



Manuka – essential oil

Leptospermum scoparium

Mānuka, is an evergreen shrub native to New Zealand. The Maori people call it kahikatoa. It is also known as New Zealand tea tree oil because it shares many properties with its Australian counterpart, although tea tree belongs to a different species (*Melaleuca alternifolia*). Between September and February, the summer season in the southern hemisphere, the manuka plant produces white or pink flowers which attract many insects including bees and invertebrates because of the high nectar content.

Throughout the world manuka honey made from the nectar has come to be well known and its healing properties have been harnessed mainly in the field of wound healing, particularly wounds which have proven difficult. From the earliest human habitation of New Zealand by the *Māori* people around 800 to 1000 years ago, the mānuka plant was known to have special medicinal and therapeutic properties.

“History records a diverse range of uses by both indigenous Māori and early European settlers. These include infusions for ‘immoral people’, urinary and intestinal complaints, as a febrifuge, sucking the gum for coughs, vapour inhalations for colds, poultices for back pain and skin conditions, inflamed breasts, burns and scalds, mouthwashes and gargles, gum disease. The wood was also used for canoe structures, fishing tools, gardening tools, war weapons and firewood. The gum or manna has mannitol as a main ingredient, which was used medicinally to relieve oedema and remove excess fluid from the body”

- [Booker et.al., 1987](#)

The diverse range of ways that mānuka was used for treating ailments is quite impressive. These different preparations were used to reduce fever, treat head colds, stiff back and joints, treat constipation, induce vomiting, taken as a relaxant before going to sleep, for pain relief after injuries, as a mouthwash, to treat gum disease, bathing sore eyes, soothing burns, purifying the blood, reducing inflammation, treating dysentery, alleviating colic and many more. Apart from its medicinal properties manuka wood was used for building canoes and other daily essentials.

Modern science is beginning to unveil the extraordinary healing properties of mānuka and its sister plant kanuka whose essential oil is known as kunzea.

Here's a list of the health properties of mānuka oil. To learn more, click on the links to read the books and research studies where these claims are made:

- Analgesic - provides relief from pain.
- Anthelmintic - kills parasites.
- Antibacterial/bactericidal - kills bacteria and prevents them from multiplying (East Cape mānuka oil also kills antibiotic resistant bacteria such as MRSA due to the high triketone content).
- Anti-dandruff - prevents dandruff from occurring.
- Antihistamine - inhibits the effects of histamine.
- Anti-inflammatory - reduces inflammation and swelling.
- Antifungal - kills fungus and prevents it from spreading.
- Antiseptic - prevents infection by destroying microbes.
- Cicatrisant - promotes healing of the skin by forming scar tissue and encouraging new skin cell growth.
- Cytophylactic - helps to maintain healthy skin cells by protecting against lytic agents.
- Deodorant - prevents body odour by killing the bacteria that cause the smells.
- Expectorant - promotes the secretion of mucus and sputum in the airways. Great for helping to clear a blocked throat.
- Herbicidal - East Cape mānuka oil is known to naturally kill weeds thanks to the presence of triketones.
- Immune stimulant - stimulates the immune system.
- Insecticidal - kills insects such as mosquitos, sandflies and spiders.
- Relaxant - promotes relaxation and reduces tension.
- Spasmolytic - relaxes smooth muscle and relieves spasms.
- Vulnerary - helps wounds to heal.

Some research into these properties is to be found at the following sites:

https://www.researchgate.net/publication/248871369_A_fresh_look_at_manuka_and_kanuka_essential_oils_from_New_Zealand

https://books.google.co.nz/books?id=fQcmCwAAQBAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false

Although manuka grows profusely throughout New Zealand and in the past was regarded as a pest, the oil obtained from the plants growing in the East cape area of the north island have been seen to have some special properties. This was discovered quite by accident when the Maori Trust in the East Cape region contacted Alan Cooke at the Cawthorn Institute.

The trust owned a large amount of land that contained mānuka trees. They were considering whether to chop the trees down and use the wood for things like furniture and flooring, or find another purpose for these resources. Removing the trees would result in lots of timber being harvested. However, the amount of leaves and foliage on mānuka trees would have made this quite a challenging task. In order to see if there was any value that could be harvested from the foliage, they decided to extract a sample of mānuka essential oil and get it tested for antibacterial activity.

The results of the tests were incredible so further research was undertaken, and a company, Tairawhiti Pharmaceuticals, was setup to sustainably produce mānuka oil. Today, around 90% of mānuka oil in New Zealand is made by two companies on the East Cape.

Research efforts have mainly focused on a group of compounds found in East Cape mānuka oil called triketones. Mānuka oil produced in other parts of New Zealand also has a range of great health benefits thanks to other compounds such as monoterpenes and sesquiterpenes. However, most mānuka oil from other parts of the country contains less than 5% triketones. The chemical composition of mānuka oil varies greatly throughout the country.

Triketones:

*“Mānuka oil, particularly the triketone rich chemotype, has **activity against pathological bacteria**, e.g. *Staphylococcus*, *Listeria*, *Enterococcus* and some fungi, e.g. *Trichophyton*, *Microsporum*, as well as **anthelmintic and insecticidal** activities. The unique activity of the East Cape mānuka oils against **Gram positive bacteria**, e.g. *Staphylococcus aureus* and its antibiotic resistant strain **MRSA**, has been conclusively proven to be due to the presence of triketones.”*

In vitro studies (tests carried out in a controlled environment) also found East Cape mānuka oil to be effective at killing herpes types 1 and 2 (HSV1 and HSV2). The triketones that East Cape mānuka oil contains are: leptospermone, isoleptospermone, flavesone and grandiflorone. Generally, East Cape mānuka oil has at least 25% triketones (and sometimes up to 40%).