

Start off the new year by learning something new or brushing up on something old! Winter is a great time to refine your disease identification skills, review your current management techniques, explore new ones, and create an Integrated Pest Management (IPM) plan!



Winter is also a great time to start preparing for the upcoming bee season. Repairing and building new equipment, purchasing supplies (bees, equipment, treatments), and scouting out possible yard locations are all tasks that can be done in the off season and will make the busy summer much easier.

# March - April

Weather permitting, colonies can be fed a pollen supplement and/or sugar syrup if necessary. Now is an important time, as summer bees are being reared. Pollen is important for stimulating early brood rearing, which will ensure your colony is ready for a busy spring! On a warm day, colonies should be monitored for Varroa mites and Nosema. High Varroa and Nosema levels in the spring may result in a slow colony build up, low honey production, and high overwinter mortality. Treatments should be applied if levels exceed the following economic thresholds\*

### Nosema: 1 million spores /bee Varroa: 1 mite / 100 bees

Colonies should be resampled post treatment to assess treatment efficacy.

\*Always follow label instructions.





When daily temperatures are consistently above 10°C, winter wraps can be removed. If running doubles, reverse brood chambers. This will move the cluster to the bottom portion of the hive, giving the bees access to resources and space in the above brood chamber and helps to prevent swarming. It is also a good time to clean bottom boards and remove dead colonies.

If the weather is warm enough, a thorough inspection of your colonies can be done. Check for signs of disease, queen issues, adequate food stores, or slow build-up. Chalkbrood and EFB will start to show up at this time of the year. Keep an eye out for clinical signs and intervene with management practices or treatment when necessary. Strong colonies can be split or a brood chamber can be added. Requeen any weak colonies or those that have an old queen.

Dandelions will begin to bloom – an important early spring nectar source for honey bees! Bees should also be bringing in pollen from willow, and other flowering trees and shrubs.



Keep a close eye on your colonies, as June is when bees often swarm! Give them plenty of space, adding a second brood chamber or honey super as needed. Once a colony decides to swarm, it is very hard to change their minds!

Canola will bloom in late June and is the major nectar source for honey bees here in Alberta.

Continue to monitor for diseases and remove sick colonies from the yard to prevent diseases from spreading. Designating a site as a "hospital yard" is a good biosecurity practice, which will help prevent the spread of disease throughout your operation.



Continue to add honey supers as needed. July is when the peak honey production occurs in Alberta.

Under-supering (adding empty supers underneath previously added supers) encourages bees to fill empty supers rather than overfilling the oldest ones.



Winter bees begin to develop in early-mid August. It is critical to monitor and treat for Varroa mites and other diseases early so those important winter bees develop under healthy conditions. High viral loads have been associated with high winter mortality. Since Varroa mite and virus levels are positively correlated, it is important to keep mite levels low, especially during this time. Often we see high viral loads persist even after mite levels have been decreased, so maintaining low mite levels throughout the year is critical.

Remember: most treatments require honey supers to be removed prior to treatment application

\*Always follow treatment instructions!



Continue to monitor for Varroa mites and other diseases. Consider a follow-up mite treatment if you are still seeing levels above the fall economic threshold of 3% (3 mites /100 bees).

If your Nosema levels exceed the economic threshold of 1 million spores/bee, you may want to consider treating your colonies.

Colonies can be fed a 2:1 sugar syrup (70% sucrose solution). It is best to feed colonies a strong sugar syrup in the fall, as syrup with a high moisture content can cause dysentery.

Only put strong colonies into winter. Weak colonies will most likely not survive, and you risk spreading diseases to your other colonies.











# October -November

Finish feeding your bees in October. Remove and clean feeders so they are ready for the spring. Avoid feeding bees when temperatures drop below 10°C. The bees will not be able to adequately process the syrup and feeding increases the humidity in the hive, which can affect their ability to thermoregulate during those cold nights.

Wrap colonies with winter wraps and ensure there is good ventilation. Ventilation is key to overwintering success! If there is no way for moisture to escape, water will build up and may lead to colony mortality.



December

Rest and recouperate! Enjoy some of that hard earned honey!





June

April - May 🏭

July 🧏 🀙









October

## November December



