

Mānuka Honey

understanding *Leptospermum* from *Leptospermum scoparium*

IN NEW ZEALAND the *Leptospermum scoparium* plant is called the Mānuka tree. It is a plant that sits within the larger ‘genus’ (group) of *Leptospermum* plants of which there are currently over 80 different species recognised. Most of these different species are found in Australia. Only one of the *Leptospermum* genus – *Leptospermum scoparium* – naturally occurs in New Zealand. It is found throughout the country in large stands. *Leptospermum scoparium* is also found in Australia – most typically in Tasmania, and more rarely in Victoria and southern New South Wales.

SIMILAR TO THE CITRUS GENUS, where an orange is different to a lemon, *Leptospermum scoparium* is different to all the other species that come under the broader *Leptospermum* genus.

In Australia, there are many other much more common *Leptospermum* species growing amongst the *Leptospermum scoparium* plants, including those in Tasmania. It is highly unlikely that honeybees would differentiate between the *Leptospermum* species and selectively target *Leptospermum scoparium*.

When compared side by side, the honey derived from predominantly *Leptospermum scoparium* – the Mānuka tree – in New Zealand is very different to the honey derived from the collection of Australian *Leptospermum* plants. There are easily recognizable physical and visual differences, along with chemical and, very probably, bioactive differences.

The physical and visual differences are perhaps the easiest to spot. In fact, these are so pronounced that most consumers would be able to tell the difference between the two honey types, if these were viewed next to one another. Australian *Leptospermum* honey has a universally darker colour compared to Mānuka Honey from New Zealand, which has a lighter more natural looking hue.

The Australian *Leptospermum* honey is also more prone to forming flowers of crystal after it has been sitting for a period of time on a retail shelf. This is primarily due to differences in the chemical constituents in the honey which is driven by floral source.

For example, in Australia one of the main nectar sources are the many *Eucalyptus* genus which are found amongst the other plants that grow there. Eucalypt plants are widespread and common, forming an integral part of the landscape. They produce nectar with high levels of sugar and are, therefore, very attractive to honeybees. Eucalypt honey has been harvested in Australia since the introduction of European honeybees and is marketed as various mono-floral honey types. Eucalypt honey has a unique chemical signature marker that has been scientifically defined. It also has a distinct flavour. As these species are common, attractive to honey bees and widespread, all Australian ‘bush’ honey is expected to carry a proportion of Eucalypt honey. Because of the Eucalypt honeys’ characteristics, this presence is readily detected by consumers through taste.

Honey is a complex mixture of many natural components. The mixture is influenced primarily by the flower source visited by honeybees. As a result, the pollen load in Australian *Leptospermum* honey is very different to that of the New Zealand *Leptospermum*

scoparium honey. While this difference would not be readily identified by consumers, the nutritional values between the two honeys would be expected to differ as there are significant differences in the protein and lipid composition of pollens collected from various plant species.

Considerable work has been completed on the chemical profiles of Australian and New Zealand honeys. This means that it is reasonably straightforward to distinguish the two honey types. Of particular interest is the elevated levels of 2-methoxybenzoic acid which is

universally found in Australian *Leptospermum* honeys. It is a well-known bittering agent used by the food manufacturing industries. In fact, research shows that the standard

consumer response to consuming Australian *Leptospermum* honey is one of distaste due to a strong bitter flavour. A review of Australian beekeepers’ journals demonstrates that their *Leptospermum* honey, historically called tea-tree or jellybush honey, was not a sought-after or desirable crop, and beekeepers traditionally avoided placing hives in districts where *Leptospermum* honey was harvested.

The Australian honey industry has not historically produced what it now often calls ‘Australian manuka’ honey. The first frequent use of ‘Australian manuka’ occurred around 2015, after which point it became more commonly used.

To help illustrate another important point, it is worthwhile looking at two other well-known honeys in New Zealand. Pohutakawa honey is harvested from the *Metrosideros excelsa* plant – common name Pohutakawa – which is found primarily in the Auckland region. Rata honey is harvested from the *Metrosideros umbellata* plant – common name Rata – in the Westland province of New Zealand. These honeys are similar in appearance and command a higher price compared to standard pasture type and bush blends. Due to codex labelling regulations, it would be fraudulent to sell in New Zealand Rata honey as Pohutakawa. Doing so would mislead consumers and would be regarded as an illegal practice.

The question, therefore, remains: Why some operators in the Australian honey industry decided to adopt the name ‘Australian manuka’ for *Leptospermum* honey, given that the honeys are distinct, and those differences are readily detected by consumers?

The decision to do so is clearly not supported by science, is misleading and, at worst, could be cynically viewed as an attempt to deceive consumers. ●

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