# ETS and all That


You will all know that the price of carbon credits has fallen to an all-time low around $2 and there has been a lot of finger pointing. No doubt you will have your own view on whether the scheme is going to work and the recent changes in legislation appear to make it even less workable. Rather than give yet another commentary on the situation I recommend members take a look at the Parliamentary commissioner for the Environment's recent review and statements which are on the web page:

http://www.pce.parliament.nz/

Here are a couple of excerpts to whet your appetite:

*Under the existing Act, the big polluters currently have 90 percent of their emissions subsidised, but this is to be slowly phased out over time. Even so, by 2050 the big polluters would still be responsible for only half their emissions. I have previously made it clear that this phase out is too slow and much too generous to the most carbon intensive polluters.*

*However, the Bill would put the phase out on hold indefinitely, which would in turn effectively lock in the 90 percent allocation subsidy.*

*This makes a farce of our response to climate change.*

* * *

*The Cabinet paper on the Bill states that a driving reason for the amendments is to provide "more flexibility and mitigating short term costs for business whilst ensuring clear long term price signals that encourage a smooth transition to a low carbon economy."*

*However, this Bill signals that there will be little direct cost for emitting carbon dioxide even in the long-term. And without a direct cost, there will be no transition to a low carbon economy, smooth or otherwise. Indeed, major polluters will still be paying for just five percent of their emissions in 2050.*

*Climate change is the biggest environmental issue of our time. This clean, green country needs to take it a lot more seriously.*

Warwick Silvester

## Free database will open access to best tree information

This is a new project initiated and managed by Harriet Palmer who is a member of TTT.

TTT fully recognises the value of this project and encourages those who can to complete the survey below. The project's brief is as follows:

Farmers looking for information about any aspect of planting and managing trees in the working landscape will soon be able to access a new online – and free – database. The database will comprise the most useful and credible information resources available.

Farmers and landowners are being asked to participate in an online survey to ascertain their specific information and training needs related to trees on farms, and also their preferred methods for receiving new information – formally and informally.

To participate in the survey go to:
https://www.surveymonkey.com/s/Trees_on_farms

All surveys completed before 31 December 2012 will go into the draw for $100 petrol vouchers, a copy of *Native Trees of New Zealand and Their Story* by John Wardle, or Rural Women NZ cookbooks *A grand Spread* and *A Good Harvest*.

For more information email Harriet Palmer at harriet.palmer@paradise.net.nz


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As this is the last newsletter for 2012, TTT would like to wish you and your whanau a happy and relaxing holiday season..(and not too much sun…and not too much rain…)




Tāne's Tree Trust
Native trees for the Future
Newsletter
October 2012

Newsletter No. 28 ISSN No 1176-1245


Nga mihi nui ki a koutou katoa.
Greetings to you all.

# Technical Handbook under the spotlight

OCTOBER'S editorial showcases two articles published in the Technical Handbook produced by Tāne's Tree Trust. Both are edited versions of the full. For more information on the Handbook and how to purchase one please contact the office.

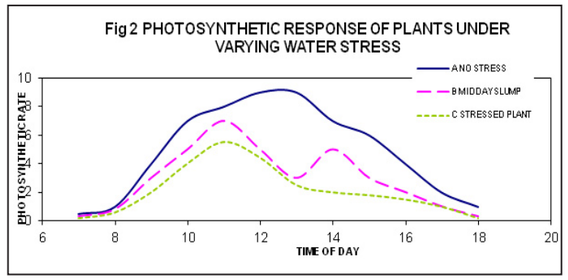
## Physiological factors: trees and environment

Extracts from Technical Article 4.1

### SPAC

The three structural elements (leaves, stems, roots) are interconnected and form what is called the **S**oil – **P**lant – **A**tmosphere – **C**ontinuum. This linkage is critical to understanding almost all of the ways in which plants interact with their environment. For example, there is a physical continuity of water from the soil through the plant to water vapour in the atmosphere. The atmospheric water deficit (drying power) draws water out of leaves and draws water through the plant and thence from the roots and the soil water. This is called the transpiration stream. Understanding the controls on this are fundamental to understanding how plants work. Under dry conditions the flow of water may be restricted, and the plant is put under stress, which may cause it to wilt.

