



EDITORIAL

COED CYMRU: -SOME IDEAS FOR NEW ZEALAND

On a recent trip to the U.K I took the opportunity to visit some Continuous Cover forests and talk to some of the people working in this area. One such visit was to Tregynon in mid Wales where I met the enthusiastic Welsh Forester David Jenkins. He heads Coed Cymru, a Charitable Trust which is a partnership of the Welsh Government and local government units. This was set up in the late 1980's to restore Welsh broadleaf woodlands which had been neglected and plundered for a century, to the extent that they were in serious decline with 85% having no natural regeneration. The vision of Coed Cymru is "Closer integration of Forestry, Farming and Wood use"

Since its establishment four clear roles have emerged for Coed Cymru:

- As a provider of free and impartial help, advice and training;
- To promote co-operation between woodland owners, woodland contractors and timber users.
- To develop hardwood timber products and markets to ensure that broadleaf woodlands have a firm economic base which will ensure their continued management. To be an advocate for broadleaf woodland in Wales.
- To act as a catalyst to bring about environmental, economic and social benefits through sustainable woodland management.

It soon became obvious that the best way to encourage landowners to upgrade their woodlands was to find uses for the usually poor quality saw timber that was being produced from such degraded forests. Thus was developed their forest products laboratory which, despite being tiny, is producing a number of very interesting products. These range from windows through flooring to utilization of sawdust and waste wood as fuel pellets. The laminated hardwood casement windows are made from heat treated timber which is very stable and apparently rot resistant. For example, beech, which is a difficult wood to handle, can be heat treated to 190°C for 8 hours making it harder, more stable and more durable. Wood thus treated is reputed to last for 60 years as a window frame. End-grain flooring consists of square cross-sections cut from small wood as little as 10cm square, thus enabling utilization of very small pieces of round-wood. The remarkable work done by this small forest products laboratory has enabled its staff to convince landowners that there is value in managing their woodlands for productive purposes.

The basic task of Coed Cymru is to restore woodlands and they have done this by encouraging farmers to tend the old stands and plant new ones. They now manage about 600 blocks of semi-natural woodland, mostly 4 ha or less, totalling 25000 ha. About 80% of the managed area is natural woodland and 20% planted. They were one of the first organizations to take up FSC certification and so far have a co-op scheme involving 30 owners. While FSC certification is done at owners' request, being certified gives re-assurance to funding bodies which helps both farmer and Coed Cymru.

Can New Zealand learn from this Welsh experience? I believe that we can for here is an example of landowners, foresters and researchers working together to not only vastly improve the condition of the country's woodlots but also find uses for products from the forest hitherto unusable; and do so at a profit for all. This model has potential for the growers of native trees for it suggests a way in which income might be gained from early thinnings. It also has potential for Farm Forestry generally in highlighting a way that the owners of small forests can work together to their mutual advantage. If you want to learn more about Coed Cymru have a look at their website: - www.coedcymru.org.uk.

Ian Barton

TRUST ACTIVITIES (June to November 2006)

Website:

The website has been running for over a year and has been the means whereby several new members have joined the Trust network. However it could probably be used to a greater extent and Mike Dodd, or any Trustee would be happy to receive suggestions on possible additions or improvements.

Keep checking the site www.tanestrees.org.nz

Renewal of Subscriptions:

Subscription notices for the 2005/06 year were sent out in June with the last newsletter. There are still some members who have not renewed. If you are one of these there will be a reminder slip enclosed with this newsletter. In future, to assist with maintaining the membership records and reduce the workload of the Trust, it would be appreciated if members could pay within 2 months or advise the Trust that you do not wish to continue with membership.

Funding:



Our project "*Opportunities for Native Trees on Farms*" is almost complete and the bulletin will be published early in 2007. It is expected that copies will be posted to members with the May newsletter.

The workshops project is going well and 13 have been held so far with 5 to be completed before 30 June. (See below for details of these) At all workshops we have been successful in getting new members and the questionnaires filled in indicate a high level appreciation by those attending.

The project to create a database of early research work is on schedule with only a few loose ends to be tidied up. This should be available, probably in digital form, in July or August next year.

A Continuous Cover forestry manual is being written and completion of this is now a priority because of the Governments announcement on the Permanent Forest Sinks Initiative, which requires forests to be managed using continuous cover principles. It is expected to be available later next year.

