



The Crisis for Honey Bees: Was Rudolf Steiner Right?

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In November and December 1923 Rudolf Steiner delivered nine lectures on bees to the workers of the Goetheanum at Dornach. The content came from his research and gave a series of unique insights into the world of honey bees.

The late 19th century and early 20th century saw the development of a series of beekeeping techniques which are now regarded as ‘modern’ or ‘conventional’. During the lectures these techniques were advocated by a professional beekeeper, Mr Müller.

Müller and Steiner had a particular disagreement regarding the then developing practice of rearing of honey bee queens using the larvae of worker bees. Steiner was quite clear that this would have long-term detrimental effects, so that in 100 years the likely outcome would be that the natural ability of honey bees to produce new queens would be compromised. Müller disagreed. Steiner’s response was to say: “It is quite correct that we can’t determine this today: it will have to be delayed until a later time. Let’s talk to each other again in one hundred years, Mr Müller, and then we’ll see what kind of opinion you’ll have at that point”. As Gunther Hauk¹ has pointed out Steiner could make such a prediction because anthroposophy, his spiritual science viewpoint, meant he could look beneath the surface, beyond the techniques offered by the natural sciences.

So, it is now a century since the lectures were delivered and this gives us a timely opportunity to think deeply about ‘modern’ beekeeping. Can we recognise the validity of Steiner’s warning? Is modern beekeeping working or was Steiner right? Do we need an alternative to ‘modern’ beekeeping? So, ‘modern’ beekeeping? How is it doing? Not well. The latest annual Colony Loss and Management Survey by the Bee Informed Partnership in the United States showed that, for the seventh year in a row, the results were grim. From April 2022 to April 2023, US beekeepers lost an estimated 48.2% of their honey bee colonies. Comparative loss figures for the UK are difficult to obtain. Most beekeepers in the UK are amateurs and the commercial sector is small. Anecdotally we hear of increasing problems with the premature failure of queen bees and spikes in the incidence of some diseases, such as chronic bee paralysis.

However, in many respects this is a superficial view of the issues. The question we need to ask is: why does conventional beekeeping require high levels of intervention

from beekeepers: artificial queen breeding and rearing, regular “re-queening” often with queens which are imported (meaning an absence of locally adapted genetics), frequent hive inspections, regular artificial feeding, the use of miticides, and a series of hive manipulations which, to quote Jean-Claude Guillaume² end up being similar to those of a sorcerer’s apprentice?

The answer lies in an increasing desire for humans to exploit honeybees driven primarily by the financial pressures within commercial beekeeping. When it comes to honey, there is a prioritisation of quantity over quality – including significant problems with honey adulteration. And the transportation of bees for pollination services can be brutal. In many areas of the world, we are heading down the road of high input industrialised beekeeping.

So modern beekeeping does not respect the bee – quite the opposite. I would argue that the bees within a beehive are amongst the most sophisticated co-operative communities on the planet. This community is sometimes referred to as a “super-organism”.

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Books by Tautz³ (2008), Schiffer⁴ (2020), and Chittka⁵ (2022) show us the intelligence of honeybees. Honeybees deserve better than conventional beekeeping. As Steiner said in 1923: "The more you investigate these creatures and the manner in which they live, the more you will come to the conclusion that there is a great wisdom in how they work and what they accomplish."

So, what are the alternatives? They fall into four broad categories (which overlap): ecological, natural, biodynamic, and sustainable.

Ecological beekeeping is the foundation stone in developing an alternative. As with most beekeepers, my own beekeeping journey started with conventional methods. However, my interest in the organic movement led me to question my whole approach – both practically and ethically. I began a journey towards ecological beekeeping. The surprise to me was that the concept of ecological beekeeping is hardly recognised with UK beekeeping. The one exception is an early pioneer from the 1960s, Beowulf Cooper, who makes the crucial link between genetics, ecology, and the environment. He argued for an "ecological approach" to beekeeping as well as pioneering what he called "ecological genetics"⁶.