Under heavy water stress the lower line in Figure 2 holds and stomata remain partially closed all day, reducing critical water loss but also reducing photosynthesis. Options B and C above are exacerbated under very dry soil conditions. When the loss of water cannot be contained the leaf loses most of its water and wilts. For many plants, wilting and recovery overnight can occur many times but if a critical amount of water is lost the plant will die. These examples illustrate the close coupling of light, water and photosynthesis in the SPAC.




Warwick Silvester

## Riparian Planting for native Timber and Multiple Purposes

Extracts from Technical Article No. 9.4

The growth, management and, ultimately, the sustainable harvest of native trees for timber can be compatible with riparian zone planting and retirement for conservation and water quality enhancement purposes. Sections of the riparian planting zone that are wide including terraces and slopes often provide sheltered, fertile sites for establishing native timber trees.

Native timber producing species such as totara *(Podocarpus totara)*, rimu *(Dracydium cupressinum)*, tanekaha *(Phyllocladus trichomanoides)*, kauri *(Agathis australis)*, rewarewa *(Knightia excelsa)* and matai *(Prumnopitys taxifolia)* all thrived naturally along riparian margins in pre-human times. Provided there is plenty of lateral shelter to induce good form and faster growth rates there is no reason why these native timber species cannot be included in mixed native tree and shrub plantings for riparian areas.

Kohekohe *(Dysoxylum spectabile)* and puriri *(Vitex lucens)* can also be planted in riparian mixes in frost-free parts of the country.

Selective harvesting of individual trees following the principles of Continuous Cover Forestry (Barton 2008) should be possible with minimal damage to the stream and to the riparian margins. Trees can be felled away from the stream and hauled out of the riparian zone onto the adjacent pastureland.

Single species native timber plantations, without mixed native trees and shrubs to support them, are probably less practical along narrow riparian margins, and will contribute less to aquatic and terrestrial biodiversity values. However where stream deltas, terraces or step faces are fenced into the retired riparian zone providing some depth/width to the zone available for planting, then single species plantings would be appropriate.

Roger MacGibbon

Extracts from the

# CHAIRMAN'S REPORT

April 2011 to March 2012.

## TRUSTEES

The trustees are:-

Ian Barton, Peter Berg, Roger MacGibbon, Helmut Janssen, Mark Dean, Ian Campbell, Andrew McEwen, David Bergin, Robert McGowan, Warwick Silvester, Rob Storey, Andrew Caddie (resigned since 31 March – effective 8 August).

## NETWORK GROUP

The number of members remains at a similar level as the previous year – some 278 people or groups. Subscription rates are $45 annually, with the option to opt for a higher rate as a donation to the Trust

## RULES FOR THE MEMBERS NETWORK GROUP

Because the Trust Deed is not very specific about rules for the network, a set of rules has been proposed and your comments and endorsement will be sought at this AGM. These rules will then become part of the Policies and Procedures Manual of the Trust.

## STRATEGIC PLAN

An important role for Sarah over the next few months will be to review our Strategic Plan and recommend to the Trust changes needed to bring it up to date. At April 2012 the 22 targets to be achieved over the three-year period 2010-2013 were: 36% achieved, 32% were underway, 9% were stalled and 23% had not started

## INFORMATION TRANSFER

A major part of the Trust's work is the dissemination of information to our network members and further afield. This is done in several ways: -

Newsletter: Sarah has been producing the newsletter since May 2011 with contributions from several Trustees and, because she is located there, it is now being printed in Hamilton. A new innovation is to have it sent by email for those who wish to receive it in that format. Only 204 are now printed with 82 being emailed. The newsletter will continue to be published every four months but the publication dates have shifted to February, June and October.

Bulletins and Handbooks: Part One of the handbook "Planting and Managing Native Trees" was completed last year and has had several new sections added over the past 12 months. The Beech Bulletin (Bull 6) has just been published. Both of these are available from Sarah at the Hamilton office.

## SUSTANABLE FARMING FUND (SFF)

The only project currently underway is a small one to establish a thinning trial in kauri planted in the southern Hunua Rages during the 1970s. This has just been completed and a report will shortly be available for those who want a copy. Results are very promising so far with tests revealing that the timber is of similar quality to other planted kauri and strength equal to or better than heart kauri. Two other small projects are to begin shortly; one continuing the work on producing cheaper planting stock and the other involved in further testing of farm regenerated totara timber.

