



After nearly a year of planning the Trust is well on the way to producing a memorable conference which will celebrate the ten years since our founding conference, "Native Trees for the Future", investigated the dismal situation that existed in 1999. That meeting recognized that as well as Government indifference, the major problem of the time was the extremely variable attitude of local government agencies toward the planting of native trees for productive purposes. The concluding discussion in 1999 resolved to set up, "A continuing forum for discussion and the formulation of ideas and proposals to encourage and facilitate the planting of indigenous species in production plantings and otherwise."

Beginning a year later a small group began to investigate how this might be achieved and gradually expanded to form Tāne's Tree Trust two years later. It is interesting to note that seven out of the original committee of eleven, which organized the 1999 conference, are Trustees today and another, Gordon Stephenson, is our patron.

Since its inception the Trust has gone from strength to strength and, while it has dealt to some extent with the issue of local government's attitude, it has expanded into a wide range of other areas. Chief amongst these has been the publication, either alone or in concert with others, of a series of publications on the growing of native trees. So far there have been eight of these, with two more in the pipeline. In addition we have published several papers of scientific or more limited interest as well as the newsletter -now appearing three times a year.

The Conference to be held in November has been designed around four workshops in order to enable the full participation of all who attend. These workshops, which are more fully described in the accompanying brochure, are designed to come to grips with four issues about which there is currently much concern.

- How to utilize and manage second growth regeneration of two of our most important trees -totara and the beech species?
- How can we produce native seedlings more cheaply?
- Try and sort out the question of eco-sourcing which, while it has its place in specific situations, has become a Hydra headed monster which is placing unnecessary restraint upon replanting.
- What research is needed and how can we get more funding into this important area?

The Trust has obtained some funding for the Conference, which has been difficult in these testing times. Thanks to the generosity of the Sustainable Farming Fund who have granted us \$10,000 and to several other sponsors who are listed in the brochure we have been able to reduce the registration cost of the three day conference to \$95 and we hope that

this will enable a good number to attend. As the maximum space available is only 190 we suggest early registration if you do not want to miss out. Part of the cost of the Conference is to facilitate the publication of the Conference Proceedings and it is anticipated that these will be published early next year. All attendees will get a copy as part of their registration.

A conference such as this takes a large amount of preparation time by the Trustees and several others who have been heavily involved. This being so there is unlikely to be another for some time and you should make sure you get to this one. We are indebted to the Centre for Continuing Education of the University of Waikato for taking over all of the organizing arrangements, including the work involved with Registration. The brochure has full details about this and it is hoped that most attendees will take advantage of the excellent accommodation and breakfast offered by the University Halls of Residence.

MANAGING *native trees* towards a National Strategy



TRUST ACTIVITIES – to August 2009

A great deal has been going on since this report was last made (May 2008)

Projects: We currently have six projects underway. Two of these have received the bulk of their funding from the Sustainable Farming Fund (SFF). The production of the bulletin on the beech species is on target for completion in June 2011. Visits have been made to the parts of the South Island by David Bergin and Mark Smale who have had discussions with many people involved with beech, including John Wardle and Jon Dronfield. Visits are planned to others areas, including the lower North Island later this year, so if you are growing beech you should contact David at David.Bergin@scionresearch.com because they would like call on you. The National Survey of indigenous plantations for carbon accounting and growth rates has begun and is also scheduled for completion in June 2011. David is also running this and is anxious to hear from anyone who has planted native trees; please contact him at the address above. Data collected from the plantation survey is being entered into the Permanent Sample Plot system operated by Scion. In addition the Trust is setting up its own database to record planted areas which are too small to carry sample plots, as well as summaries of sample plot data from other sites. This information will eventually be accessible by Trust members through the website. The data entry is largely funded by a grant from FIDA which is a forest industry fund operated by MAE. We have a project funded by the Lake Taupo Protection Trust (LTPT) which will see a planting trial, comparing bare rooted with container grown native species, planted on a property in West Taupo, in September. This work is being done by Roger MacGibbon and David and Michael Bergin, with help from other Trustees. It is hoped to expand these trials in future years. The indigenous establishment hand book, mainly funded by FITEC with help from SFF, is almost ready and will be launched at the Conference in November. It will not be complete because there is a large amount of information to include but, as it is loose leaf with stand alone topics, it can be added to. The initial publication will cover all topics up to, and including, planting and weed control. The Trust has yet to decide on the programme for publishing the other topics but it is expected that these will be put out as individual sections to add, as funding permits. Finally the Conference, which has been generously supported by the SFF and a number of other sponsors, who are listed on the brochure included with this newsletter, will be held from 18 – 20 November this year.

