



The Managed Mentoring Program on getting started in beekeeping.

# Managed Mentoring



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## Mite Infestations in Fall

Lesson | Fall Infestations



# What is Covered in this Module

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Protection of Winter Bees

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Fall Mite Monitoring – Catching Problems

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Fall Treatment Options

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Fall Treatment Strategies

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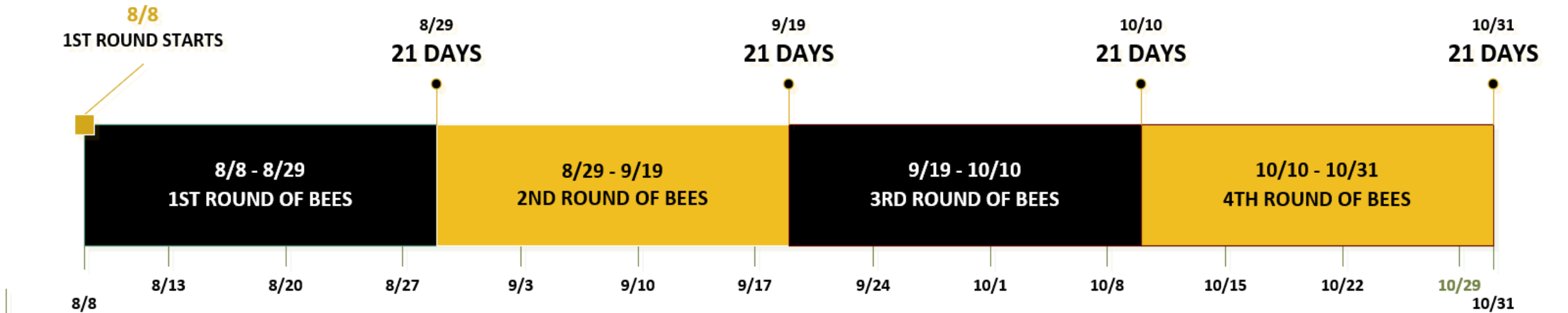
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# Winter Bees

## ■ 4-Cycles (of 21 days)

- Remembering we want a cycle of 4 generations of **CLEAN Bees** to overwinter, and that starts August 8<sup>th</sup>.
- Keeping mites in check during this window is critical for hive survival
- This window of time is susceptible for mite population growth, and inadvertent mite infestations



# Fall Mite Rebounds

## □ Mite Population Growth – Round Two

- *Fall nectar flows benefit mites*
  - As the bees are building the population of winter bees through fall, they create a second round of mite population growth
  - Mites in fall are more harmful: ***all mite impacts are on the worker community***
    - There are rarely any drones being produced and what drones are left in the population are minimal
  - Even moderate mite loads can have an impact
    - Think of impacted nurse bees – which are feeding any developing brood
    - They could be passing on viruses which would result in a sick population going into winter



# Hive Collapse in the Neighborhood

## □ Colonies Overwhelmed

- *Whether it is managed hives in the neighborhood or feral hives nearby, some hives collapse in fall*
  - As noted in the robbing lesson, opportunistic foragers will look to raid the resources and in turn pickup mites that are looking for new hosts
- *Hives left behind – Absconding*
  - Some colonies leave an established hive behind due to mite pressures and the colony imploding. This is more common in fall
    - Foragers that come in and clean up the remains, especially if the event just happened, could pick up any vestiges of mites that remain



# 7 Monitor and Touch Up

## □ Protect Winter Bees

- *It is important to protect your workforce that will become the winter population*
  - Remain vigilant by monitoring in fall and treating if necessary
- *Use the varroa mite management guide*
  - Temperatures vary and you may have to choose the right treatment option for cooler weather or different conditions
    - Some treatments will not work if the applicable temperature range is not present



# Proactively Limit Thresholds

## □ Treat in fall for low thresholds in Spring

- *Tactically, some beekeepers are very proactive about keeping low mite thresholds in fall*
  - The premise is that if mite thresholds are low in the winter colony, more bees will make it through
  - More bees making it through means more colony survival and better outcomes next season
  - Bees also start with less mites and see fewer impacts through to next summer





# Lower Brood Production / Tradeoff

## □ More effective treatments in Fall

- *Another tactic for proactively treating in fall centers on brood production*
  - As bees slow brood production for fall, they get into a state where there is less capped brood
  - With less capped brood, treatments are more effective at limiting the overall mite population (when using treatments that do not penetrate the capping)
  - Some treatments, such as oxalic acid vaporizations, for mite infestations in fall and winter count on less brood production – or should be conducted when little to no brood is being produced.



# Closing Comments

## ■ Customary Close

- Where we stand, where we are going...
  - *This lesson emphasized being proactive about mite impacts in fall*
  - *Our next lessons set the stage for some fall activities:*
    - Propping up any weak hives for winter
    - And understanding why we would collapse hive to small footprints for winter
    - Planning for any equipment and honeycomb storage in winter
    - Learning about waxmoths



## Q&A

- **What Questions did we not anticipate?**
  - If you have feedback, you can leave a constructive comment; but be nice.
  - You could also send an email to [comments@managedmentoring.com](mailto:comments@managedmentoring.com)
    - *Please refer to this video in the subject so we know what the reference is.*

