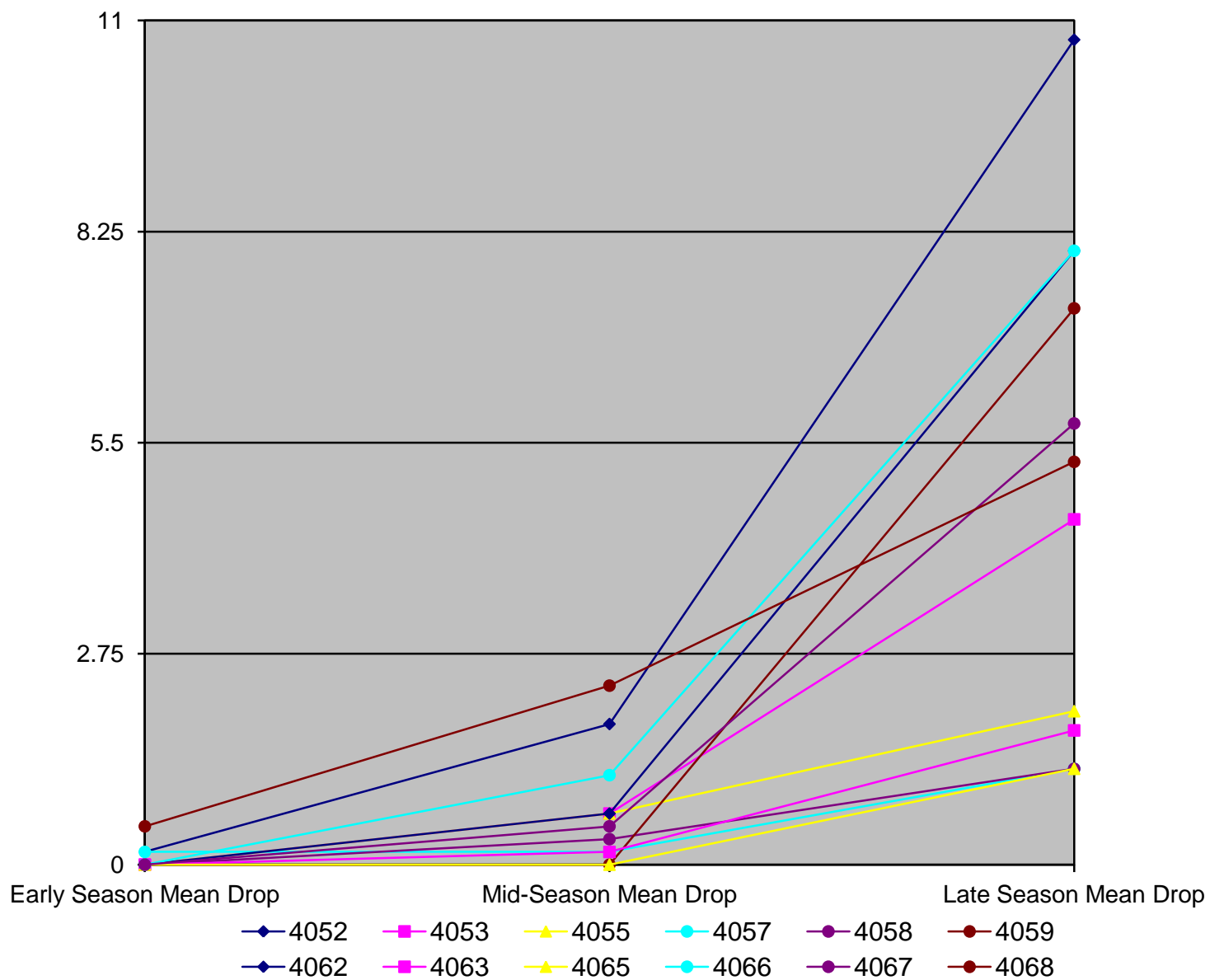


Grooming Behaviour - Dr. Guzman UofG

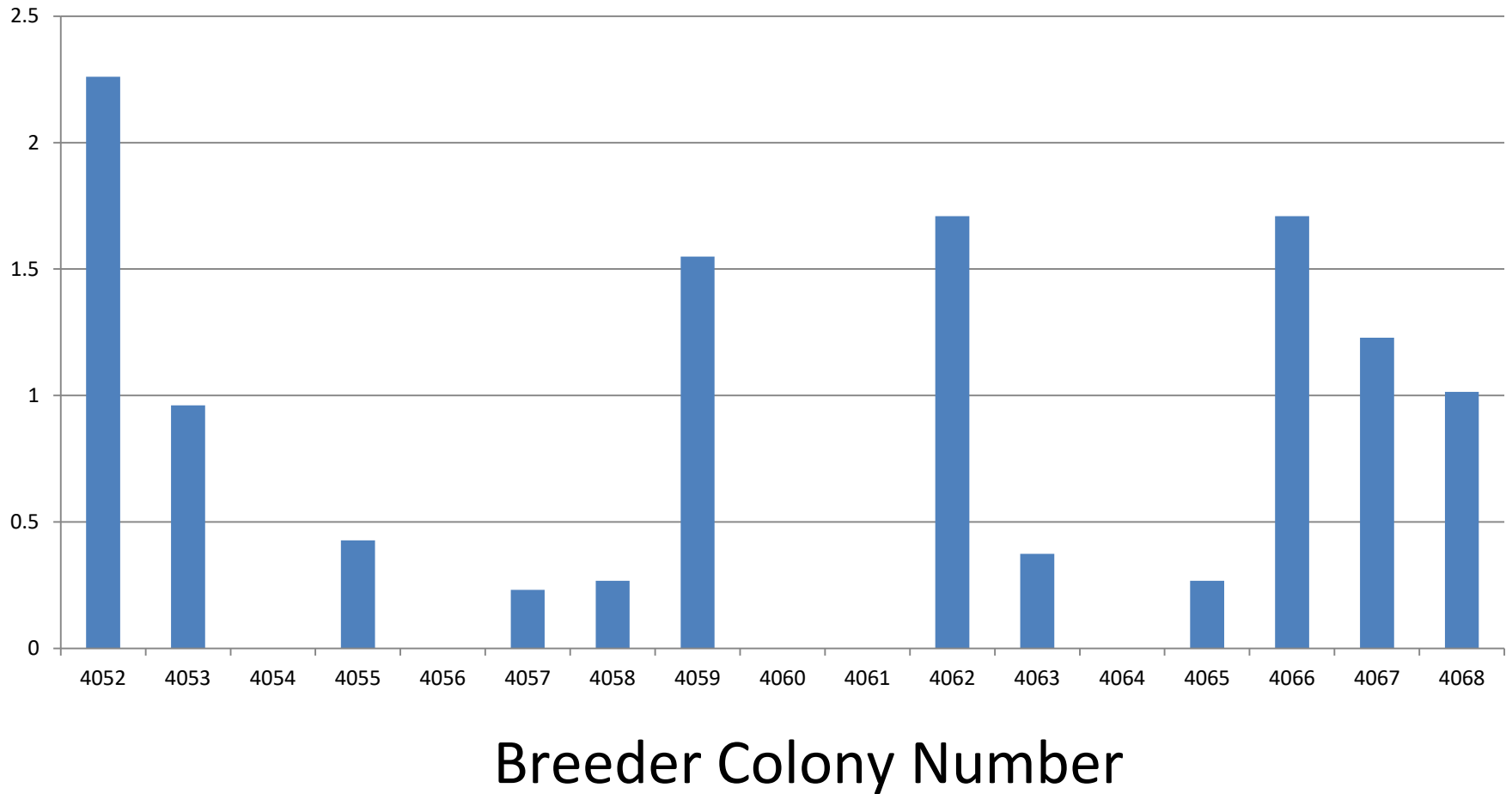