For a detailed view of ecological beekeeping we have to turn to Jean-Claude Guillaume and Jean-Marie Frères with their comprehensive book, *L'Apiculture Écologique de A à Z* (not yet available in an English translation). They remind us that the world of bees has no need of human beings. In fact, clumsy human intervention often results in serious disruption to the bees, with unpredictable consequences in the medium-to-long term. Guillaume and Frères, along with other research, lead to a number of principles for ecological beekeeping: the welfare and protection of honey bees (and other pollinators) is paramount, a bee-centred approach, learn from the behaviour of wild bees, fixed

locality beekeeping, a suitable internal environment within the hive (ventilation/temperature/humidity), access to diverse and quality forage, virgin natural wax comb, disturb the bees as little as possible, genetic stability, no feeding with sugar syrup and artificial pollen, maintain the immune systems of the bees, treatment-free beekeeping (no chemicals), natural self-medication, and an end to pesticide and herbicide exposure.

Natural beekeeping can best be summed up as bee-centred beekeeping which learns from the behaviour of wild bees. The Natural Beekeeping Trust (2009) highlights the fact that in large parts of the world, honey bees are struggling to remain healthy and vigorous. It makes it clear that current high intervention beekeeping practices are unsustainable. Rather than try to fix the problem through even more intervention, it starts with the premise that understanding, respecting, and supporting the essential biological needs of the bee is fundamental.

Biodynamic beekeeping will be close to the hearts of readers of this magazine. Thun's practical guide to the subject has been described as a sustainable way to keep happy and healthy bees⁷. Matthias Thun was Maria Thun's son (Maria being the creator of the Biodynamic Calendar). Matthias applied her methods to beekeeping and, as a beekeeper, also conducted his own extensive research. Matthias was a biodynamic pioneer by translating into practice the observations of Steiner in his 1923 lectures. He also integrated awareness of cosmic phenomena into beekeeping. There is, of course, a Demeter Standard for Beekeeping and Hive Products. The issue is that, unfortunately, it is almost impossible in the UK for honey bees to forage exclusively or predominantly on land that is managed either organically or biodynamically.

Sustainable beekeeping has no clear definition. This has been highlighted by Heaf⁸. As a result, it can mean different things to different people. However, its strength is that it can act as a 'bridge' in making the transition from conventional beekeeping. Having said that, Bees for Development developed a definition in 2016, where the role of honey bees within an ecosystem is



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the primary consideration. The health and welfare of honey bees lies at the heart of sustainable beekeeping involving their environment, genetics, and management.

So, was Steiner right? In my view, yes. What is the way forward? Well, as Berrevoets⁹ points out, Steiner's research into the nature of the bee has had a limited impact on beekeeping practices. The centenary of the lectures at Dornach give us the opportunity to change that, so that they can start to have the impact that his research has had in agriculture and education. I would argue that the way forward is through ecological beekeeping (incorporating key elements of natural and biodynamic beekeeping, including the seven Demeter Principles). That is the challenge for all of us who want to see a better future for beekeeping.

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1. Hauk, G. (2017). *Toward Saving the Honeybee*. 2nd Edn. Milwaukee: Biodynamic Association.
2. Frères, J-M and Guillaume, J-C. (2011). *L'Apiculture Écologique de A à Z*. Ferrières: Marco Pietteur.
3. Tautz, J. (2008). English Trans. *The Buzz About Bees: Biology of a Superorganism*. Heidelberg: Springer.
4. Sciffer, T. (2020). *Evolution der Bienenhaltung: Artenschutz für Honigbienen*. Stuttgart: Ulmer Engen Verlag.
5. Chittka, L. (2022). *The Mind of a Bee*. Oxford: Princeton University Press.
6. Cooper, B. A. (1986). *The Honey Bees of the British Isles*. Derby: British Isles Bee Breeders' Association.
7. Thun, M. (2020). English Trans. *Biodynamic Beekeeping*. Edinburgh: Floris Books.
8. Heaf, D. (2011). 2Nd Impression. *The Bee-Friendly Beekeeper: A Sustainable Approach*. Mytholmroyd: Northern Bee Books.
9. Berrevoets, E. (2009). *Wisdom of the Bees*. Greta Barrington: Steiner Books. feeding, the use of miticides, and a series of hive manipulations which, to quote Jean-Claude Guillaume² end up being similar to those of a sorcerer's apprentice?