

Tropilaelaps Mites

Description

Tropilaelaps mites (also known as Asian mites) are external, parasitic mites that feed on the haemolymph of bee larvae and pupae. These mites are a reddish-brown color and are about 1 mm in length and 0.5 mm wide (about 1/3 the size of Varroa mites). Tropilaelaps mites move quickly throughout the hive and can often be seen moving during inspections. They have not been recorded in the US, but are a serious threat in China and other parts of Asia.



Photo credit: Ken Walker Museum Victoria,



Photo credit: Food and Environment Research Agency (FERA)

Life Cycle

Adult Tropilaelaps mites lay eggs in brood cells and feed directly on developing honey bees. Tropilaelaps mites may be found on adult honey bees, but usually are not because they are incapable of penetrating the tough exoskeleton of adult bees. Aside from not typically feeding on adult bees, Tropilaelaps mites have a very similar life cycle to Varroa. They also have a much shorter life cycle, because of their shorter life cycle, Tropilaelaps mites reproduce extremely fast. Some studies have shown that there can be around 25 Tropilaelaps mites to every Varroa mite in a honey bee colony.

A phoretic Tropilaelaps mite will enter a brood cell and will lay 1-4 eggs. Eggs of Tropilaelaps mites take about one week to develop into adults. When the young bee begins to emerge from its brood cell, the mites will exit the cell and start the cycle again on other developing brood.

TROPILAEAPS MITES

(*Tropilaelaps clareae*, *T. koenigerum*, *T. thaii*, *T. mercedesae*)

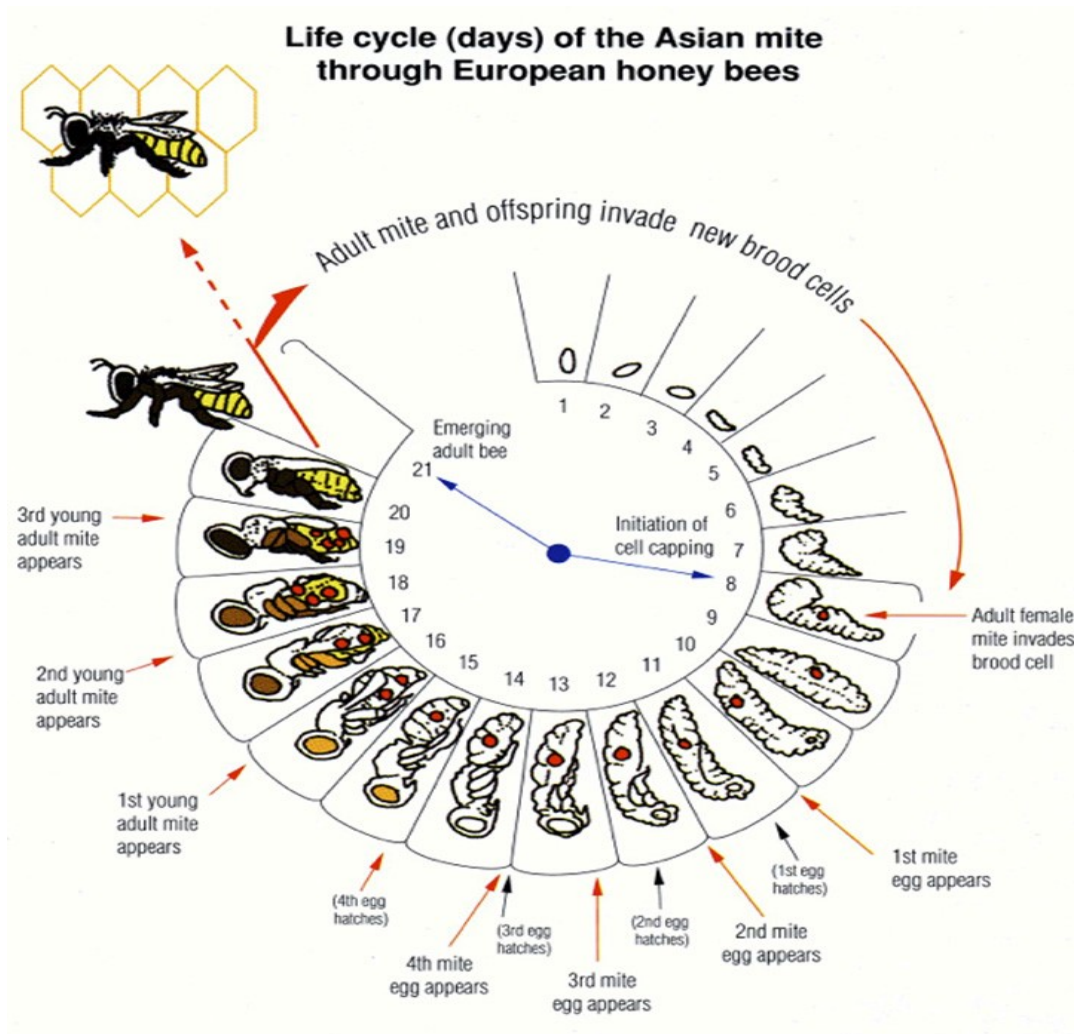


Photo credit: Denis Anderson, www.beesdownunder.com.au

Symptoms

Tropilaelaps mites cause very similar symptoms to Varroa mites. Beekeepers should look out for:

- Parasitic Mite Syndrome (PMS)
- Bees with deformed body parts, especially wings (Deformed Wing Virus (DWV))
- Spotty brood patterns
- Large number of deformed bees near the entrance of the hive
- General reduction in the bee population and poor colony health

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Similar Pests

Tropilaelaps mites could be confused with *Varroa* (*Varroa destructor*) and with Pollen mites (*Mellitiphis alvearius*). *Varroa* mites are much larger than *Tropilaelaps* and are often seen on adult bees. Pollen mites are light brown and 0.75 mm long and 0.75 mm wide. Pollen mites are not destructive to honey bees and do not impact colony health.



Photo credit: Denis Anderson, www.beesdownunder.com.au

Management

Tropilaelaps has not been detected in the United States. However, there are strict quarantine requirements in place to protect the honey beekeeping industry in Montana. If you think you have found *Tropilaelaps* in your hive, please report it to the State Entomologist immediately upon detection. Recording the number of cases is important to bee health in Montana and can aid in tracking the movement of *Tropilaelaps*.

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