

Brood uncapping with wax hair removal strips.

Brood uncapping using tweezers can be time consuming and does kill a small section of brood. Wax hair removal strips can also be used to uncup a section of sealed brood and monitor for *Tropilaelaps* and has the benefit of being faster and not killing brood.

As when using tweezers, place your brood frame on a flat surface. Warm the wax hair removal strips to soften the wax, peel the strips apart and apply the sticky side of the strip to the sealed brood, pressing firmly to remove any air bubbles.

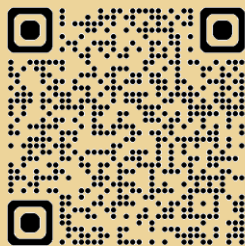
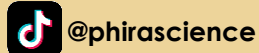


Rapidly pull off the wax strip to uncup the brood. If *Tropilaelaps* are present they will emerge from the brood and run across the comb, so watch the frame for a minute. Uncapped frames can be returned to the hive and the hive can be reassembled.

What should I do if I find *Tropilaelaps* in my hives?

Tropilaelaps are a statutory notifiable pest and any suspect sightings must be reported to the National Bee Unit www.nationalbeeunit.com, 0300 303 0094, nbu@apha.gov.uk.

You can also find out more information on our website www.phira-science.org and by following us on social media.



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BROOD UNCAPPING FOR TROPILAEALAPS DETECTION

Why use brood uncapping for *Tropilaelaps* detection?

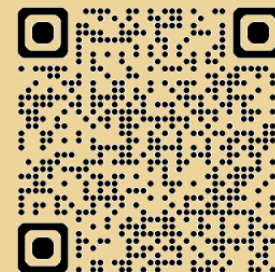
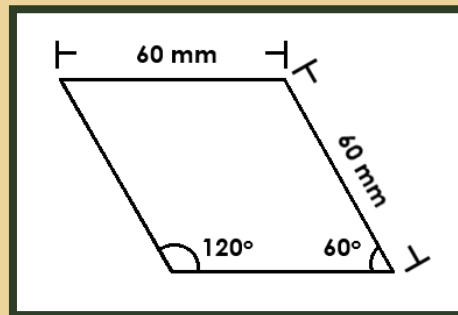
Tropilaelaps are parasitic mites that reproduce in honey bee brood in much the same way that *Varroa* do. However, *Tropilaelaps* have a shorter phoretic phase and spend less time outside of the sealed brood on combs or adult bees, making it less likely for a beekeeper to spot an infestation. *Tropilaelaps* is not currently in the UK, however it is important that beekeepers proactively monitor for *Tropilaelaps*, even if they don't suspect an infestation, as early detection and action will be crucial to eradicating an incursion of this deadly parasitic pest. Checking the sealed brood for mites is the most reliable way to detect *Tropilaelaps*.

How to monitor with brood uncapping.

1. You will need –
 - A pair of fine tipped tweezers **or** wax hair removal strips.
 - A spare roof or crown board.
 - A x40 magnifying hand lens.
 - A head torch or torch.
2. Open your colony, and while completing your normal inspection of the brood select a frame with more than 100 sealed brood cells. *Tropilaelaps* do not prefer drone or worker brood, so either is suitable to uncap.
3. Check the frame for the queen and if present make sure she is safe. Shake the bees back into the brood box.
4. Cover the brood box with the crown board or roof and make sure any supers are covered with a spare crown board or roof to prevent robbing.
5. When carrying out this technique it is important that you are not distracted by flying bees, so find a suitable location with a flat surface to lay the selected brood frame.

Brood uncapping using tweezers.

A rhombus template can be used to identify the 100 brood cells to be uncapped. These can be purchased from a beekeeping supplier or alternatively you can make your own from a sheet of laminated card or a thin sheet of stiff plastic.

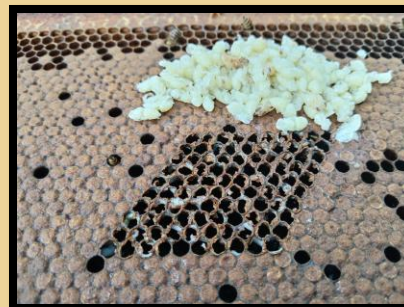
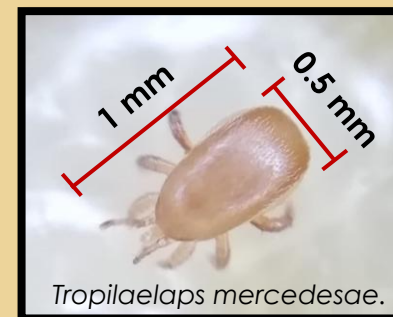


Use the QR code to access a printable rhombus template and videos of brood uncapping techniques.

Alternatively, if you do not have a rhombus template, or if you do not have a solid area of sealed brood simply count the cells as you uncap.

Place the frame on a flat surface. Use the tweezers to remove the wax capping from the cell and then carefully remove the brood. Try not to damage the brood as this will produce fluids that can hide any *Tropilaelaps* mites.

Do not use an uncapping fork as it damages the brood.



Carefully examine the brood for mites. *Tropilaelaps* measure 1 mm long by 0.5 mm wide and red brown in colour.

Gently blowing over the uncapped brood will encourage mites to leave the cells.