Future Forests Research: This organization, based in Rotorua, has the function of obtaining and co-ordinating research funding (sourced from ForST and the forest industry) for Scion. Part of this budget, albeit small at this stage, is for indigenous forest research. The Trust has joined FFR and by so doing has an input into the research programme.

Northland Totara Working Group: The trust has supported the NTWG since its inception and will continue to do so. The first project, ascertaining the extent of the resource and establishing growth plots, is complete and will be reported on at November's

conference. Funding is now being sought for studies of wood quality.

Strategic Plan: The three year plan is due for revision early next year. To date we are on track, having achieved 34% of our targets with a further 39% underway. Several of the remainder are scheduled for completion at the end of the 3 year period.

Renewal of Subscriptions:

Subscription notices for the 2009/10 year are sent to you with this newsletter. This is later than usual and was occasioned by the absence of Ian Barton overseas at the time the last newsletter was sent. As was pointed out last year, dealing with and chasing up subscriptions takes a lot of time that could be better employed on project work so the Trust would be grateful if you could renew your subscription early and, if you do not wish to continue with membership, please let us know. Those members who have paid in advance or who joined after 1 January 2009 have paid for the 2009/10 year and will not receive an account but those who are still in arrears will have a red sticker on this envelope and their account will show the payment due for two years.

A.G.M Wednesday November 18th 2009 Waikato University, Hamilton: This year's A.G.M. will be held at the end of the first day of the November Conference. An agenda is included with this newsletter. It was decided to hold it at this later date in order to give more people a chance to attend. Maggie Lawton has retired as a Trustee, and this year Ian Barton, Ian Campbell and Roger MacGibbon retire by rote. All three are available for re-election. A nomination form for trustees is attached to the AGM notice.

Donations and Sponsorship: The Trust continues to be indebted to the Sustainable Farming Fund for money made available for several of our projects. In addition the past year has seen sponsorship contributions from F.I.D.A., Commonwealth Forestry Association, Environment Waikato, New Zealand Landcare Trust, Northland Regional Council, FITEC and the Lake Taupo Protection Trust.

During the 2008/09 year donations were received from the following network members: -

S Anderson	D & J Gillies	B McClure
M Andrews	H Gordon	D McDonald
S Austen	B Grant	D M McIntosh
Baker Boys Wholesale Nursery	B T & E J Gray	A McPherson
C Barnard	H Gray	P McKelvey
M Barr	S Gray	J Purey-Cust
S & A Barrett	Greenmantle Tree Farm	C Quinn
P Berg	R & M Haliburton	A Reid
J Black	D Hammond	R Robinson
N Bryant & B J Austen	M Hayes	T Roxburgh
G Brough	G Hill	P G Shepherd
L Burdett	P Houghton	J Smith
L Carr & C Ward	M Johnston	Specimen Tree Company
P Carr	T Le Gros	A S Steward
B Chittenden	A Levett	R Storey
C Cole & S Ransom	C & A Lewis	G Tripe
D G Cooper	A Luddington	M von Tippelskirch
R Cooper	H Luschberger	K Weytmans
W F & L M Davies	P & D Lyders	D White
G Devey	E Macky	D White & S Van der Meent
S Dower	J Manning	T & S Wilding
A Edgar	T Marshall	A Williams & J Parfitt
C, R & H Fisher	F McLaren	

OBITUARY

It is with great sadness that I have to advise the death of Tāne's Tree Trust member and one of the country's leading Foresters. Professor Peter McKelvey died in Christchurch on 11 August 2009 at the age of 82.

