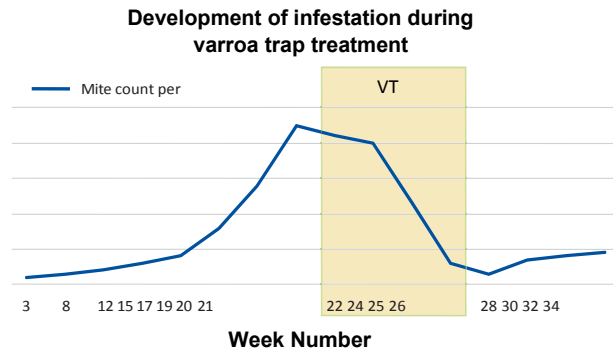
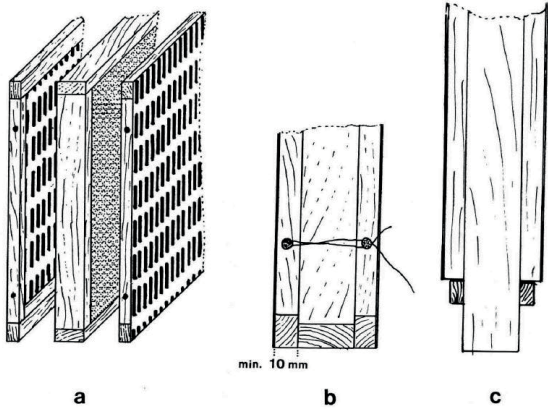


Practical Experiences

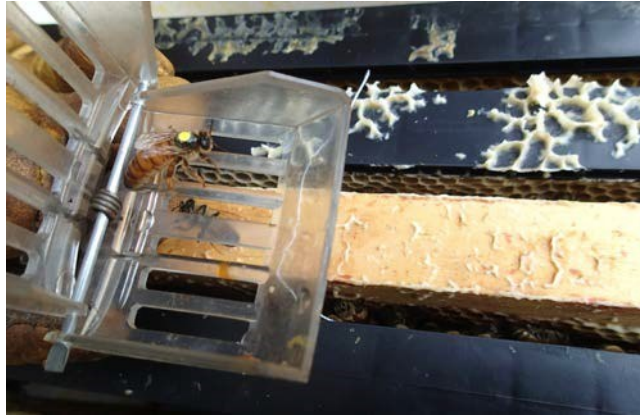
A frame cage is used to confine the queen to the trap comb, preferably an older comb since she is less inclined to lay on fresh combs. When applied two to three weeks before the end of the nectar flow no loss in honey production can be expected as the temporary decline of the bee population will occur just after that. The graph (Bee Institute of Kirchhain, Germany) shows that the mite count drastically drops during the treatment.



Result of mite count of 21 hives treated with the varroa trap method. The period of treatment (4*7 days) is marked yellow.



Sketch for simple construction of frame cage from queen excluder material and wood strips. a) front and back of frame cage, b) side view with foundation wire to connect both parts and c) frame top with both cage parts between the wider frame sides.



It is easier to find and catch a well marked queen.



Introducing the queen into the frame cage.



Inserted Varroa trap.

Short and Sweet

Advantages

- 100% biotechnical method.
- Treatment possible with honey box (best 2 - 3 weeks before the end of the nectar flow).
- Less invasive than total brood removal method.

Requirements

- Queen has to be caught.
- Might take more time to find queen in step 1.
- Frame cage.
- Pre-planning.

Timing

Two to three weeks before the end of the last nectar flow

Original Version and Design by

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The "How to make a Frame Cage" worksheet can be down loaded from the club's website or by opening this QR code:



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Comox Valley Bee Club



The Varroa Trap Method

Effective Varroa Treatment without Chemicals



Concept of the Varroa Trap Method

The varroa trap method is one of the oldest known biotechnical varroa treatments beside the removal of drone brood. It combines the concepts of the complete brood removal technique with that of a brood break. The queen is separated for 27 days with the aid of a frame cage made from queen excluders, whereby she can only lay eggs in the comb within the frame cage.

During this time, all bees are hatching from the remaining brood combs outside the frame cage. Every nine days, the trap comb from the frame cage will be exchanged and placed beside the frame cage. This action will be repeated three times. The varroa mites eventually only find suitable brood cells for propagation in the trap combs inside the frame cage. The trap combs are to be removed from the hive after the cells are capped. That way it is possible to eliminate 90% of varroa mites without chemicals. The trap combs can be discarded, if old, or frozen for a week and returned to the hive after de-capping the cells. The bees will recycle the dead nymphs as a source of protein.