Relative Seasonal Mite Gain Report



Pierre Giovenazzo- Laval University

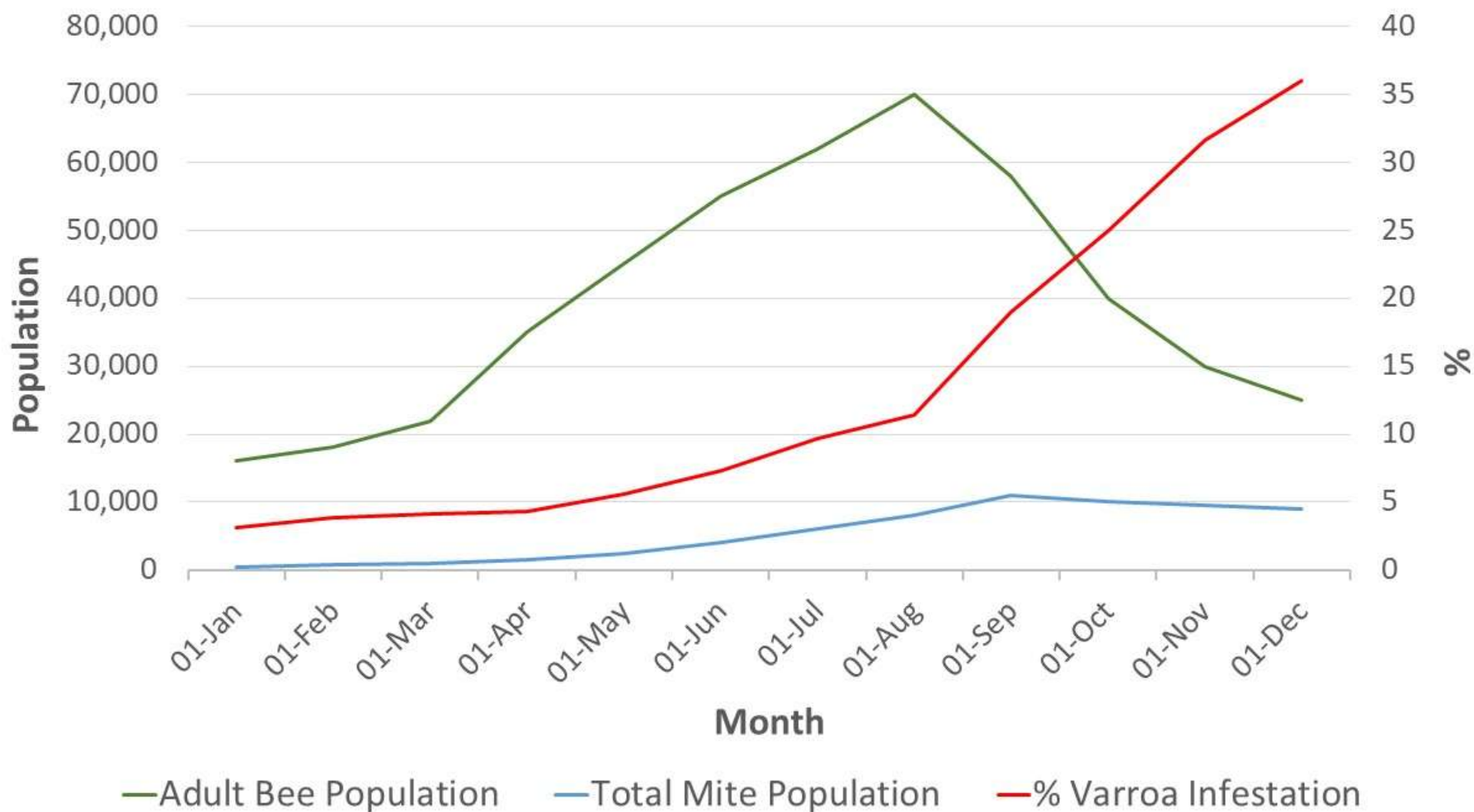
Varroa Sensitive Hygiene



Integrated Pest Management (IPM)