Peter joined the NZ Forest Service as a trainee in 1945 and graduated with a BSc from Canterbury University in 1949 before heading to Edinburgh University where he completed a BSc (For) degree in 1951. He was posted to the Forest Research Institute in 1951, where he worked mainly on the National Forest Survey, and became Conservator of Forests, Wellington in 1966. While there he was asked to accept the position of Foundation

Professor of a new School of Forestry at the University of Canterbury, being appointed in 1967. He remained there until his retirement in 1985. In 1974 -75 he was President of the NZ Institute of Forestry; became an Honorary Member in 1984, a Fellow in 1988 and was awarded the Kirk Horn Flask for services to forestry, science and the N.Z.I.F in 1998. In 1985 he was awarded the O.B.E for services to forestry and forestry education. In his earlier years he practiced as a forest ecologist and published many papers on the subject. In his retirement he became interested in forest history.

Peter will be greatly missed.

Ian Barton

REGENERATING TOTARA ON THE FARM

Scion has just published a new report by David Bergin entitled "Assessing regenerating totara on the farm: A preliminary guide for landowners in Northland". While it covers work done in Northland by the Northland Totara Working Group and was commissioned by the Northland Regional Council with a grant from the NZ Foundation of Research, Science and Technology's Envirolink programme, the work is quite applicable to regenerating stands of totara in other parts of New Zealand and indeed other naturally regenerating native tree species.

It provides a preliminary method by which landowners, with little or no previous knowledge, can assess the nature of their regenerating totara forest. It is not a comprehensive survey method but rather outlines a technique which enables a rapid preliminary estimate of the area and broad characteristics of the resource which can then be used to identify options for future management. The report covers topics such as:

- The characteristics of the species
- Determining the extent of different stand classes of totara
- Assessment of stands including tree diameters, heights and tree form
- Recording and summarising field data
- Consideration of 'management options;' – and providing
- MAF's contact details for those interested in harvesting and milling indigenous timber.

The report is easy to read and well worth a copy for those interested in investigating the management of totara or other native species on their property. Hard copies can be obtained from Tāne's Tree Trust for \$17 (Including postage). Or a pdf copy should soon be available on the Northland Regional Council's website (www@nrc.govt.nz) or that of Envirolink at (www.envirolink.govt.nz).

TIMBER TREES OF THE FUTURE

MATAI *Prumnopitys taxifolia* - by Ian Barton

INTRODUCTION

Probably the slowest growing of the principal softwoods, matai is also harder and more stable than most. In fact it is similar to several hardwoods in some of its characteristics, having the same green wood density as silver beech. It has one pronounced difference to other softwoods in its very distinct juvenile form -the branches being long, flexuous and divaricating with small scattered, copper coloured leaves. The tree is readily identified by the characteristic red colouration below the bark scales when they peel off.

HISTORY

Maori use of matai was for carving and large house construction, especially where totara did not grow or was in short supply (eg the Whanganui area). They

also used the timber for canoes, bailers and agricultural implements. While it contains quite a range of organic chemicals, some of which may be cancer inhibiting, its main medicinal use in earlier times seems to have been its use to check the advance of consumption and as an antiseptic. Older matai are often hollow and water gradually collects in the space which is formed. Early Maori and bushmen used to tap this liquid with an auger and it was drunk as "matai beer". Of all the softwoods matai seems to have been one of the last to be exploited by saw millers, its main decade of production being the 1950's. No doubt this was because the considerable quantity of timber around Lake Taupo became more easily accessible at that time. Even so the cut of matai was still only 16% of that of rimu and miro. The main European



Matai Bark

use of the timber was as flooring, it being claimed that it is one of the world's great flooring timbers. Its other main uses were as joinery, weatherboarding and decking. The small amount still available is much sought after for turnery, furniture and high class flooring.

DISTRIBUTION

The Genus *Prumnopitys* consists of 9 widely distributed species from Costa Rica to Chile, New Caledonia, Queensland and New Zealand. In New Zealand matai is found throughout the country but is most common circum Lake Taupo (where it is often the most common species in the podocarp forest) and in parts of the West Coast. Matai grows up to 800m. altitude in the North Island and 350m (although it occasionally reaches 600 m.) in the south and is generally confined to warmer areas.