We were unsuccessful in obtaining funding from the Sustainable Farming Fund to produce a bulletin on beech management. However we will be applying again in the coming round and, providing funds can be found elsewhere hope to make a start on the bulletin early in 2007. We are also in negotiation with the Fund about work on setting up a database of indigenous plantings but, because the Indigenous Forestry Unit of MAF is also setting up a database to record the basic details of such plantings we are in discussion with them and the SFF on the best way to implement the project.

Membership:

Membership continues to increase and has now reached 322, of which 25 are corporate members. Existing members are encouraged to tell others about the Trust and encourage them to join. The Trust brochure has been reprinted and copies are available on request to anyone who would like them to distribute.

Trustees:

At the A.G.M Ian Barton, John Kneebone and Roger MacGibbon had completed their terms but were eligible for re-appointment. Ian and Roger were available but John has decided to retire from the Trust. Apart from Ian and Roger one further nomination was received and Ian Campbell has joined the Board. See elsewhere in this newsletter for more information

A.G.M JULY 30 2005

The A.G.M was held at the Hall, Ngongotaha with 22 people in attendance. Following the meeting we held one of our regular workshops followed by a visit to a visit to the Awahou Stream revegetation project led by Jaap van Dorsser.

CHAIRMAN'S REPORT April 2004 to March 2005**TRUSTEES**

The trustees are:-

Ian Barton
Peter Berg
Roger MacGibbon
Bruce Burns
Mark Dean
Murray McAlonan
Toko te Aho

John Kneebone
Maggie Lawton
David Bergin
Robert McGowan
Warwick Silvester
Rob Storey

Non Trustee members of the
Management Committee are: -

Mike Dodd
Greg Steward

NB chairs report lost in computer crash need to retype from a printed copy unless Greg has copy

The unaudited Financial Performance and Balance Sheet for 2005 / 06 are attached to this newsletter.

STOP PRESS**Pohutukawa Bulletin:**

Although this is mainly the effort of Project Crimson, we have put \$10 000 into the project. This money comes from our funds plus grants received from The Forest Owners Assn and Forest Industry Training Boards. This bulletin is twice the size of those previously published and the consequent higher cost means we will not have enough to give each Trust network member a free copy; in addition postage costs will be higher. They will however be available for \$10.00 each, upon request to Ian Barton, until the 28th February, after which they will cost members \$18.00 each.

TIMBER TREES OF THE FUTURE

REWAREWA – *Knightia excelsa* -by Bruce Burns

INTRODUCTION

Rewarewa wood is instantly recognisable because of its pale to dark reddish colour and attractive

flecked appearance, often seen in rulers made of inlaid native timber in tourist shops. It is one of only two species in the Protea family in New Zealand; species of which are common in Australia and South Africa. In spring, rewarewa flowers produce abundant nectar which are irresistible to tui and bellbird and also produce an excellent honey

HISTORY

The nectar of rewarewa used to be collected and eaten by Maori who picked the flowers in late spring and tapped them onto the inside of a gourd vessel. The inner bark was bandaged over a wound to stop bleeding and speed its healing (Crowe 1999). The timber of rewarewa was not used to any extent by the Maori.

Pioneer Europeans saw the decorative properties of rewarewa wood and used it in inlay and marquetry work. However, the timber was also used in bush tramways, brake blocks, and fence battens (Hinds & Reid 1957). Its common name is New Zealand honeysuckle, which refers to the timbers decorative properties. It was, however, also called the 'Bucket of Water' tree as it is useless for firewood.

DISTRIBUTION

Rewarewa occurs throughout the North Island but only in the Marlborough Sounds in the South Island, occurring from the coast to about 850m elevation. It is largely a pioneer species and, in the central North Island, dense rewarewa-kamahia stands are often associated with past burning and clearing. Rewarewa is often associated in natural forest with poor soils

TREE SIZE AND GROWTH

Rewarewa are generally known for their symmetrical conical shape (similar to ricker kauri when young). They can grow up to 30 m tall with a 1 m diameter trunk. There is little data on growth rate. Height growth averages 30 to 39 cm per annum and annual diameter increment is between 0.5 and 0.8 cm.

