

# Onuku

PREMIUM MĀNUKA OIL

*Onuku 100% Pure Mānuka Oil is truly motuhake (special).<sup>1</sup>*



Harvested in the East Cape region of New Zealand's North Island, the first place in the world to see the sun, where flora and fauna produce large volumes of beneficial polyphenols in mānuka flowers and  $\beta$ -triketones in mānuka oil.

Extracted by steam distillation of the foliage and branchlets of the mānuka tree (scientific name: *Leptospermum scoparium*), this powerful essential oil has been found to contain strongly antimicrobial and fungicidal properties.



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### Distinguished by purity

An ultra-high degree of purity most distinguishes our mānuka oil. In a crowded marketplace of diluted oils and oils of uncertain provenance, we know the areas of harvest and conditions of oil production.

And as mānuka honey and oil specialists we enjoy a close, cooperative relationship with the actual distillers of the oil. Unlike transient traders in this nascent industry, we can put place and face to our products.

Available in a 10mL bottle, 1 litre aluminum bottle and a 12 x 10ml bottle carton.



### Properties beneficial to health

Health beneficial properties of the mānuka tree have been known to our ancestors for centuries. Mānuka leaves, bark, and ash have each been used to treat a range of maladies, in particular skin conditions.

Mānuka honey, produced from the nectar of the mānuka flower, is relatively new as our native bees are solitary and therefore do not build honeycomb. Honey production became possible only after the introduction of the European honeybee via Australia in 1839.

Although mānuka oil has been shadowed by mānuka honey, interest in the oil is now surging among health practitioners and lay people alike as evidence builds to its multiple aroma-therapeutic and curative effects.

### The chemistry

The chemical compounds contained in mānuka oil typically divide into four groups:

- (1) monoterpenes (2.1%-66.3%)
- (2) sesquiterpenes (16.2%-77.4%)
- (3) triketones (0.1%-33.3%)
- (4) methyl cinnamate (0.1%-23.9%)<sup>2</sup>

Of these four, triketones are of special interest. Mānuka oil harvested in the East Cape region of the North Island (and to lesser extent in Marlborough Sounds at the northern tip of the South Island) is especially rich in triketones.

Within the category of triketones is a second or sub-category called beta-triketones (beta is the second letter  $\beta$  in the Greek alphabet.) The triketones found in mānuka oil are grouped into this subset. There are four such "beta-triketones". They are flavesone, isoleptospermone, leptospermone, and grandiflorone.

Such triketone-rich mānuka oil has activity against pathological bacteria, for example Staphylococcus, Listeria, Enterococcus and some fungi, for example Trichophyton, Microsporum, as well as anthelmintic and insecticidal activities.

The unique activity of East Cape mānuka oils against Gram positive bacteria, for example Staphylococcus aureus and its antibiotic resistant strain MRSA, is due to the presence of triketones, according to scientific research.

### Mānuka oil in personal care products

This biologically active oil is winning acceptance as an easy-to-use natural additive that boosts the antimicrobial power of personal care products. Consumers are adding two-three drops to cleansing face washes, anti-dandruff shampoos, body lotions, hand washes, mouthwashes, shower gels, deodorant sticks / rollers, foot sprays, and directly into bath water.



### Aromatherapy and massage

Those seeking a calming aroma-therapeutic effect add mānuka oil to a room diffuser and relax amid the soft vapor while others lightly scent their room by adding it to potpourri. In the belief that the vapor can relieve stress still others hold their face above a bowl of hot water infused with drops of the oil.

The oil is also finding favor among masseurs who apply small amounts directly or in a mix with oils such as avocado, jojoba, or rosehip.

#### Cleaning yes Laundry no

Some householders add mānuka oil to a water spray to clean surfaces throughout the house. We do not recommend that the oil is added to laundry as in our experience it will stain white fabrics (cotton shirts and sheets, for example) a faint yellow.

#### Cosmetics

Mānuka oil is accepted as a cosmetics ingredient by the Personal Care Products Council of the U.S. whose standards are adopted industry-wide in Japan among other countries. Beauty soaps and balms are just two of the cosmetic types in which mānuka oil is making its presence felt. Consumers report that the oil appears to amplify the skin-regenerative effect of mānuka honey.

#### Skincare

Scientific research has shown mānuka oil to be effective *in vitro* against conditions such as athlete's foot, fungal skin infections, and nail fungus.

Some users report positive results against acne, eczema, and cold sores.

Mānuka oil remains, nonetheless, a folk or alternative remedy. It is highly potent and only very small amounts should be applied topically. Those who suffer skin conditions should first consult a dermatologist.

