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## PRESS RELEASE

### **“World first” bee-free honey moves a step closer**

Dutch plant-based ingredients pioneer Fooditive will begin large-scale production trials of the world’s first 100% bee-free honey in the New Year.

By mass-producing a bio-identical honey that eliminates the need to intensively farm honeybees, Fooditive aims to create a scalable, provenanced supply. As well as providing all the benefits of traditional honey, this will address consumer concerns about animal welfare and sustainability.

Leveraging the same patented biotech process already used to create Fooditive’s revolutionary vegan casein, which was launched last year, honey DNA is copied into a proprietary strain of yeast. When fed with nutrients and precision-fermented to replicate the metabolic processes that occur in the honeybee stomach, this yields a product with the same characteristics and functionality of bee-produced honey – from taste, colour and viscosity to its health benefits.

The production trials will recreate the lab-proven concept in 1,000-litre fermenters, with samples to be made available for potential customers to try and test out in their own applications.

Fooditive founder and CEO Moayad Abushokhedim said: “Our goal is to provide the world’s first 100% bee-free honey with no compromise on taste, quality or price. The process of genetic sequence modification used in our honey already has an established track record with our vegan casein. We believe our process will be the stepping stone for a revolutionary advancement in the food and biotechnology industries, enabling any animal product to be mimicked and even improved by bioengineering plant-based ingredients.”

The development of Fooditive’s bee-free honey has been driven by concerns that common apicultural management practices in commercial beekeeping can be detrimental to the welfare of farmed

honeybees and wild bee species that together play a vital role in pollination, increasing the risk of disease that can lead to colony collapse and declining wild populations.<sup>1,2,3</sup>

The global honey market is expected to grow at a CAGR of 5.2% between 2022 and 2030 due to increased demand from consumers who want to reduce white sugar use and focus on more nutritious ingredients. Honey is rich in vitamins, minerals and calcium<sup>4</sup> and also has medical applications, displaying anti-inflammatory, antioxidant, antimicrobial and anti-cancer activity.<sup>5</sup>

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**About Fooditive BV**

Based in Rotterdam, The Netherlands, Fooditive is a plant-based ingredient manufacturer committed to making healthy food available for all with its 100% natural ingredients. Since it was established in 2018, Fooditive has used its unique fermentation process to create a world-renowned sweetener, made from side-streams of apples and pears. The sweetener's unique approach provides not only taste but also functionality and a sustainable impact. As the world begins to recognize the value in veganism and sustainability, Fooditive has also recently launched a new plant-based protein that can be used in the food industry to replace dairy in food and beverage applications.

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<sup>1</sup> Genersch. Honey bee pathology: current threats to honey bees and beekeeping. *Applied Microbiology and Biotechnology* 87, 87-97 (2010)

<sup>2</sup> Fürst et al. Disease associations between honeybees and bumblebees as a threat to wild pollinators. *Nature* 506, 364-366 (2014)

<sup>3</sup> Graystock et al. Do managed bees drive parasite spread and emergence in wild bees? *International Journal for Parasitology: Parasites and Wildlife* 5(1), 64-75 (2015)

<sup>4</sup> Honey Market Size, Share & Trends Analysis Report by Processing (Organic, Conventional), By Distribution Channel (Hypermarkets & Supermarkets, Online, Convenience Stores), By Region, And Segment Forecasts, 2022-230, Grand View Research

<sup>5</sup> Fakhlaei et al. The Toxic Impact of Honey Adulteration: A Review. *Foods*. 9(11), 1538 (2020)