

Alternative Beekeeping with the Warré Hive

By John Haverson, Andover BKA

If you wish to take a non-intrusive approach to beekeeping, a Warré hive is a good choice, as John Haverson explains.

There appears to be growing interest in alternative beekeeping using husbandry aligned to the nature of the honey bee. One of the hives which suits this approach is the Warré hive, a vertical top bar hive.

Why Warré?

Honey bees have been around for over thirty million years, adapting to numerous changing conditions and often coping without man. In a natural environment, honey bees thrive in a warm, undisturbed place to live, with sufficient nutrition to sustain the colony.

I started to use the Warré hive eleven years ago to provide a more natural environment for bee colonies, to reduce my beekeeping stresses on colonies and to enable the bee superorganism to manage its own nest environment. This decision was reinforced

after reading about the importance of retaining nest atmosphere and warmth, (Nestduftwärmebindung) for bee health and wellbeing; discussed by Johann Thür in his book *Beekeeping: natural, simple and successful*.¹

Design and use

The Warré hive has a tall, narrow configuration similar to a hollow tree, with top insulation. The bees are enabled to build near-natural comb downwards from starter strips of wax on top bars in each box. Foundation from recycled, potentially polluted wax, is not used. When space is needed, in spring and later in the season, it is added to the hive by nading, which is placing a box onto the solid floor underneath the occupied hive boxes, thus conserving the nest warmth. A hive will normally consist of four or five boxes. Lifting the hive to add space is

unconventional, but nading can be limited to spring time when overwintered hives are at their lightest.

The Warré hive is best populated by attracting a swarm from a wild bee nest or from a beekeeper using natural husbandry and not treating for varroa. New swarms establishing their nests are not fed copious amounts of sugar but in inclement weather may be given a pound or two of diluted honey as an emergency boost.

An important aspect of Warré's method is that hives need only be opened once a year, at harvest time. A non-intrusive approach requires the beekeeper to observe calmly entrance activity and deduce what is happening in the hive. The booklet *At the Hive Entrance* by Storch provides a useful guide, as is communication with other Warré hive users.



Photo of exploded Warré hive by David Heaf.

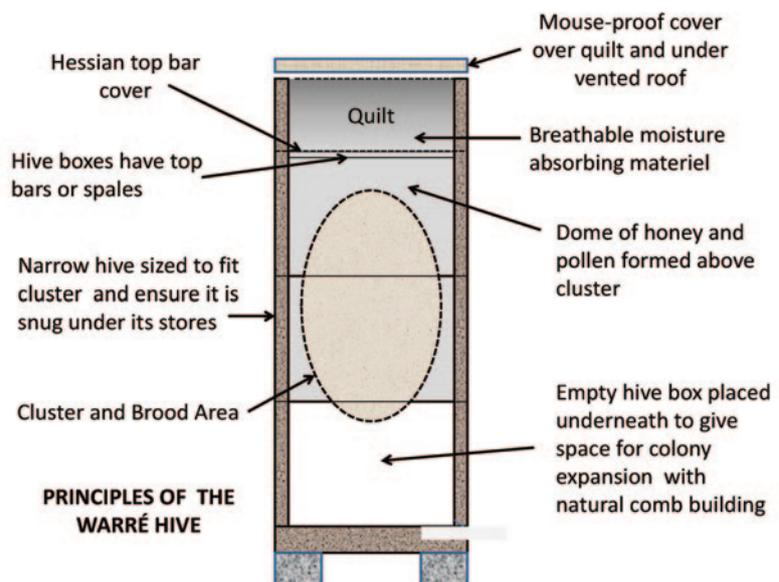


Diagram illustrating the principles of the Warré hive by John Haverson.



Above left: Plexiglas observation hive by Mark Gatineau showing downwards comb growth; Right: The author observing hive entrance activity of a strong colony, courtesy of John Haverson.



A harvested box yields about 9.6 kg of honey. The 'L' knife is used to cut side comb attachments. Photo by John Haverson.

A box of honey may be taken in September by removing the top box, after weighing and checking there is still 12 kg of winter stores on the hive. Colonies winter on their own nutritious honey, not on sugar. There is no feeding of sugar as the poor nutrition weakens bees and their immune systems. Importantly, the rotation of boxes, nadir in the spring and harvest in autumn, achieves replacement of old comb.