TIMBER

The dry sapwood is silvery pinkish brown and the heartwood a dark red to purple brown with very prominent medullary rays. The timber is not durable and the sapwood is prone to attack by the insects Anobium and Lyctus. Sapwood is treatable with boron salts. Timber characteristics, with *P. radiata* figures shown in brackets for comparison, are:

Density (at 12% M.C.)	721 kg/m ³	(500 kg/m ³)
Moisture content green	96%	(130%)
Tangential shrinkage – green to 12% m.c.	9.5%	(4.7%)
Radial shrinkage	3.8%	(2.2%)
Modulus of rupture (air dry)	125	(90 Mpa)
Modulus of elasticity (air dry)	18.3	(9 Gpa)

As can be seen from these figures, rewarewa is notorious for tangential shrinkage and is difficult to kiln or air dry. It is classed as very unstable; however it is strong, having twice the elasticity of *P. radiata*. Boards of 25 mm thickness can take up to 9 months to air-dry; however, once dry it is a tough and hard-wearing timber that machines well.

POTENTIAL AND RESEARCH REQUIREMENTS

There has been very little research into rewarewa silviculture. It has the potential to be a fast-growing timber tree which, on the right site, could produce good-quality timber for specialist uses including veneer. Multi-leaders can occur in planted stands.

REFERENCES

Clifton N C 1990. *New Zealand timbers*

- Crowe, A. 1999: Which native tree? Penguin books.
- Hinds, H.V., Reid, J.S. 1957: Forest trees and timbers of New Zealand. New Zealand Forest Service Bulletin No. 12 Government Printer, Wellington.
- Pardy G F, Bergin D O & Kimberley M O 1992. *Survey of Native tree plantations*. FRI Bulletin 175
- Salmon, J.T. 1980: The Native Trees of New Zealand. Reed.

PUBLICATIONS AVAILABLE

*On joining members have the choice of one free publication from those on the list marked *. Others can be purchased at the members rate listed below, sales to non-members usually being \$5.00 more. Some publications, because they have been paid for from grants are free and these are usually sent to members when they become available.*

Back numbers of Newsletters 1, 2, 3, 4, 5, 6, 7, 8 & 9	\$1.00 ea
Proceedings of the launch of Tāne's Tree Trust (first copy free)	\$6.00
Tāne's Tree Trust brochures (free copies to pass to others)	No charge
Totara: Establishment, growth and Management by David Bergin *	\$10.00
Kauri: Ecology, establishment, growth and management by David Bergin and Greg Steward *	\$10.00
Native Trees: Planting and early management for wood production by David Bergin and Luis Gea. *	\$15.00
Pohutukawa: Ecology, establishment, growth and management by David Bergin and Gordon Hosking. *	\$18.00
Indigenous Forestry: Sustainable Management. MoF & NZFFA (212p)	\$25.00
Performance and tree health of a six year old planted kauri stand in the Bay of Plenty by Greg Steward & Ian Barton. Tāne's Tree Trust Bulletin No. 1	\$3.00
Profiting from Biodiversity: Reducing the impediments to planting native Trees. Proceedings of seminars held May 2003 Eds: Ian Barton, Roger MacGibbon, Bruce Burns and Peter Berg.	No charge

Send requests to:-

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TRUSTEE POSITIONS CHANGE



At the recent AGM of the Trust John announced he would not offer himself for nomination again and so we have lost one of our original trustees and a valued and steadying influence on the Trust. John has had a wide and varied career in farming, science and conservation and he will be sadly missed by the Trustees and the Trust.

A farmer by profession, John is a past president of Federated Farmers, ex-Chairman of Landcare Research, an ex-member of the Waitangi Tribunal, a member of the Waikato Regional Council Biosecurity Committee and has served on other central government reviews and working parties. John's more recent contribution has been in the area of biodiversity and as chair of the Ministerial Advisory Committee on Biodiversity and Private Land that produced Bio-What he steered a pathway to a much greater appreciation of the role of private land in indigenous biodiversity. John's own words encapsulate his views on this important issue which has been central to the aims of the Trust *"Biodiversity management is a complex business but a hell of a lot boils down to respect: respect for nature, respect for people's property, livelihoods and lifestyles, and respect for the values and views of others. All of us need to remember that we share this world not only with those living around us but our grandkids and their grandkids. Now days, if you fence off your bush, allow a gully to regenerate or plant a few natives you're a local hero."*

We will miss the wise and steadying influence that John has been. We sincerely thank you John for the time he has given to us and wish you well as you take on yet another very large public service of managing the problems of changing land use practices around Lake Taupo as one of six founding trustees of the Lake Taupo Protection Trust which is responsible for managing an \$81 million fund to improve the long term health of the lake.