TREE SIZE AND GROWTH

It is recorded in *The Flora of New Zealand*, Vol. 1 as growing to a maximum of 25 metres tall and 1.25 metres in diameter. In natural forest it is regarded as one of our slowest growing conifers but growth rate under optimum conditions has not been definitely ascertained. The few records of planted trees indicate height growth of 12 metres after 41 years (mai ca. 29cm) with 18cm of diameter growth over the same time (mai ca. 0.43mm). This should be regarded as fairly fast with average growth rates somewhat lower. Sale & Burstall record the tallest matai on Hongi's Track, Lake Rotoiti at 25.5 metres and the largest diameter at Lake Ianthe at 2.35 metres

TIMBER

Matai looks similar to rimu but has more distinctive growth rings. The heartwood is yellowish when cut, darkening to a red brown colour as it dries. The sapwood is white. Timber characteristics, with *P. radiata* figures shown in brackets for comparison, are:

Density (at 12% M.C.)	610kg/ m ³	(500 kg/m ³)
Moisture content green	88%	(130%)
Tangential shrinkage	3.5%	(4.7%)
- green to 12% m.c.		
Radial shrinkage	1.9%	(2.2%)
Modulus of rupture (air dry)	76 Mpa	(90 Mpa)
Modulus of elasticity (air dry)	8.1 Gpa	(9 Gpa)

POTENTIAL FOR CONTINUOUS COVER FORESTRY

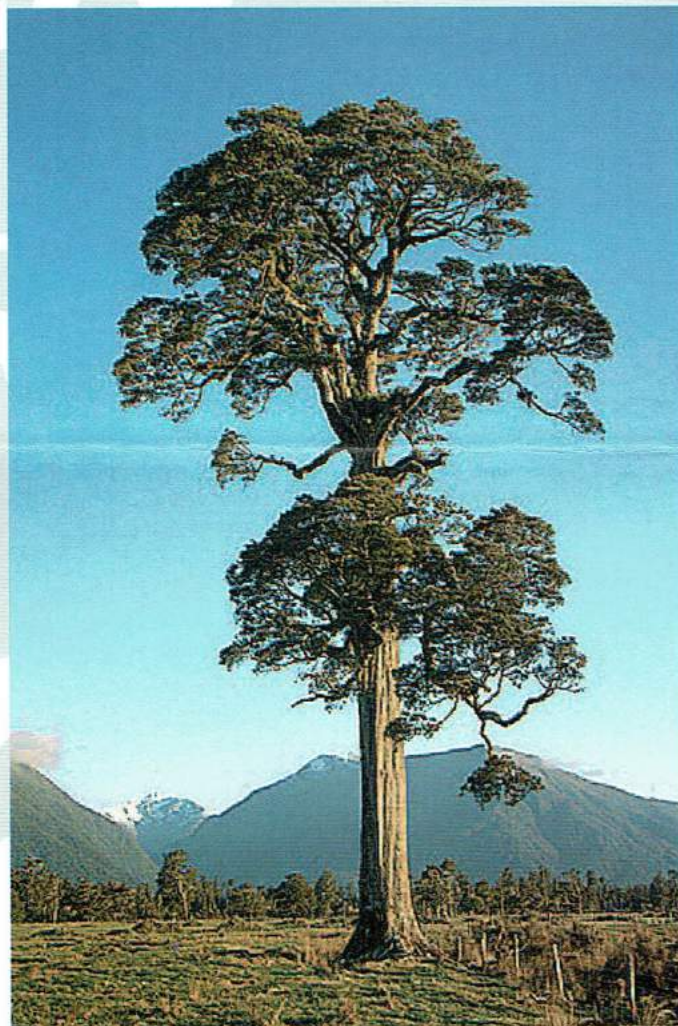
Matai is considered to have considerable potential. However more needs to be known of its growth requirements, and how growth rates may be increased, before this potential can be realized.

RESEARCH REQUIREMENTS

Research into the potential of this species appears to have been the planting of a few small establishment trials. More trials and on a wider scale are needed. It may be that its juvenile form is related to its ability not only to survive at very low light levels but also grow in the open. The first trials should concern themselves with light tolerance (nurse crops) and spacing. Its relative dominance on the new ash soils around Lake Taupo suggests a preference for low fertility, fairly loose soils. Trials on such sites, with the addition of an appropriate nutrition regime could be very fruitful.

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Remnant Matai tree on South Island farm.