

placing indigenous primary forest. Do those plantation owners who cleared native forest regeneration in the 1960s, 70s and 80s have no obligation to restore? I challenge companies and plantation growers to inform us as to the number of hectares they are actively restoring. Similarly, farmers who have obliterated the native forest from the landscape; as responsible stewards of the land for future generations, what legacy will they pass on?

If plantation owners and managers recognise biodiversity protection as part of sustainable land use, then we believe they cannot shirk their responsibility to restore in future decades a network of protected ecosystems. We must be precautionary by endeavouring to allow nature to have its place again in the landscape, even if it appears now to be of no profitable use, rather than making simple profit-motivated, land-use judgements. Additionally, I endorse Sutton's support of native-tree planting and silviculture, for both biodiversity and production values. Greenpeace is actively encouraging this approach in many countries, in areas outside a protected indigenous ecosystem network.

**Grant Rosoman
Greenpeace**

Kaingaroa sale

Sir,

It is not the first time that I have seen Peter Farley in print expounding his Far Right monetarist/more market philosophy – aimed particularly at taxpayer-funded assets.

Forestry and, of all things, electricity supply and distribution have been his abiding passions.

I can hardly wait for him to move into the field of health reforms.

J. Barber

Calculating rimu growth

Sir,

The paper "Tree ring analysis of rimu: implications for studies of forest dynamics and sustained yield management," by G.H. Stewart and J.C. White, published in your August 1995 issue, was useful in that it quantified the error of using increment cores or whole tree disks for determining diameter growth rates in rimu. The findings of Stewart and White suggest estimates from cores on average overestimate

age by 9.8% and growth by 10.8% and have been highlighted by recent attempts to calibrate tectonic events using dendrochronology. However, there are two issues raised by the study which deserve comment.

Stewart and White found that mean annual diameter growth from the last 50 rings was on average 0.3 mm less than those reported by Franklin (1973) for rimu in Ianthe Forest. Stewart and White correctly suggest this could reflect lower increment for the trees they measured. This is likely because the trees they sampled were not a representative sample of rimu trees in Saltwater Forest. The sample disks provided by Timberlands West Coast Ltd were taken from trees harvested in 1994. The marking guidelines at that time concentrated on salvage of sub-dominant trees in poor health. The growth rates of these trees should be less than average, especially over the past century. Stewart and Whites' data confirm this expectation with diameter growth based on the last 50 rings of 0.53 mm/annum.

In warning of potential adverse consequences of basing sustainable yields on increment cores, this study vindicates the cautious stand taken by Timberlands in calculating sustainable yield for Saltwater Forest. In the "Prescriptions for Sustained Yield Management of Saltwater and Okarito Forest (1992)" the level of harvest was determined by several independent methods (not all based on growth) and the actual yield chosen was the second most conservative. Despite the inherent sampling problems Stewart and Whites' estimates of growth derived from dividing total diameter by 'true' age (around 0.82 – 1.09 mm/annum) are heartening to the

company as they are close to the range of the figures used in the "Prescriptions".

The data used in the "Prescriptions" came from several previous studies of both increment cores and measured diameter growth from tagged trees. Rimu growth was set 1.2 – 1.4 mm/annum for trees over 30 cm DBH and 0.4 – 0.8 mm/annum for trees less than 30 cm DBH. Coynere (1992) from 449 rimu in Saltwater found average growth of 1.55 mm and Stewart and Whites' own data averaged 1.44 mm. Even allowing for a 10% overestimate it is obvious that Timberlands' estimates are conservative.

The company currently has an active programme of calibrating rimu growth and survival rates at all stages of tree development. Nearly all this work is based on numerous old permanent sample plots from the Forest Service era and a growing network of new permanent sample plots. As a matter of interest, a number of sample points now have over 40 years' historical records.

It is unfortunate that an historical photo of ground-based logging was included in the article and that the captions were accidentally reversed. All harvesting today in Saltwater Forest uses aerial extraction methods. Timberlands recognises that the environmental benefits of aerial harvesting far outweigh the additional cost involved and is concerned that the photo used may give the impression that the company is using harvesting methods that contravene its own operational prescriptions and public statements. Readers may be assured that this is not the case.

I.L. James

CONSULTANT RECOGNITION

The following have applied for recognition as general forestry consultants in New Zealand and overseas.

**Kevin Snowdon
Blair Haggitt**

**Rotorua
Palmerston North**

The following has applied for recognition as general forestry consultant in New Zealand only.

Garth Cumberland

Manurewa

The following has applied for recognition as a specialist forestry consultant in New Zealand and overseas.

Ross Macdonald Cassells

Palmerston North

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