

Highlights from the AustralAsian Meeting in New Zealand

by Morris Lake #7634



The Christchurch meeting from the 14-21 November must go down as a 'best meetings ever'—hosted by Graham and Judith Trost and their son, Parnell—with a little help from the weather and the stupendous natural beauty of New Zealand.

This wonderfully picturesque country comprises 40 million sheep, 4.3 million cows, 26 million ha of land of which 31%, or 8.3 million ha is forest, and 4.3 million people.

We saw the earthquake devastation where 60% of Christchurch's commercial businesses are presently being levelled by demolition crews, and a large percentage of the residences were also seriously damaged—the rebuilding of the city has yet to begin—and they are again suffering after-shocks. Our hearts go out to them.

We were joined by Bob and Ankie Goddard from the UK and a new member, Christian Roschak from Germany, who is completing a PhD in Christchurch.

From the very start Graham set a cracking pace and even though the days were long, we were given every opportunity to see for ourselves the natural and man-made beauties that New Zealand had to offer lovers of wood.

As for the residents of Christchurch, everyone was affected—but their spirits are unbroken, and we were given the best possible service.



Mine hosts, Graham and Judith Trost.

New Zealand Forestry stats

- **31% of New Zealand is forest** (8.3 m ha of the total area of 26 m ha). Of that, 2.15 m ha is beech and 1.6 m ha is rimu/beechn mixture.

- **78% (6.4 m ha) of the forest area is natural forest.** Of this, 5.0 m ha is in Crown Conservation Land, and 90% of the West Coast of the South Island is protected.

- **22% (1.75 m ha) is plantation forest.** Of this, 90% (1.55 m ha) is radiata pine, 10% (0.2 m ha) is Douglas-fir, macrocarpa, cypress, redwood, and some eucalypts.

- **99.95% of New Zealand's timber harvest is from exotic plantation species.**

The first NZ forestry company was formed in 1879. In 1880, there was a consensus that NZ was running short of timber. Large-scale planting consisting of many species and designed to find which would produce the best timber began in the 1890s.

The first NZ Forestry Commission commenced in 1919 with major planting in the 1920s. There was another burst of planting in the 1950s, but planting dropped off in the 1970-80s when the Forestry Commission was corporatised. There was another planting boom in the 1990s, followed by a drop in 2000 due to the drop in the NZ exchange rate from 30 c to 70 c against the \$US.

The overall indigenous harvest is determined by the natural growth rate per year of the indigenous species which is around 1.5 t/ha/year. The overall aim therefore is not to harvest at an overall rate of more than 1.2 t/ha/year. The growth rate for exotic plantations averages 30 m³/ha/year (approx 15 t/ha/year).

In 2011 the total harvest was 26.1 m³ of which 47% was exported in log form, and 7.5 m³ of that was shipped to China. India and Korea are also big buyers. In the plantations, radiata is harvested on a 30-year rotation.

New Zealand has 406 registered sawmills which produced 3.9 m³ of sawn timber last year. Of these the top 10 produced 90% of the sawn timber and the top five between 75 and 80%. This means the remainder are very small concerns.

Last year NZ exported \$4.5 billion worth of timber—10.2% of NZs total exports. The trend is for this to increase until 2020, then decline through to 2035.

Woody Highlights

The very first highlight for most was when Graham, or Parnell, picked us up from the airport and gave us a grand tour of their devastated city—before delivering us to our accommodation. Thanks Graham and Parnell—hosts extraordinaire.

On registration Monday we dodged the scattered showers, and all came together for a hastily arranged evening BBQ—and the greetings and cheerful 'banter' began—and I must say that one of the outstanding features of this meeting was the conviviality of all those attending.

Forestry Nursery

Our first stop was at Derrick Parry's Rangiora Nursery which produced 6 million radiata pine seedlings last year. The 600 km of seed beds produce seedlings from two sources: those derived from



Derrick Parry's Rangiora Nursery.

high gene seeds from selected trees which sell for \$240/1,000, and rooted cuttings taken from selected parent trees which sell for \$420/1,000 plants.

Terry employs 30 people who will take 3 million cuttings and plant them in the three months May-July. The planting rate is 4,000 cuttings/person/day.

Artificial pollination of pines

Our next call was to Paul Schroder, at Pro-seed, who showed us the second component in the production of selected seedlings for the New Zealand forestry industry—high genetic seed production.

This enterprise was previously run by New Zealand Forestry Research, and the land is now owned by the local Maori group but run by Pro-seed.

Plant selections started in the 1950s, when seed was selected from the best performance trees for progeny testing in 10 tree plots. In 1968, 600 clones were selected for performance testing and were spread throughout various areas of NZ. From these plantings, 20-30 clonal lines were grafted and planted over the 160 ha of the Pro-seed site. These trees have been pruned to head height, for ease of seed harvesting and artificial pollination. These trees now produce two styles of seed:

- open pollinated
- controlled pollinated.

For the controlled pollinated group, 300,000 plastic bags are placed over immature cones which are then artificially pollinated using a puffer, and the bag stays on for 2-3 months. The pollen can take 2-3 years to grow down to the seed.

The cones are harvested before they are ripe, and are artificially dried, then run through an extractor and the seed cleaned. The seed can be stored at 4°C for 10 years and still have 95% viability—fascinating.

Riccarton Bush

After lunching at Riccarton Bush in the middle of Christchurch, we stepped back in time because Riccarton is steeped in New Zealand history—back to the 1840s when Christchurch was a vast swampy land occupied by the Maori Whanau group and was called Putaringamotu. By agreement with the Maori people, the area was 'taken up' by John and William Deans. Of the original settlement, 30 acres now remain as a remnant of the natural Podocarpus rainforest and is protected by the Riccarton Bush Act of 1914.

Since settlement, the ground water table has been reduced and it now has to be irrigated in order to maintain it in good health. The Avon River named from a river in Scotland, flows through the forest, which is now fully rodent proof to keep out rats, stokes, cats, weasels, ferrets, and possums. New Zealand kiwi are now reared here and then released into natural bush at Nina Valley.

Five acres of Riccarton Bush was also planted with exotic species around



The oldest pear tree (Pyrus communis) in the world, planted at Riccarton Bush in 1855.

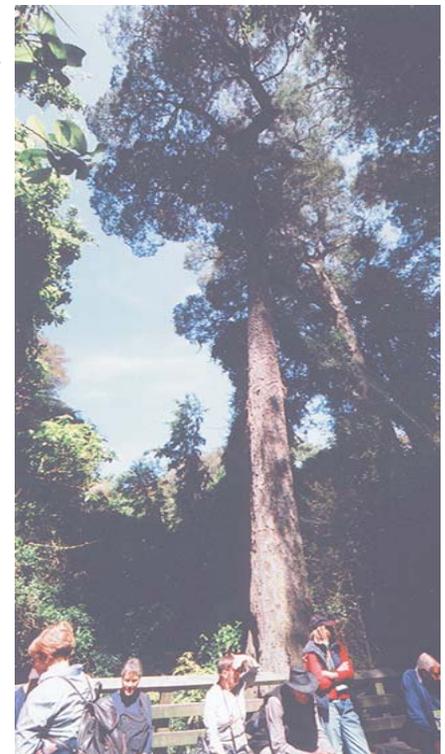
1855 and includes the world's oldest pear tree (*Pyrus communis*) and is an area of tranquility for the city.

The species in Riccarton Bush represent species from the original primary podocarp swamp and semi-swamp forest.

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Paul demonstrating the artificial pollination of a seed cone.



Members gathered around and below a large white pine or kahikatea (Dacrycarpus dacrydioides).