For the beekeeper, harvested honey comb containing nutritious bee bread (pollens) and propolis, can be eaten as raw comb or pressed cold to retrieve honey. The resultant honey contains more flavour than most filtered honey and a number of people have said it is the best honey they have tasted. This quality honey fetches a significantly higher price and limited stocks have sold quickly. In 2015, an analysis of 250 honeys by Cardiff University identified three honey samples from Warré hives, with anti-microbial properties as potent as New Zealand's manuka honey.

Swarming

Colonies are allowed to swarm when they need to reproduce. There is no intrusion into the brood nest to cull queen cells and mutilate queens or drones. This, together with nading in the springtime, reduces a number of triggers for swarming. Undisturbed colonies do not swarm every year. Strong mature colonies can also give a harvest in the year they swarm. Beekeepers, favouring natural swarming, usually practice swarm management using simply constructed bait hives. These hives can be monitored frequently for scout bee activity during the swarm period; when selected by swarms they also provide a convenient and inexpensive way of gaining bees. Rarely used is a simple split of a strong colony in three boxes during the spring swarm period. Without manipulation of individual combs or bees this can be used to achieve an increase in stocks and thwart possible swarms.

There are significant advantages to natural swarming. The new queens are subjected to natural selection during development and after hatching, resulting in survival of the fittest. Her drones will carry strong genes to mating congregation zones. Cross-mating with similarly selected queens will improve the quality of the wider bee community. During the swarm process, both the home nest and the new swarm have broodless periods which suppress varroa reproduction. Strong, healthy colonies of local adapted bees have developed a number of mechanisms to cope with varroa and other pathogens, without the need for chemical treatment or manipulation.

Inspection

Careful observation will indicate when brood inspection is required. In early spring a colony which is not foraging actively and collecting pollen, is one example. Another is a colony which

fails to defend itself, despite a reduced hive entrance when wasps can be seen freely entering the hive. Wasps are a natural predator of bees and will indicate weak and failing colonies. On inspection, the beekeeper will look for the presence of a queen and eggs on a central brood frame. If it is evident that the queen has probably failed, in my experience the predominant reason for colony failure, the brood nest is examined further.

Action with a failed colony

The colony would be doomed in nature. With the Warré hive, bees are tossed into a hedge, from which they usually find a new colony to join, and honey and wax are harvested. Old brood comb is burnt and the hive dismantled. Brood comb is not introduced from another hive, which would risk the transfer of pathogens and disrupt the donor. Nor is a foreign, artificially raised queen introduced as she is unlikely to be adapted to UK climate or have been through the rigors of natural selection.

The hive is set up to attract a swarm, leaving propolis on the hive walls. Following early spring failures, the likelihood of swarm attraction is good. These 'free' bees cost nothing and reduce the urge to prop up weak colonies which might have been purchased commercially for hard cash.

After notes and further information

My winter losses from untreated colonies have averaged at 15% over ten winters. It is difficult to compare seasonal losses with treated colonies, as those managing conventional hives routinely replace queens and swap brood combs.

Husbandry aligned to the nature of the bee results in healthy bees living in harmony with my family and providing moderate amounts of honey. If this bee-appropriate approach to beekeeping appeals to you, more information is available from:

- 1 Beekeeping: natural, simple and successful by Johann Thür at <http://www.users.callnetuk.com/~heaf/thur.pdf>
- 2 Warré Beekeeping at <https://warre.biobees.com/>
- 3 *Beekeeping For All* by Emile Warré –Translated by D Heaf at http://www.users.callnetuk.com/~heaf/beekeeping_for_all.pdf
- 4 David Heaf's Beekeeping pages <http://www.bee-friendly.co.uk>
- 5 Natural Beekeeping Trust – Natural Bee Husbandry; see <http://hampshire.naturalbees.net/p/about.html>
- 6 Current work by Torben Schiffer, working with Professor Jurgen Tautz of Würzburg University and project Honey Bee Online Studies (HOBOS), is researching the differences in climatic conditions in tree cavities and modern beehives and the effects on bee health.