

A close-up photograph of Douglas Fir branches with vibrant green needles and small, reddish-brown buds. The branches are set against a clear, bright blue sky. The lighting is natural, highlighting the texture of the needles.

dōTERRA®

# Douglas Fir

New Zealand: A Co-Impact Sourcing Story



Douglas Fir

## About New Zealand

The name for New Zealand in Māori is Aotearoa, which translates to “land of the long white cloud.” Located in the South Pacific Ocean, New Zealand is composed of two long islands, Te Ika a Māui, the North Island, and Te Wai Pounamu, the South Island, as well as some smaller islands. The Māori have lived in New Zealand since around 1300 AD.

With glacial lakes and fjords, active volcanoes, snow-capped mountains, black sandy beaches, pastureland, and major cities, New Zealand’s landscape is varied and dramatic. While the North Island is composed of active volcanoes, mountains, and black or white sandy beaches, the South Island is larger but less populated with the Southern Alps mountain range covering its length. New Zealand has various climate zones being sub-tropical in the Far North, and cool and temperate in the South.

*Aotearoa*

New Zealand is also known for its unique birds and vegetation. New Zealand separated from the continent of Gondwana before the evolution of mammals, so there are actually no native mammals. Because of the high rainfall, much of New Zealand is lush and green, with more than 1,500 species of trees and plants, many not seen anywhere else on earth. Under the native trees, a dense undergrowth of shrubs, ferns, mosses, and lichen generally grow. It is a beautiful country rich in biodiversity and one with a very fragile ecosystem.

## The Right Tree in the Wrong Place

Native to the northwestern coast of North America, Douglas Fir trees were introduced to New Zealand around 1859. In New Zealand, the trees grow much faster than in the United States, and so the New Zealand State Forest Service chose to plant Douglas Fir as a timber species.

With the favorable climate in the South Island, the Douglas Fir trees found good form and reproduced well. However, the thick canopy created by mature Douglas Fir trees unfortunately crowded out the native undergrowth plants as a result. Douglas Fir requires only about 40% of full light to grow to canopy level, so the canopy created by the full-grown trees does not inhibit growth of younger Douglas Fir saplings. When the trees release cones, they create an ankle-deep carpet on the forest floor, which prevents other plants from germinating. The seeds, which are produced by the thousands within Douglas Fir forests, are light and can be carried by the wind for many miles. Between the dense canopy blocking out the light, and the thick, acidic carpet preventing germination of other plants, many native species cannot grow and native birds must find new homes.

Although Douglas Fir is permitted to be grown for timber in suitable and well-tended plantations, the favorable conditions in New Zealand for Douglas Fir along with its ability to inhibit the growth of native plants means that these wilding trees have covered huge areas of land. In the right place, these Douglas Fir trees can offer economic opportunities through timber; but as they have spread, they invade native ecosystems, farmland, and water catchments - and as such, require organized action to control and prevent further spread.



Douglas Fir Harvesting





Wilding Douglas Fir

## Douglas Fir in New Zealand: A Solution

The invasive Douglas Fir trees are known in New Zealand as “wildings,” meaning trees that are spreading on their own in places they are not welcome. As the New Zealand government became aware of the problems caused by wilding Douglas Fir, they were forced to manage the continued spread of these and other invasive trees. Over the years, there have been multiple volunteer-driven groups and Government agencies actively engaged in control operations.

dōTERRA’s wholly-owned entity in New Zealand, aōTERRA, collects and processes the needles of the young Douglas Fir saplings, as well as new growth of older trees, to produce the finest Douglas Fir essential oil. The production of essential oil from young “wilding” trees in pre-coning stages, as well as new growth, helps to prevent further spread of new “wilding” trees while also providing a sustainable outlet for these invasive trees to be removed. The removal of “wildings” in turn supports the ecosystem through the regeneration of native species as they can once again flourish without the

suffocating canopy of Douglas Fir. For dōTERRA, this provides a sustainable opportunity to make available a beautifully beneficial profile and distinctive of Douglas Fir essential oil while helping to preserve New Zealand’s very unique biodiversity.

aōTERRA, while owned by dōTERRA, is really a New Zealand company that supports not only the local environment, but also the local economy. Built and managed by New Zealanders, aōTERRA provides value-added rural employment and uses unique, locally-made equipment to ensure that every aspect of their work gives back to the local community.





## QUICK FACTS

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**One of the least densely populated nations**, New Zealand is 1,000 miles long and 280 miles across at its widest point - slightly larger in surface area than the United Kingdom

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**The Māori name for New Zealand is "Aotearoa,"** which translated means "land of the long white cloud"

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**dōTERRA's wholly-owned distillery aōTERRA** is managed by New Zealanders

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**New Zealand is a bilingual country** speaking both Māori and English

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**About one-third of the country is covered in mountains.** Aorangi, Mt Cook is 12,218 feet above sea level. Because of its harbors and fjords, New Zealand has a very long (9,300 miles) coastline relative to its size

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**Because of New Zealand's location** on two tectonic plates and the Pacific 'ring of fire,' it has frequent earthquakes and active volcanoes

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**Douglas Fir is an evergreen conifer** that grows natively throughout North America, but was introduced by the timber industry in New Zealand

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**Douglas Fir trees are one of the tallest trees** in the world and can live for over 1000 years

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**Douglas Fir trees are frequently used in the Christmas tree industry** and have a warm lemon-scented note that is sweet and refreshing

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**"Wilding" Douglas Fir** is the New Zealand term to describe trees that have grown as a result of the propagation of seeds that have spread across the landscape of New Zealand on their own, becoming invasive

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Douglas Fir Collection



Douglas Fir Distillery

## Distillation

To produce dōTERRA's exclusive Douglas Fir essential oil, aōTERRA uses food grade stainless steel mobile distillation units. The mobile distillation units allow the green material to be immediately steam-distilled as precious essential oil is lost by evaporation if not distilled within a few hours of collection. aōTERRA's distillation facility is surrounded by the majestic Southern Alps, and plans to continue producing aromatic Douglas Fir oil while also developing production of other unique and exquisite essential oils from native New Zealand species.

### References

- <https://www.britannica.com/place/New-Zealand>
- <https://www.doc.govt.nz/nature/pests-and-threats/common-weeds/wilding-conifers/>
- <https://www.wildingconifers.org.nz/>

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