

another Plant Pest Risk Analysis Workshop. Hugh was involved as a lead presenter for economic impact assessment at the ASEAN funded workshop. The workshop was attended by heads of quarantine from ASEAN member countries. While in Kuala Lumpur, Hugh also gave seminars at the Faculty of Forestry at the Universito Putra Malaysia, and visited the Forestry Research Institute of Malaysia.

Dr Bigsby and Dr Lucie Ozanne also presented papers on their recent research on product branding by sawmills in New Zealand and on environmental certification of forest products. Conferences attended included a IUFRO forest products marketing working group conference on Vancouver Island and the Forest Products Society Conference in Vancouver.

Win – win outcome from radiation research project

As pine forests replace pasture grasses on New Zealand's formerly indigenous forest soils, the long-term effects on soil quality are becoming of increasing interest outside the scientific community.

Forestry companies have a keen interest in the effects of their operations on pasture as well as on aquatic ecosystems and are no strangers to soil research projects. However, for Carter Holt Harvey, a recently-completed research project has meant validation of some previous research, a keener understanding of soil

fertility under pine, and what Bill Dyck, Carter Holt Harvey Forests General Manager of Information, Environment and Technology, terms a 'win-win' situation.

Postgraduate student Francis Groenendijk wanted to investigate the effects of radiata pine on soil fertility for his Masterate. Through the Graduate Research in Industry Fellowships (GRIF programme) he received scholarship funding for the project, working on the project at Lincoln University and also at Carter Holt Harvey.

Field work was carried out at Mahurangi Forest in Northland. Various indices of soil fertility were compared under radiata pine and adjacent pasture at four selected sites.

"It is important to stress that we were looking at the effects of pine on soil fertility and nutrient status, not what soil would suit trees," Francis said. "We did find that yes, there was a change in fertility, but it was as we expected.

"Afforestation at present in New Zealand is largely on soils which, by pasture standards, are at the lower end of the scale and Mahurangi Forest is an example of forest established on soils of low natural fertility. Under pasture, the fertility of the soil was increased somewhat by fertiliser inputs, but still low by New Zealand standards," he said.

One of the most significant findings was that trees were able to access nutrients from soil organic matter which are largely unavailable to pasture species; demonstrated by the consistent decline in the amounts of soil organic nitrogen and sulphur under radiata pine compared with pasture. In contrast to the pasture sites, the forest soils had a substantial accumulation of organic matter in the form of a needle layer on the soil surface.

Francis's research also showed that, at two 'higher fertility' sites, available phosphorus was markedly higher under trees (35-40 ppm) than pasture (10-15 ppm), while at the two 'lower fertility' sites there was little difference between soil under trees and pasture (5-10 ppm). Overall, results show that effects of trees on soil fertility depend on soil type and nutrient status of the soil prior to afforestation.

Bill Dyck said the company had a philosophy of developing closer ties with universities and graduate students and the GRIF scheme had furthered this, as well as providing a bonus of solid research on a highly-focused project, at a reasonable cost to the company.

Nigel Metge, of the Foundation for

Report on 1997 ANZIF Conference The students' perspective

Editor's Note: The NZIF provided financial assistance for a number of students to attend the ANZIF Conference in Canberra earlier this year.

At the conclusion of the ANZIF conference in Canberra it was agreed that student members of the NZIF did not have an adequate medium through which to interact with people involved in the forestry industry. It is hoped that this column will serve at least part of this purpose and will perhaps open a clearer line of communication between students at the School of Forestry and those already involved in the forestry industry.

Attending the ANZIF conference in Canberra was a unique opportunity to meet with forestry students from across the Tasman. However, perhaps of more importance was the opportunity to mix with people whose experience in the forestry industry far outweighed our own. In this respect the conference was excellent and I'm sure those of us present appreciated the time and experiences that were shared with us.

The ANU were generous enough to provide our accommodation. Our Australian counterparts were excellent hosts who seemed intent on giving us as little rest as possible, by ensuring that we got the full tour of the Canberra night-scene. It was interesting to compare the different attitude towards our respective futures in the forestry industry. It was obvious that our education, which gears us towards a more management/commercial-oriented future, differed somewhat from their more traditional approach. The differences in attitude to which Chris Perley alluded in the last issue seem to filter back into their educational ideals and general approach to the future of forest-related industries.

We delivered our presentation on the second day of the conference. The talk detailed a brief history of New Zealand forest management before discussing our views on the future of indigenous forest management in this country. The actual presentation, delivered by myself and Julia Sinnock, ran pretty much according to plan after an initial problem with the slide projector which proved a good test for the group's nervous composure. Special mention must be made of Peter Crowe's prowess controlling the slide projection and the general all-round commitment shown by the entire travelling team. On behalf of the group of us that were lucky enough to travel to Canberra I would also like to express our thanks to Kevin Boston, a lecturer here at the School of Forestry, who spent countless hours with us in preparation and put up with our varying degrees of stupidity while on tour.

Regular Feature?

It is hoped that this column will now feature regularly in New Zealand Forestry. We are at this stage trying to keep communication lines open with the students at ANU, and hope to be able to include correspondence from them in this column also. Any feedback or questions relating to student activities within the School can be directed to myself, either via the School, or by Email tjm70@student.canterbury.ac.nz. Any correspondence would be greatly appreciated.

