



# National Diploma in Forestry : First graduates receive their qualifications

Fourteen students who had completed a National Diploma in Forestry (Forest Management) received their qualifications recently at a ceremony at Waiariki Polytechnic, Rotorua.

This ceremony heralds a new era in forestry education in New Zealand. The National Diploma in Forestry was developed by the forest industry, through committees administered by the Forest Industries Training and Education Council.

"The Faculty of Forestry of Waiariki Polytechnic had to pioneer this qualification. Not only was much of the content different from the old New Zealand Certificate in forestry, but the whole qualification is competency based. All the teaching material had to be developed, and lecturers and students had to come to grips with the assessment of competencies against the performance criteria specified in unit standards which are registered with the New Zealand Qualifications Authority," said Gifford McFadden, Chairperson of Waiariki Polytechnic's Council.

The students took three years to complete the diploma, which includes practical forestry skill such as pruning, planting and harvesting, as well as the forestry sciences. They studied legislation which has an impact on forestry, environmental issues, harvest planning, forest valuation, and a range of forest business management units, such as preparing tenders for forestry operations, and developing safety management plans.

Rod McGowan, Chief Executive of the Forest Industries Training and Education Council, said the new Diploma had resulted from a close cooperation between FITEC, as the forest industry's training organisation, and Waiariki Polytechnic, as a traditional provider of technical qualifications to the forest industry. "It is pleasing to see that forestry has become the first major export-oriented industry to have graduates holding a National Diploma, which has been designed to fit the training needs of the industry," he said.

As had been intended by the industry when it developed this diploma, the training has delivered highly employable, job-ready graduates. Since completing the diploma, 13 diploma graduates have found positions in the forestry sector, while one is continuing his studies. "There



**Lindsay Vaughan presents the NZFS Sports Award to Glyn Eason, a third-year student, at the graduation ceremony of the National Diploma in Forestry which was held at Waiariki Polytechnic's Tangatarua Marae.**

are very few qualifications which have this employment success," said Margriet Theron, Dean of Forestry at Waiariki Polytechnic.

The outstanding performance of the students has been recognised by the forest industry and others. The prize for the top student went to Tina Cummins, who is working with Liro Ltd as a researcher on safety in logging. She also received the OSH award for the best forest safety management plan.

Peter Robinson received a study grant

from Liro Ltd as the best second-year harvesting student, while Stephen Neate got the award from the New Zealand Forest Research Institute for the best research project. The Forest Contractors Association recognised Nicholas Whisker for his achievement in forest business management, while Fletcher Challenge Forests awarded a prize to Geraldine Fitzgerald for excellence. The Forest Service Sports award, open to all forestry students in New Zealand, went to Glyn Eason for his achievements in swimming.

## Lincoln University News

The Lincoln University agroforestry experiment with radiata pine and six different understoreys is now seven years old and was given its final thinning (down to 200 stems/ha) earlier this year. Dr Don Mead reports that the trees are now up to 10 m tall and have been pruned to between 4 and 5 m. The trial is now showing that in this summer-dry climate probably the best understorey pasture is cocksfoot/clover, as that pasture is producing well and provides sufficient com-

petition to control tree form and branching without drastic effects on growth rates. Several graduate students are currently finishing their research and a series of papers are due out soon. Dick Lucas, on behalf of the agroforestry team, recently presented pasture and animal growth data to the International Grasslands Conference in Canada. Visitors to the experiment are very welcome.

Dr Hugh Bigsby visited Kuala Lumpur, Malaysia in June to participate in

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 Universiti 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](mailto:tjm70@student.canterbury.ac.nz). Any correspondence would be greatly appreciated.

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