## LAKE TAUPO PROTECTION TRUST

We have now almost completed our third funding grant from the Lake Taupo Protection Trust with further trial plantings and re-measurements complete. A major workshop will be held near Taupo toward the end of this year, when details and costs comparing bare-rooted stock with container grown will be presented

## NORTHERN TOTARA WORKING GROUP (NTWG)

The Trust continues to work with the NTWG which is ably led by Tāne's Tree Trust member Paul Quinlan. The Trust has taken over oversight of this programme from the Landcare Trust. The main effort of the group now is to establish a marketing programme for farm grown totara timber, and we are working on this with the Farm Forestry Association.

## TRUST FUNDING

We are still looking for alternative funding sources, especially since it is becoming increasingly difficult to source funding from the Sustainable Farming Fund. Despite this sufficient funding is coming in to support our activities and we are especially appreciative of the donations coming from members of the Network Group.

These donations continue to be put into the dedicated Research Fund which is now listed separately in our annual accounts. We currently raise almost $3000 a year from your generosity and the support of members for this fund is greatly appreciated. The current total in the account is $15,752.

We promised last year to list projects separately in the Annual Accounts. This has not happened because we were not able to get our new MYOB system set up in time. However, it is now functioning and next year's accounts will be in the new format.

## INDIGENOUS FOREST RESEARCH

The Trust has been working closely with Future Forests Research (CEO Russell Dale) and Scion over the past year on the next major funding bid to the government and we are hopeful of more money coming into indigenous forestry from 2013. We will know more about this later this year or early next year.

Ian Barton - AGM 18 August 2012

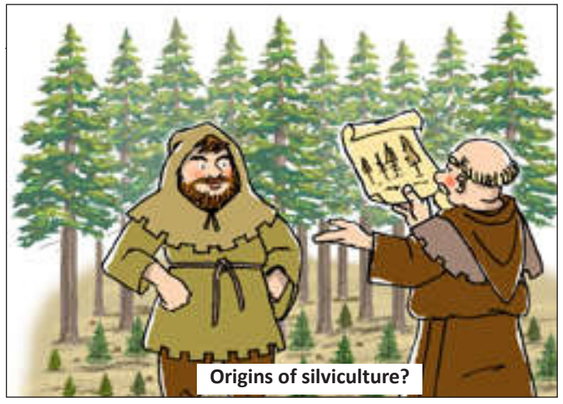
## Trustee Changes

Andrew Caddie retired from the Trust in August this year. His input into the running of the Trust particularly in legal matters has been highly valued.

We wish him well.

TTT welcomes Wiremu Puke as a Trustee.

Wiremu brings to the Trust a wealth of knowledge particularly in traditional uses of the resources of indigenous forests. More information on Wiremu's background will be on our website in the next few weeks.



Origins of silviculture?



## CURRENT PROJECTS UPDATED

# Developing and managing farm grown totara for high value timber

It is more than five years since Dr David Bergin set up extensive silvicultural trials for the Northland Totara Working Group. These trial plots have now been re-measured as part of a Tāne's Tree Trust project, funded by the Sustainable Farming Fund. This involves the re-measurement of 38 permanent sample plots within stands of naturally regenerated totara on Farmland around Northland.

The next phase of the project is to analyze the data and interpret the results in terms of growth-rate and productivity in both managed and unmanaged totara stands.

Meanwhile, general impressions during the fieldwork were that the thinned stands still appear to be growing faster than the controls (un-thinned plots), but that growth rates may already be slowing down since the initial response to thinning. However, we will need to wait and see what the number-crunching reveals!

A portion of the sample plots have been thinned again to further reduce the stocking in order to really test potential growth rates of the residual stems. Periodic re-measurement of the plots in the future will be necessary to provide this information.

**A basal disc from a totara tree that has been thinned to waste. Note the larger outer growth rings which show the growth response to the previous thinning operation done five years ago.**

Many thanks to the supportive landowners involved with this project!

Paul Quinlan

**A permanent sample plot within a thinned stand of naturally regenerated totara.**

## Slashing the Cost:

### Implementing Forestry Methods for Establishing Indigenous Plants

Six North Auckland trials of open grown (bare rooted) versus container grown native trees and shrubs were established over the last five years and this project seeks to establish the performance of these plants. The plants have been re-measured and early indications are that open grown plants perform as well if not better than container grown plants. Re-measurement of further trials in BOP, Waikato and Taupo will occur over the next six months with a view to providing a comprehensive statement on the relative performance of open grow native species across a range of environments. Field data has not yet been analysed.