**Incorporating several options
to control a pest population**

Honey Bee Population and Varroa Mite Population Over a Season



Varroa Mite Population Dynamics

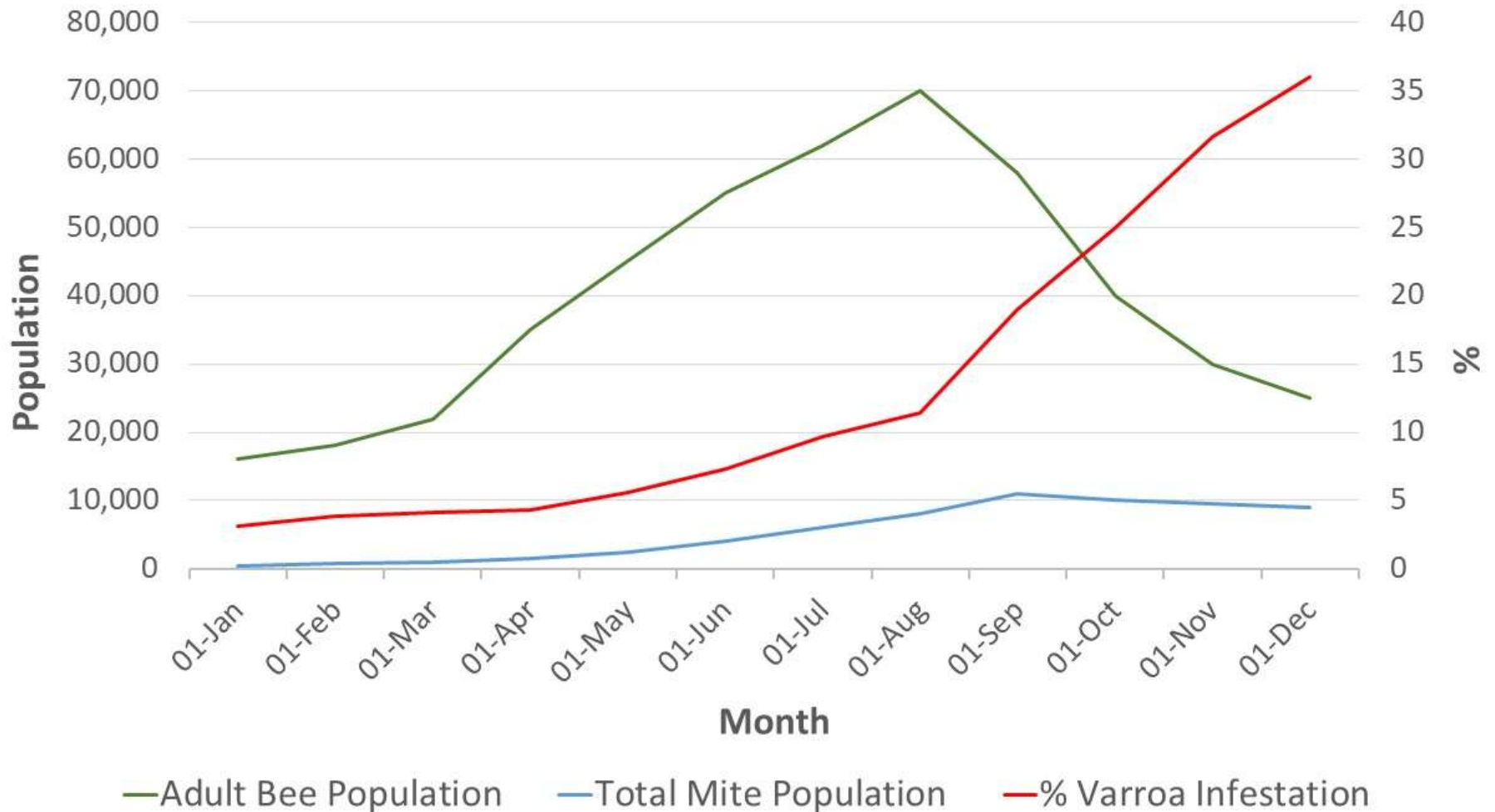
- Based on Reproductive Patterns Mites Grow Exponentially
- Seemingly Low Spring Infestations Still Require Monitoring and Attention
- Healthy, Fast-Growing Colonies Are Great Places for Varroa Reproduction

The Irony about Varroa:

The stronger and more productive a colony is,
the more varroa it will produce.