Instead of a 3*9 cycle, the queen can be swapped four times once every week (4*7 cycle). This 28 day variant is well suited for weekend beekeepers.



Ensure that the trap comb has a hole or passage through which the queen can access both sides of the comb.

Step 1

Day 0

- Cut hole into trap comb (applies also to subsequent trap combs).
- Place queen on trap comb 1 inside the frame cage.

Step 2

Day 9

- Place queen on trap comb 2 inside the frame cage.
- Place trap comb 1 beside the frame cage.

Step 3

Day 18

- Place queen on trap comb 3 inside the frame cage.
- Remove trap comb 1 from the hive.
- Place trap comb 2 beside the frame cage.

Step 4

Day 27

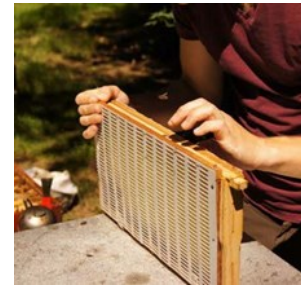
- Release the queen.
- Remove trap comb 2 from the hive.
- Leave trap comb 3 in the hive.

Step 5

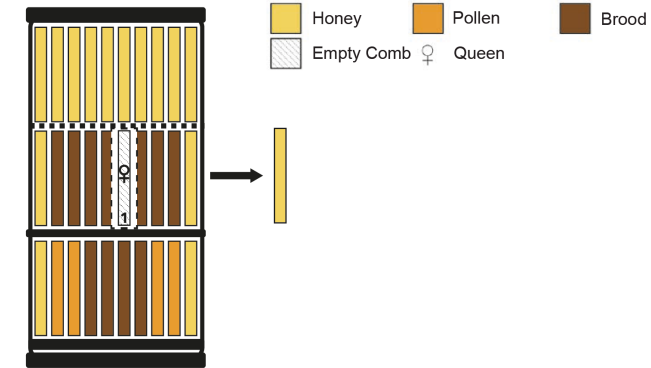
Day

- Remove trap comb 3 from the hive.
- Check if hive is queenright.

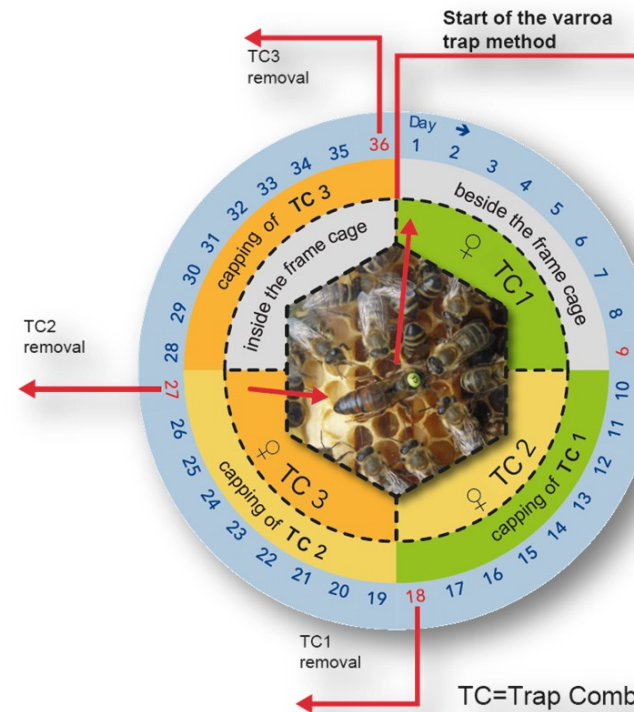
Application of the Varroa Trap Method



The frame cage is placed in the centre of the hive.



Schematic diagram of a hive at the beginning of the treatment (Step 1). To make room for the frame cage remove an unnecessary comb. The honey box can remain on the hive.



The trap combs that were removed from the hives are replaced by empty combs and can be discarded, especially if old, expired combs were used.

Trap combs in good condition can be frozen for a week and returned to the hive after de-capping the cells.

The brood on the trap combs is not suited to build new hives or to equalize other hives as they are heavily infested with varroa mites