



Ensuring the authenticity of Manuka honey

Manuka honey is produced in New Zealand by bees foraging on the Manuka bush. The honey contains unique antimicrobial activity, which has led to its use as a health supplement and in medical applications such as wound dressings. This means that this type of honey can command a premium price based on the level of antimicrobial activity it contains. Labelling of Manuka honey has become a particular concern as many different grading systems are used which can be very confusing. For this reason it is important to be able to verify labelling claims so that consumers can have confidence in their purchases.

Fera scientists working on the European Union funded TRACE project (2005-2009) developed and published profiling methodology for the identification of novel biomarkers of honey using high field NMR spectroscopy. We then began specifically looking at the antimicrobial properties of Manuka honey with the then Health Protection Agency (HPA). It was whilst carrying out this work that the unknown active ingredient that is responsible for the antimicrobial activity only found in Manuka honey was identified and Fera published further work using NMR spectroscopy to quantify the main active ingredient, methylglyoxal.

Working side by side with the Unique Manuka Factor Honey Association (UMFHA), the trade body that oversees all use of the UMF® trademark, Fera has implemented a range of methods to safeguard the Manuka honey supply chain and brand. A number of research projects are currently being undertaken to develop a robust set of naturally occurring biomarkers that can be used to determine if Manuka honey has been labelled appropriately. These international projects are highly collaborative and include government and commercial collaborators particularly in New Zealand and China.