Major GAP in Varroa Control

Best Management Practices



Development of More Options for Mid Season Treatment

OMAFRA New Directions Proposal

Oxalic Glycerine Method

Formic Flash Treatments



Apidologie (2016) 47:596–605

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DOI: [10.1007/s13592-015-0405-7](https://doi.org/10.1007/s13592-015-0405-7)

Original article

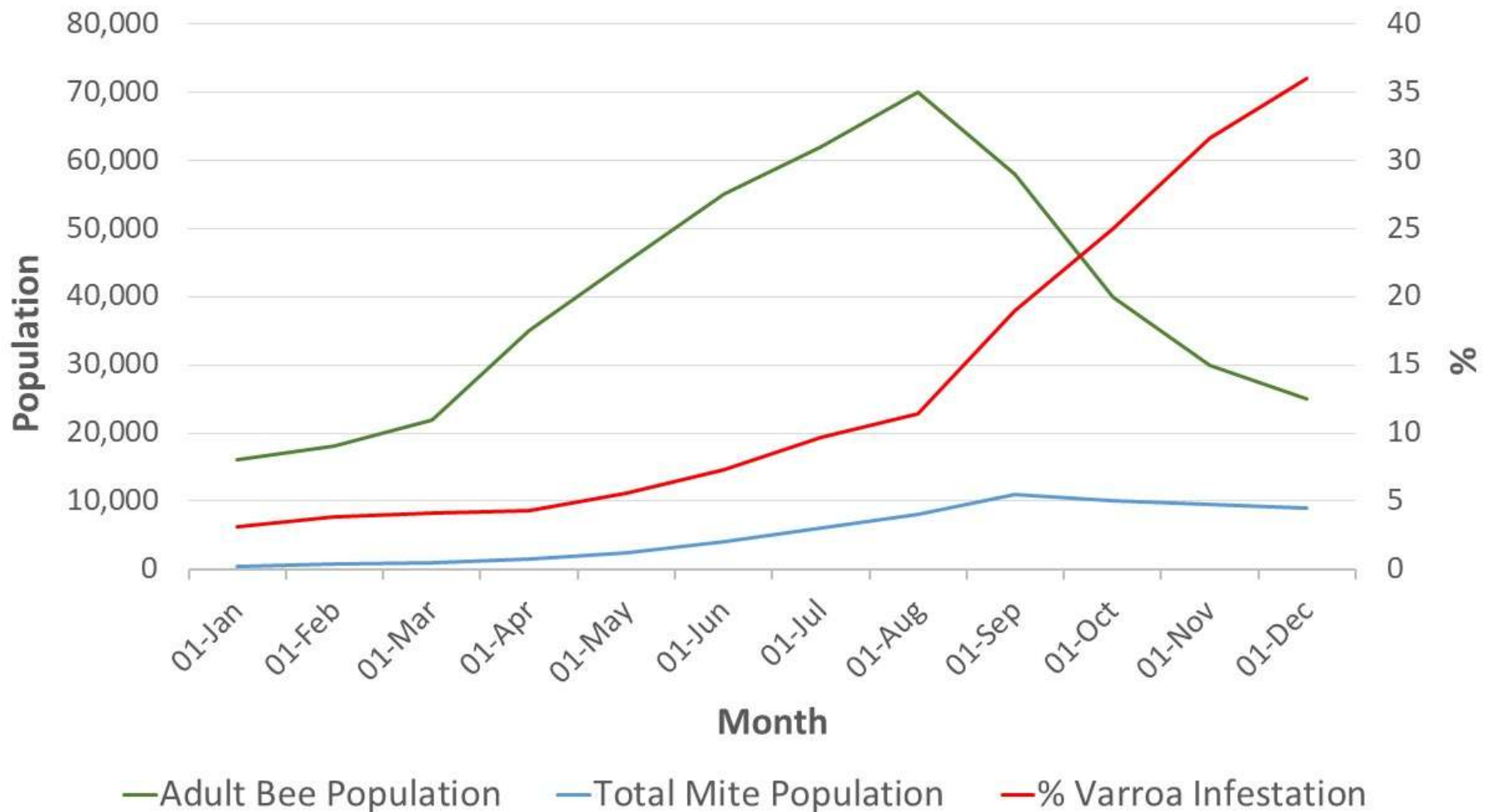
A new formulation of oxalic acid for *Varroa destructor* control applied in *Apis mellifera* colonies in the presence of brood

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Formic Flash Application



Major GAP in Varroa Control Best Management Practices



Varroa Resistance

- Limited Data
- Limited Methods of detection
- Important that beekeepers monitor treatment results



Gracias y Adios!

- Mel Kempers
- Dan Thurston
- Dan Borges
- Kelsey Ducsharm
- Paul Kozak
- Ernesto Guzman
- Paul Kelly
- OBA Board
- OBA Membership