New Trustee Ian Campbell



Ian's first career was as a fourth generation sheep and beef farmer on "Awarua", sixteen kilometers north of Masterton. Sheep breeding was a strong interest and Ian was an early participant in the National Flock Recording Scheme. In 1977 the Wairarapa Romney Improvement Group based their central flock on Awarua and Ian managed the group's flock for the next five years which led to an interest in using computers on farms. The second career was as a computer software developer and publisher supplying programs to many New Zealand farmers that helped manage their finances and other recording needs. This was done through the company Computer Concepts that is now a leading supplier of software and support to farmers of all types.

An inheritance of native bush and a recognition of the value of trees on farms led to participation in the Montfort Trimble Foundation whose objectives include the production and care of timber in its

widest sense. Ian's philosophy of life is encapsulated in the ancient Greek saying "A society grows great when its old men plant trees in whose shade they shall never sit".

Paul Quinlan and Hew McKellar with some different perspective on why we should consider growing native species outside of their natural range

PLANTING NATIVE TREES OUTSIDE THEIR NATURAL RANGES -

Landscape perspective by Paul Quinlan

In the last Newsletter two differing perspectives on this topic were presented to open and encourage discussion from members on the issue. Consequently, I wish to make a case for *landscape values* to be considered amongst the mix of issues being considered.

I'll start by putting the focus on *landscapes*, rather than trees, as they are more significant and valuable than just the components they comprise, which includes trees, both exotic and native. This is reflected in the prominence that landscape values are given in planning legislation (from the RMA down through to District Plans), or in other ways by tourism, and also by rural coastal property markets.

The relationships native trees have to their wider landscape contexts are similar to their relevance to wider ecological systems. For example, if asked to paint a mental picture of a Pohutukawa tree, most people will also include associated images and understandings of the coastline, perhaps a summer holiday camping at the beach etc. However, more specifically, the associations will be linked to a northern coastline as opposed to say, South Westland. In this respect, whether we consciously realise it or not, we learn to read, assign and associate meaning into landscape elements and to recognise coherent patterns.

"...The significance of the physical landscape, however, is how it is perceived and what it means to people. Landscape is therefore the relationship between natural and human landscape patterns, human experience, and perception of these patterns, and meanings associated with them."

On a basic level this cognitive process helps us to make sense of and orientate ourselves within our immediate environments. At a more sophisticated level it gives us the ability, to perceive very subtle landscape characteristics or even the ultra-fine nuances of fashion. Trees are often a part of our landscape picture. They are often associated with particular places - and places can be associated with particular trees. For example, if I say "Kaingaroa", or "Cambridge", many people will bring particular tree species to mind. A local Far North example would be "Waimate North". For those who know it, images of great puriri stands in paddocks are an inseparable part of its valued and distinctive identity.

Other examples of native plants that many people will associate with particular landscape types and distinct geographic areas (at either local or regional scales), include; tussock grass lands, pingao on coastal sand dunes, southern beech forests and of course, Tane Mahuta.

Now to relate this to our topic; if we assume all can be grown outside of their natural ranges, what possible adverse effects could that have on the landscapes we know, understand and treasure?

Native plants outside of their natural ranges may be perceived as a surprise or perhaps a quirky oddity. Sometimes they will also be a contrast, or -even if sometimes only on at subconscious level- a discord with the wider landscape context. For instance, I find a pohutukawa tree in an inland location always has something missing -the coast! However, a few such discrepancies will have no significant impact on our perceptions, understanding and associations with the coherent wider local

landscape patterns- I'll draw an analogy to a small glitch in a familiar song recording. Often such juxtapositions are even deliberately used by designers to good effect.

