

# Could honey bee brood be the future of food?

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Bee brood . Credit: Taylor & Francis

Honey bee brood – the larvae and pupae of drones – has great potential as a food source. It is already eaten as a delicacy in many countries, including Mexico, Thailand and Australia. It has a nutty flavor with a crunchy texture when eaten cooked or dried, and is a versatile ingredient used in soups and egg dishes. It also has high nutritional value, similar to beef in terms of protein quality and quantity.

With human population set to reach 9 billion by 2050, eating insects is gaining attention as a possible way to feed the world. A paper published in the Journal of Apicultural Research shows how honey bee brood – the larvae and pupae of drones – has great potential as a food source.

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Beekeepers are accustomed to removing brood to manage Varroa mite, the most harmful parasite affecting honey bees worldwide. According to Professor Annette Bruun Jensen of the University of Copenhagen and her colleagues, this practice makes drone brood an abundant source of farmed insects with untapped potential for human consumption.

Brood farming has a number of advantages, including the relatively little arable space and low financial investment required to set up hives. Research on [honey bee](#) biology and breeding also has a long history compared to other candidates for insect farming.

But several challenges would need to be met for this method of farming to take off – none more so than in the harvesting of brood, which is very fragile and thus difficult to remove intact from the hive.

Storage, shelf life and safety are also important considerations. Due to their high fat content, larvae and pupae could go rancid if not properly removed from contact with oxygen. Yet research has shown that they can be frozen and stored for up to 10 months without severe loss or change of taste.

The food safety risks associated with bee brood are yet to be assessed. However, no cases of food poisoning from bee brood have ever been recorded, and the European Food Safety Authority has found no additional or specific risks associated with the production and consumption of insects compared to traditional livestock production.

Professor Bruun Jensen said: "Honey bees and their products are appreciated throughout the world. Honey bee brood and in particular drone brood, a by-product of sustainable Varroa mite control, can therefore pave the way for the acceptance of insects as a food in the

western world."

**More information:** Annette Bruun Jensen et al. Standard methods for brood as human food, *Journal of Apicultural Research* (2016). [DOI: 10.1080/00218839.2016.1226606](https://doi.org/10.1080/00218839.2016.1226606)

Provided by Taylor & Francis

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