

Thorburn Burns, D., Dillon, A., Warren, J., & Walker, M. J. (in press). A critical review of the factors available for the identification and determination of mānuka honey. *Food Analytical Methods*, 1-7.

“Mānuka honey is the monofloral product of *Leptospermum scoparium*, a New Zealand native plant, said to possess ‘non-peroxide anti-bacterial activity’ (Mavric et al. 2008), making it greatly sought-after world-wide” (p. 2).

[The authors refer to Manuka honey’s antibacterial activity, and state that this makes Manuka honey greatly sought-after worldwide]

“In addition to the antimicrobial activity in honey which is credited to hydrogen peroxide, ... mānuka honey possesses additional antibacterial activity, due to a phytochemical derived from the nectar of the flower (Wallace et al. 2010)” (p. 2).

[The authors refer to Manuka honey’s two types of anti-bacterial activity]

“Dihydroxyacetone, present in the nectar of mānuka flowers, is the direct precursor for methylglyoxal in mānuka honey, which is the major bactericide that contributes to mānuka’s additional bioactive properties (Adams et al. 2008, 2009)” (p. 2).

[The authors refer to methylglyoxal giving Manuka honey its bioactive properties]

“Mānuka honey is sought after because of its elevated antibacterial activity, which is classified in trade using a ‘unique mānuka factor’ (UMF). UMF corresponds with the concentration (w/v %) of an aqueous phenol solution exhibiting the same antibacterial activity in a well diffusion assay against *Staphylococcus aureus* (Wallace et al. 2010)” (p. 2).

[The authors refer to Manuka honey having ‘elevated’ anti-bacterial activity, and they state that the level of such activity is measured by UMF grade]

“Mānuka honey contains a unique phenolic compound, methyl syringate (MS), which is said to display the scavenging activity of super-oxides and inhibitory effects on aflatoxin production” (p. 4).

[The authors identify another compound in Manuka honey which has strong anti-oxidant effect]