But what happens when such elements become expressed in the landscape on much greater scales and are encountered at more frequent intervals? Is it not like repeatedly splicing short segments of different music genres into a familiar song? At some point the coherency and integrity of the song is affected. That analogy is of course an extreme exaggeration for the purposes of making the following point.

That is, I am suggesting that, *meaning* and understanding of our landscapes can be eroded- even from native plants- if an eclectic mix is used that lacks any natural ecological associations with each other and with their local landscape contexts.

But how can I suggest this when mono-cultures of pine trees cover areas from Kaitaia to Southland? And as I previously pointed out new, even exotic elements, can eventually become well accepted and meaningful parts of our landscapes. Should native plantings be subject to tougher restrictions than exotic ones? Certainly New Zealand's huge landscaping industry does not restrict itself to natural ranges.

There are probably no easy, clear or right answers to this. However, I will offer a final thought.

While pines have been attributed with possessing and expressing *natural character* values, even by the Environment Courtⁱⁱ, they are also often maligned. The reasons include the fact that they mask expressions of natural variations (and character) like a blanket of homogeneity. The same tree grows on the ridges, as on the valley floor, and on sand dunes, clay or pumice, from Kaitaia to Southland. This is not the same with native forests compositions. Accordingly, they are attributed with higher natural character values and significance. The natural landscape character values that we assign to native plants are closely associated with their recognised and memorable natural contexts. This includes their natural ranges and existing distribution patterns.

Returning now to the question of whether the Trust should advocate planting native trees outside their natural ranges, I suggest a hard-line position may not be appropriate. However, if the Trust is promoting native trees for multiple uses and benefits, then it is about more than just wood production. I think we should aim high and be advocating for native trees to fulfil their fullest potential from every perspective. Not least then to consider, is their full relevance and meaning to our landscapes.

ⁱ From an Environment Court decision: Gannet Beach Adventures v Hastings District Council [2005] NZRMA 311. para.

ⁱⁱ Harrison v Tasman District Council [1994] NZRMA 193 (PT)

A Farmers perspective by Hew McKellar

The debate on exotic versus indigenous will go on for ever, the only constant is change. In the 1950s I was given some kahikatea trees from Forest Research, Rotorua. We had no idea of their parentage but planted them along the Mangaone West stream, near Feilding. Twenty years later we arranged with the Taupo nursery to get native plants for local community work; we provided the seed, they grew the plants and sent them back. We had some big kahikatea growing in the area but guess where we collected seed, of course from the 20 year old trees since that could be easily picked from the ground. What seedlings we didn't use went all over the country. So much for keeping things local, but if it meant people having learning about and having respect for trees maybe it was worthwhile.

More recently, moving out to the back country, we have planted many different exotic and some native trees to enhance the bush areas. We have discovered a profound alteration to the local climate; where once it was difficult to establish trees out in the open it is now quite easy as the wind pattern is quite different. Yes there is a downside -shearing must be done 3 times in 2 years and carefully timed because there is much less drying time now; we knew this would happen and so

were prepared. The other downside was blackberry, which has moved in -it was too dry for it 20 years ago.

The major change is in bird life which has become much more prolific, after we got the possums down, with tui and bellbird going from native to exotic all the time. Kereru eat apricot and plum foliage, indicating that we have much more diversity now. Rosella have moved in, they appear quite aggressive, what effect they will have is anybodies guess. Many trees are benefiting from the birds eating insects; this would be far less evident if we had stuck to natives. I also know two farmers who have a planted patch of non local natives, is there anything wrong with this?

Our other big problem is weeds getting into protected bush areas; the Regional Council is no help but we hope Q.E.II National Trust can help although it is a big ask to expect all covenantors to keep weeds at bay in protected areas. Sure we try but it is a lot of work, especially as we have pasture to keep weeds out of as well and from the latter we get some financial reward.

The message is, keep planting and plant what you like; or rather what does well with you.

NOTICE OF COMING WORKSHOPS

The following three workshops are scheduled. To save time and postage final notices will not be sent to Trust members in these areas, as has been past practice. For further information keep an eye on your local newspapers etc or email me - ibtreee@wc.net.nz closer to the time.

February 11 th 2006	South Auckland	Venue Wesley College , Paerata
March 20 or 23	Taranaki	Venue Stratford?
April 22 or May 6	Gisborne	Venue