



## Mānuka Honey



### The Flora Advantage

- Bottled in 100% recyclable, food grade BPA-free PET jars
- 100% pure, premium mānuka honey from the wilds of the Northern island of New Zealand
- Sourced from a sustainable, eco-friendly, 100% Maori-owned beekeeping operation (winner of a number of farming and eco-friendly awards)
- Quality and authenticity assured with the Oaye traceability system and two grading systems: UMF™ and MGO
- Grade No. 1 amber creamed honey
- UMF™ License No. 2960
- Free of additives, preservatives, pesticides, and antibiotics
- Safe for children ages 1 and up
- Unpasteurized
- Filtered, creamed, stirred at low temperatures (122-158° F) for several days, and then aged to increase the MGO content to a standardized amount

### Description

Flora Mānuka Honey is produced by Onuku Ltd., a Maori-owned company based in Whakatane, New Zealand. The honey is sourced from several north island locations (Mount Tarawera/Lake Rotomahana and Central Plateau, East Cape and Northland areas) and licensed and certified under the UMF™ grading system as well as tested and rated for its MGO (methylglyoxal) content. Flora and Onuku have found a perfect partnership based on shared values of quality, honesty, integrity, and family.

Flora Mānuka Honey is licensed by the Unique Mānuka Factor Honey Association™ in New Zealand. This is an internationally recognized, third-party verification system that ensures identity, potency, and quality of mānuka honey. UMF™ graded products have been tested for three signature compounds that are all needed to ensure the honey is real mānuka honey made from *Leptospermum scoparium* flowers: Leptosperin, DHA (Dihydroxyacetone) and Methylglyoxal (MGO). The higher the UMF™ grading number on the product, the higher the concentration of signature compounds found in mānuka honey. None of these on their own are enough to guarantee it is real, 100% mānuka honey—and neither are rating systems based on pollen count. MGO is the main anti-bacterial ingredient unique to mānuka honey so Flora Mānuka Honey is also measured and

graded according to its MGO content (e.g. 100+ means 100 mg/kg of the MGO compound).

Flora Mānuka Honey is authenticated through lab testing under New Zealand's Ministry for Primary Industries (MPI) regulations. Monofloral mānuka honey must pass five tests—meeting minimum amounts of four chemical markers and a DNA test for mānuka pollen—to be considered 100% mānuka honey. Multifloral mānuka honey, like our MGO 30+ Honey Blend (blend of mānuka honey with New Zealand native bush honey), must pass the same tests but with lower amounts of the chemical markers required.

Additionally, Flora Mānuka Honey labels are tagged using the Oaye traceability system. NFC-enabled smart phones or phones with a barcode reader app can scan the label to learn more about their jar of honey (batch specific info, region info, lab test results, UMF™ certification, etc.). This, along with the UMF™ license, helps ensure confidence the consumer is getting authentic mānuka honey and not adulterated or counterfeit honey.

To learn more about the Oaye traceability system please visit: [www.Oaye.io](http://www.Oaye.io)





## Clinical Research Summary

Methylglyoxal (MGO) was identified in 2008 as the unique factor in mānuka honey. The researchers found that the mānuka honeys they were studying had amounts of MGO ranging from 38-761 mg/kg, up to 100 times as much as conventional honeys. The researchers also confirmed that MGO was the main—but not only—ingredient responsible for the pronounced antibacterial effect of the honey.<sup>1</sup>

In terms of safety, mānuka honey has had a number of studies showing it to be safe and free of side effects. One study in humans was done to see if there were effects on allergic responses, beneficial gut bacteria (*Lactobacilli* and *Bifidobacteria*), and any signs of systemically accumulated MGO. The results showed no negative changes in all cases after one month of daily use.<sup>2</sup>

Another study investigating mānuka honey in light of concerns for diabetics showed that MGO from mānuka honey is rapidly degraded in the digestive tract and so does not get absorbed systemically or affect MGO concentrations outside of the digestive tract. This further reinforces findings that MGO from mānuka honey acts locally and topically on mucous membranes in the digestive tract and is not absorbed into the bloodstream.<sup>3</sup>

Mānuka research in humans and animals is still in early stages. Case studies have shown positive results for clearing infections. Cell studies have found that it can inhibit a wide range of pathogens (e.g. *Clostridium difficile*, *Escherichia coli*, *Helicobacter pylori*, *Salmonella spp.*, *Staphylococcus spp.*, *Streptococcus spp.*), prevent and eradicate biofilms, and work in synergy with antibiotics. This is especially valuable when it comes to the issue of antibiotic-resistant bacteria.<sup>4</sup>

1. E. Mavric et al. Identification and quantification of methylglyoxal as the dominant antibacterial constituent of Mānuka (*Leptospermum scoparium*) honeys from New Zealand. *Mol. Nutr. Food Res.* 2008 Apr;52(4):483-9.

2. Wallace, A. et al. Demonstrating the safety of mānuka honey UMF® 20+ in a human clinical trial with healthy individuals. *British Journal of Nutrition* (2009), pp.1-6.

3. Julia Degen, Maria Vogel, Doreen Richter, Michael Hellwig, and Thomas Henle. Metabolic Transit of Dietary Methylglyoxal. *Journal of Agricultural and Food Chemistry*. 2013, 61 (43), 10253-10260.

4. Carter DA, et al. (2016) Therapeutic Mānuka Honey: No Longer So Alternative. *Front. Microbiol.* 7:569.

## Available as:

Blend	Size	Code	UPC
Mānuka Honey Blend MGO 30+	8.8 oz.	63020	0 61998 63020 4
Mānuka Honey Blend MGO 30+	17.6 oz.	63021	0 61998 63021 1
Mānuka Honey MGO 100+/UMF 5+	8.8 oz.	63022	0 61998 63022 8
Mānuka Honey MGO 100+/UMF 5+	17.6 oz.	63023	0 61998 63023 5
Mānuka Honey MGO 250+/UMF 10+	8.8 oz.	63024	0 61998 63024 2
Mānuka Honey MGO 250+/UMF 10+	17.6 oz.	63025	0 61998 63025 9
Mānuka Honey MGO 400+/UMF 12+	8.8 oz.	63026	0 61998 63026 6
Mānuka Honey MGO 400+/UMF 12+	17.6 oz.	63027	0 61998 63027 3
Mānuka Honey MGO 515+/UMF 15+	8.8 oz.	63028	0 61998 63028 0

## Ingredients and Directions

All of our Mānuka honeys are 100% monofloral mānuka honey except for the MGO 30+ blend, which is a multifloral blend of mānuka honey and New Zealand native bush honey. This is offered as an economical starter version to get to know the taste of mānuka.

**Suggested serving:** 1 tbsp (20 g) which contains 70 calories and 16 g of sugar (all naturally occurring, none added). Enjoy straight off the spoon, on toast, or added to your favorite tea.

**For retailer use only. Not intended for distribution to consumers.**