#### Storage and shelf life

Store in a cool dry place away from heat and light. If stored in this way mānuka oil should maintain its potency for at least three years. Shelf life is set at three years from production date.

#### Cautions

For external use only. Do not ingest. Avoid contact with eyes and inner ears. Patch test before applying to skin as mānuka oil may cause an allergic reaction.

Or dilute with a carrier oil to minimize any skin sensitivity. Keep out of reach of children and pets. If pregnant, nursing, or under a doctorate, consult your physician.

#### Social & Environmental benefits

Growing demand for mānuka oil is benefiting the underdeveloped East Cape region through providing employment opportunities and encouraging the replanting of mānuka trees in deforested areas. Onuku is proud to contribute to this sustainable development.

#### Genuine mānuka oil, Australian "manuka" oil, and "tea tree" oil<sup>3</sup>

*Mānuka* is a word of Maori origin that describes only the species *Leptospermum scoparium*. As New Zealand has no other plant species in the *Leptospermum* genus, genuine mānuka oil can be obtained only from this plant and only from within New Zealand. Furthermore, mānuka is officially recognized in New Zealand as a *taonga* (treasure) governed by Māori rights.



Les Stowell Onuku Mānuka Plantation

Australian "manuka" oil, a misnomer and cultural misappropriation of a word belonging to Maori, can be made from any of the 80 or so species of *Leptospermum* found in Australia.

Australian "tea tree" oil is made mostly from *Melaleuca alternifolia* (commonly known as "narrow-leaved paperbark" or "narrow-leaved tea-tree") but sometimes also from *Melaleuca linariifolia* and *Melaleuca dissitiflora*. All three trees are endemic to Australia and, along with *Leptospermum scoparium*, belong also to the *Myrtaceae* family of trees. But that family grouping is where the similarities end. According to scientific research, mānuka oil of New Zealand origin is many times stronger than Australian "tea tree" oil.

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#### Notes

<sup>1</sup> *Onuku* is a Maori word which means "remnants of a volcano". The "remnants" are lands at the base of Mt Tarawera, located 24 kilometres southeast of Rotorua. The eruption Mt Tarawera in 1886, in which many Maori settlements were buried or otherwise destroyed, claimed some 150 (mostly Maori) lives. It is recorded as the deadliest eruption in New Zealand's European history. The eruption created new lakes and caused the destruction of the pink and white terraces, which were regarded as a natural wonder of New Zealand (and, by some observers at the time, the eighth wonder of the world). The region is steeped in myths inspired by tragedy and rebirth wherein lies the spiritual home of *Onuku*.

<sup>2</sup>A percent area measurement made by gas chromatography (GC) analysis. All batches of *Onuku 100% Pure Mānuka Oil* are analyzed for beta-triketone and other chemotype content. Laboratory reports are available upon request.

<sup>3</sup>"Tea tree" is a loose term employed by European colonial settlers of both New Zealand and Australia to describe any tree from whose leaves tea was made. As early European voyagers to New Zealand were recorded to have made a tea from mānuka leaves, the mānuka tree came to be known as "tea tree".

Europeans similarly called New Zealand's glorious pohutukawa tree "Christmas tree" and stately rewarewa tree the "New Zealand honeysuckle". Most New Zealanders today use the word "mānuka" to describe the oil (and the honey) and more readily use original Maori terms for place and plant than did their forebears. However, Australians, perhaps still in a colonial mindset, continue to use the term "tea tree" apparently without investigating the Aboriginal names of the trees they distil for oil.

#### Key research papers

(1) Douglas M.H., et al. "Essential oils from New Zealand manuka: triketone and other chemotypes of *Leptospermum scoparium*". *Phytochemistry*. 2004 May; 65(9):1255-64. <https://www.ncbi.nlm.nih.gov/pubmed/15184010>

This is an expansion of the earlier survey report, "Defining the North Island manuka chemotype resources" (July 2001) in *Crop & Food Research Report* No. 447. New Zealand Institute for Crop & Food Research Limited (since 2008, the renamed New Zealand Institute for Plant and Food Research).

The map of New Zealand showing "sampling sites and triketone levels of *L. scoparium*" is excerpted from the paper "Essential oils from New Zealand mānuka: triketone and other chemotypes of *Leptospermum scoparium*" in (1) above.

(2)"A fresh look at mānuka and kanuka essential oils from New Zealand". Maddocks-Jennings, W., et al. *International Journal of Aromatherapy* (2005).