



MeliBio uses 'precisions fermentation' to make honey without bees | Photo source [MeliBio](#)

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BEE-FREE HONEY ARRIVES ON THE MARKET

 FOOD & DRINK

One company is on a mission to hack into the honey industry while helping to save the 20,000 wild and native bee species under threat

Spotted: San Francisco-based MeliBio has found a way to make honey that doesn't require bees. The company was founded in 2020 by food industry entrepreneur Darko Mandich and Aaron Schaller, a University of California Berkeley researcher. The startup's ultimate aim is to make the global honey market more sustainable.

Mandich's inspiration came when he learned how keeping bees in hives for honey production was killing the 20,000 wild and native bee species due to the loss of diversity in the population. "By using science as an alternative way, we reduce the pressure on wild and native bees," he **explains**.

MeliBio has designed two processes. The first looks at how bees access plants and what they extract to make honey. The second, considers how to scale and make the product by improving the molecular composition. For the latter the company uses a concept called 'precision fermentation' – which uses organisms and microbial hosts as 'cell factories' to produce specific functional ingredients.

The company has recently raised \$5.7 million (around € 5.17 million) in seed funding to help further expand into food service and B2B applications. The organisation is already collaborating with 30 companies which intend to carry out validation studies.

The new funding will go towards further research and scaling of the precision fermentation process in preparation for the product's official launch next month. MeliBio is also recruiting and aims to increase the number of full-time employees throughout the year. Next up, the company will be looking at how else to apply its technology to the wider food ingredients market.

What's good for the bees is good for us all. As such, at Springwise, we have spotted several innovations that are designed to help bees thrive. These include a [modular beehive](#) that mimics the shape of trees, roofs on bus stops that [attract pollinating bees](#), and [sustainable beehives](#) made from mushroom-based materials.

Written By: Katrina Lane

29th March 2022

Email: buzz@melibio.com

Website: melibio.com

Takeaway:

The global apiculture market is [projected](#) to reach \$11.8 billion (around € 10.70 billion) by 2026, up from an estimated \$9.5 billion (around € 8.61 billion) billion in 2020. At the same time, bees are vital for biodiversity and food production. It has been estimated that without bees, supermarkets may have [half](#) the amount of fruit and vegetables. And bees and other insects pollinate about 75 per cent of crop species. The need to balance the big business of honey, with the need to preserve and protect bee species is the driving force behind MeliBio, and the reason why bee-free honey has the potential to have a positive impact on food production as a whole.