Tim Myers
School of Forestry
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Research, Science and Technology's GRIF programme, said the project took into account a number of factors such as environmental and RMA considerations as well as the more rigid commercial aspects supported by pure research. He said the aim of the programme was to encourage industry to undertake research which would extend the company's capabilities. In turn, postgraduate students would be exposed to the realities of the commercial environment. Approximately \$2.5 million is awarded by FRST each year for postgraduate Research in Industry Fellowships.

LETTERS

An urgent need for reappraisal of forest prescriptions

Sir,

It is 40 years ago when discussions were centred on the problems of spiral grain and low-density wood. They were strong points against using *P. radiata* as a building timber.

These arguments died when the trees being milled increased in age and a great proportion of the cut was directed into crates, boxes etc. Where New Zealand *P. radiata* has earned its great reputation is in the high-quality market with timber cut from trees over 30 years of age. It is good to see such people as Charlie Kerr and Wayne Coffey (N.Z. Forest Industries, April 1997) expressing concern that these problems are arising again.

Recent trends towards short rotations for *P. radiata*, led by economists and other enthusiasts, give the same value to all clear wood, irrespective of age. It is in the young clear wood where the problem is showing up. If the value of young wood was lowered then the "short rotations" would lose their attraction. If we continue to sell this wood as high-quality then our reputation will suffer, prices will drop and the overall value of all forests will fall drastically. Today's forest economists persist in viewing a forest on a one-crop basis and not as a continuum. It may be all right for small forests but large forests should be looked at as sustained units.

The 1981 New Zealand Forestry Conference report states: "If the production of high-quality saw logs and the maximum volume of clear wood is the essential ingredient of our industry strategy, stands should not be felled early. If it is considered necessary to spread individual development, felling can be delayed with

subsequent gains in volume and particularly and more importantly, gains in value."

New Zealand missed a golden opportunity to hold rotations at 35 years when the major utilisation plans for the 1925-30 plantings got under way and when large areas were still uncommitted. Attempts to establish sustained management were thwarted by pressure for increased utilisation. Some owners made strenuous efforts to balance this by major new planting in the 1970s and 1980s. However, the temptation to cash up the standing growing stock was too great and the accounting systems such that the reduction in the value of the standing forest was not reflected in the balance sheets. This situation was too tempting and successive managements were only too eager to jump on the bandwagon and to use the "short rotation philosophies" as justification.

Forest managers fight a losing battle when it comes to holding up rotation age. Everything is against them. If markets are good the financial managers want to sell more to take advantage of the opportunity and if the market is bad they want to sell more to keep up the cash flow. It is not easy for forest managers to convince financial managers of the need for long-term management objectives, as I found out from trying to do just that for over 30 years.

There needs to be more dirt forestry practised along with the computer modelling. Companies using "discounted cash flow methodologies" for their forest values should bear in mind B.J. Allison's [1992] summation, "some measures lie wholly in the future, such as discount rates, **inaccessible of verification**, subject to the interaction of many competing and cooperating interests and **scarcely determinable even in hindsight.**" [The emphasis with bold type is mine.]

There is an urgent need for a reappraisal of the present forest prescriptions to ensure that we can compete in the quality timber market and not again become the supplier of low-grade timber.

J.E. Henry

Allison, B.J. (1992). In Whyte, A.G.D. (Ed), Proceedings of IUFRO 53.04.01 Meeting. Pp 39-44.

Biodiversity issues

Sir,

In Ian Spellerberg's review of the FRI Bulletin, Environmental Effects of Planted Forests (May 1997), he raises a

number of significant points. Unfortunately the obvious biases in the Bulletin are intended to, as Spellerberg points out, "... advocate that afforestation of New Zealand pasture by pine trees was good ..." It is a disappointment that the large amount of useful information in it is tainted by these biases and selectivity. A broad multi-sector review team would have helped prevent this.

However, I would like to pick up on the biodiversity issues that are raised and the Biodiversity chapter itself, which largely misses the point, and is short on guidance for foresters on biodiversity issues for plantations.

The biodiversity chapter gives a detailed account of records and research of indigenous biodiversity in New Zealand plantations. The short section on aquatic life in the chapter was concise and to the point. But the basic apologist summary of the chapter was that pine trees have a greater incidence of indigenous biodiversity than pasture, and therefore plantations are OK. To me this is not a particularly glowing report card for plantations when the central theme here is biodiversity protection as a component of sustainable land use.

The Convention on Biological Diversity (CBD) is the primary international instrument that deals with biodiversity, with New Zealand a signatory, yet it doesn't get a mention in the bulletin. The CBD lays out binding commitments for the protection, conservation and sustainable use of biodiversity. The author, Piers Maclaren, also confusedly claims the Principles for Commercial Plantation Forest Management as being an international convention (p.128).

A big deal is made of incidental indigenous plants and animals in plantations, but no information is given on the level of this biodiversity after harvest. Emphasising the number of individuals or species found in plantations rather than what type of species, and on comparable sites, is misleading. The photos at the beginning of the chapter (higher altitude native beech forest to illustrate low natural biodiversity and pine on what looks like a lowland site to illustrate potential biodiversity), sets the biased foundation of the chapter. Most plantations are planted on former biodiverse lowland forest ecosystems. The photos and such comparisons are irrelevant unless they are on comparable sites, as an objective scientist should know.

Maclaren implies that more numbers and species is better. However, protecting biodiversity is not about maximising numbers. It is about protecting and restoring the indigenous gene pool, the variety and abundance of species, and the ecosystems which they are part of. Thus protecting the