Planting and Managing Native Trees



Technical Handbook

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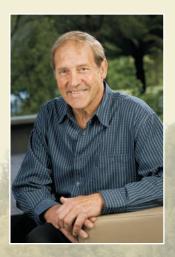




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Foreword Why Plant Native Trees?

by Peter Berg Chairman of New Zealand Forest Owners Association and member of Tāne's Tree Trust

The isolation of New Zealand from other land masses for tens of millions of years means that as many as 80% of its indigenous plant species are endemic. This means that most of our native plants occur nowhere else in the world and accordingly have global significance.

Sadly, the widespread conversion of forest land to pasture and heavy demand for many native timbers by settlers, in particular the conifers matai, rimu, kauri, totara and kahikatea, has reduced New Zealand's forest cover from about 80% of the land surface to a little over 20% - with some species now having threatened status. If New Zealanders wish to retain the unique character of their native trees and forests, and the benefits that arise from these trees, they must be active in their efforts to both protect and enhance this resource.

As land clearance caused a decrease in the volume of native timbers, plantation-grown exotic species - particularly radiata pine (*Pinus radiata*) - became dominant in the wood products industry. Protection was afforded to most of the remaining indigenous forest and native timber became almost non-existent in the New Zealand timber industry. Farmland was almost completely cleared of native bush with only scattered fragments remaining in occasional gullies and other less accessible areas.

Times are now changing. There is wide general agreement that native trees have many values, some economic and others less easy to define, but just as important. We are emerging from the dichotomous state of having native forests protected in conservation reserves, with our wood product requirements met by exotic species, to a position where many more native trees are being planted with some productive use in mind. This new approach is already adding significantly to the overall native forest estate, bringing economic benefits and also pleasure to the people who are involved in planting, managing and protecting native trees for the future.



In addition to preserving native tree species, this planting also preserves the habitat of other native species, especially birds and insects. Riparian stream margins planted with native trees and shrubs moderate water temperature and enhance their habitat value while reducing stream bank erosion. In both urban and rural environments, such plantings have additional landscape and aesthetic values.

Native trees also provide economic benefits. The New Zealand wood products industry revolves around radiata pine because of its relatively easy management, rapid growth and versatile wood properties. However, this timber has a number of limitations, particularly in high value end-use markets. Our native trees provide an alternative suite of timbers with a range of characteristics including greater hardness, durability, more distinctive colour and form, and outstanding wood-working properties. Accordingly, a number of native species are prized for high value end uses.

The focus on forests has recently widened to include a range of environmental benefits ranging from carbon sequestration as a counter to global warming, to holding in place the country's precious soil mantle. Forests are also acknowledged as sources of clean water and as reservoirs of natural biodiversity. Where these objectives are paramount, permanent forests with a mix of species are more robust, but still have the capability to supply economic supplies of wood on a sustainable basis. In addition, New Zealand trees have an established resistance to native pests and the local climate, and have an inbuilt genetic diversity that may not exist in the quite selective importations of exotic species.



With a well planned planting regime and careful management it is now recognised that a number of native species can provide utilisable timber from thinnings, as early as 30-40 years after planting. Once a cycle of selective logging and continuous cover is established the system can continue in perpetuity.

There are a host of other potential productive benefits from forests. For example, the pioneer/nurse species manuka (*Leptospermum scoparium*), is increasingly being used for a variety of purposes, including honey, oils, wound dressings and cosmetic products. There is a base of cultural knowledge now becoming more widely supported by scientific evidence that several native shrub and tree extractives have important medicinal properties.

From a considered perspective then, there is a strong and easily understood rationale for planting native trees. But there is more ... our native trees and forests may endure and continue to provide these values over several human lifetimes. So by planting trees we are making a decision that can provide the same benefits to our children's children and beyond.

Time is the best test of the quality of our contribution... plant native trees and ensure it is a long one.





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