

Small Hive Beetle Treatment Recommendations

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Infosheet

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CHEMICAL CONTROL

Currently, the only registered treatment for small hive beetle in Canada is through the Minor Use on CheckMite+™. Although this treatment may reduce the numbers of SHB in a honey bee colony it may not completely eliminate the infestation. The active ingredient of CheckMite+™ is coumaphos, an organophosphate. This class of chemicals is relatively toxic to bees and humans, appropriate care is required in application – as with any treatment – read and follow the label instructions carefully. The following instructions are not the full instructions listed on the label and should not be used in their place.

Treatments must be applied at a time when bees are not producing a surplus honey crop and honey supers have been removed. Use one strip of CheckMite+™ per hive. Remove honey super before the application of CheckMite+™ strips. **DO NOT REPLACE HONEY SUPERS UNTIL 14 DAYS AFTER THE STRIPS ARE REMOVED.**

Prepare a piece of corrugated cardboard by peeling off and removing the surface of one side to expose the flutes within the cardboard. Cut the cardboard to approximately 22.5 cm along the flutes by 10 cm wide (across the flutes). Tape over the smooth side of the cardboard (the side opposite the flutes) with duct tape, shipping tape or similar tape to prevent the bees from chewing and removing cardboard, or use one-sided plastic corrugated sheets. Staple one strip of CheckMite+™ onto the centre of the corrugated side of the cardboard.

Place cardboard insert fitted with CheckMite+™ strips as near the centre of the bottom board as possible with the strip facing down, parallel to the width of the hive. Make sure the bottom board is clean and the insert lays flat on the bottom board. This allows the beetles to walk through the tunnels, but it prevents the bees from

walking under the insert and being exposed to CheckMite+™. For detection, leave the strips in the hive for one week, then check for the presence of dead beetles. For treatment, leave the strips in the hive for a minimum of 42 days and a maximum of 45 days. **DO NOT TREAT THE SAME COLONY WITH COUMAPHOS MORE THAN TWICE A YEAR.** Honey supers may be replaced 14 days after strips are removed.

NON-CHEMICAL CONTROL

There are a variety of devices that can be used to trap adult SHB in honey bee colonies. Trapping will not necessarily eliminate all SHB individuals in the colony but may reduce their numbers. Most traps work by taking advantage of the natural tendency of adult SHB to seek out dark, tight spaces. Traps may also be used to detect the presence of SHB in a colony. One common trap is a corrugated cardboard or plastic insert placed on the bottom board. Other common traps use a grating over a reservoir containing vegetable oil, which collects any drowned SHB adults. Consult your local bee supplier or a bee supply catalogue for a full range of products.

BEST MANAGEMENT PRACTICES: COLONY MANAGEMENT

There are many practices that beekeepers can employ to limit the exposure of their honey bee colonies to SHB. Beekeepers in all regions of Ontario should be aware of how to identify SHB and should familiarize themselves with the biology of SHB. Beekeepers should inspect for SHB when actively assessing their colonies. Beekeepers should be aware of the risks of moving their colonies into or adjacent to areas where SHB have been detected. Beekeepers should consult the Ontario Apiculture Program webpage for the latest information on the distribution of SHB:
www.omafra.gov.on.ca/english/food/inspection/bees/apicultu.html

General colony management is one of the most important measures to prevent SHB damage to honey bee colonies. Strong, healthy and populous honey bee colonies can provide additional defence against SHB damage.

Beekeepers should:

- Manage colonies for optimum strength and bolster weak colonies whenever possible.
- Maintain healthy queens and address any queen issues early.
- Minimize the amount of unprotected comb in proportion to honey bee population – use caution around supering.
- Promptly remove all dead colonies from the apiary and inspect the comb for the presence of SHB before storing or using the equipment.
- Keep the apiary clean of any wax debris from broken frames or wax scrapings.

HONEY HOUSE – EXTRACTION FACILITY

Small hive beetle can infest and damage beekeeping equipment and can spoil honey. Honey supers may introduce both adult and larval stages of SHB into a honey house or extracting facility. Beekeepers should

always keep an eye out for the presence of SHB when removing honey supers from colonies and moving them into an extracting facility. In instances where SHB is found to be present in an extraction facility it is important to adhere to the following practices:

- Extract honey supers immediately (no longer than 2 to 3 days) once removed from colonies.
- If possible, manage colonies with queen excluders and, if running honey bee colonies without queen excluders, ensure that no honey bee brood is brought into the honey house in honey supers.
- Run dehumidifiers in hot rooms to maintain relative humidity below 50%.
- Ensure that extraction facilities are maintained as clean as possible.
- Thoroughly clean the extraction facility, immediately after the majority of extraction is complete.
- Remove the following materials, or store in beetle tight containers: unprotected comb, wax cappings, slumgum.
- Store honey comb, extracted frames and unused honey supers in a freezer or a cold room (< 10°C) and/or a room with low humidity (< 50% RH).



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