

What does the profession expect from a forestry graduate?

At the 2003 ANZIF Conference, Professor Roger Sands delivered the MR Jacobs Oration and spoke on "Professional forestry education in Australasia – looking from the past to the future" (August 2003 Journal). He concluded by saying:

"In my opinion university-based schools of forestry should promote learning rather than teaching, education rather than training, knowledge rather than information, questioning rather than accepting, participation rather than observation and the long-term interests of students rather than the short-term interests of employers. Forestry graduates have often done well in other areas of employment because of the management focus in their forestry degree. Long may this continue. Forestry programmes can be provided by a range of organisational structures. The key is that they meet professional criteria established by the Institute. The Institute has a responsibility here."

The NZIF Council has accepted this responsibility and, as the first stage of an accreditation process, will seek to answer the questions "What is the profession's expectation of a university forestry graduate? What are the core competencies and curriculum required?"

Prof. Sands makes the point that the role of a university is to educate graduates rather than being a training organisation for industry. Nevertheless, as part of meeting the needs of students, we keep a close watch on where graduates are gaining employment and the competencies that they require in their positions. In 2003 I did a survey on where School of Forestry graduates from 2001 and 2002 had gained initial employment. The results are summarised in Table 1.

Some 37 out of the 50 graduates were employed in forestry (31 in New Zealand and one in each of Australia, Fiji, Tonga, Singapore, Canada and the UK). Seven

Table 1: Field in which 2001 and 2002 School of Forestry graduates gained initial employment.

Field	No.
Forest management	7
Forest planning/Business analysis	8
Forest inventory	2
Environmental management	2
Harvest planning/Production scheduling	4
Harvest operations	4
Logistics	3
Truck dispatch	2
Wood processing	2
Marketing	3
Postgraduate study	7
Non-forestry job	2
OE	4
Total	50

continued with postgraduate study (three did MForSc degrees at Canterbury, one did an MForSc jointly between Canterbury and Sweden, while others did Masters degrees: in Engineering Management at Canterbury, in Environmental Management at Lincoln, and in Forestry at Virginia Tech). The two doing non-forestry jobs were working for the police and working for a company using GIS to map cellphone coverage.

I have kept track of 2003, 2004 and 2005 graduates on an informal basis. They have gone to positions in the fields listed in Table 1. In addition they have gone into:

- Indigenous forest management.
- Biosecurity compliance.
- Fire research.

The point is that graduates from the School go to a wide range of positions. The range is getting wider as is the geographic spread. One recent trend has been for an increasing number of graduates to gain employment in Australia, a reflection of the opportunities that currently exist there in plantations. For example, five School of Forestry 2005 graduates work in Australia.

So what are the competencies expected of a forestry graduate. Peter Hay attempted to define these when he was a Visiting Industry Fellow to the School in 2004 in the context of the question "What does industry expect of forestry graduates?" In the August 2004 Journal he "listed the usual employer expectations such as report writing skills, numeric and computing skills, basic chemistry, biology, soils and ecology knowledge, GIS skills, silviculture and harvesting knowledge, basic forest engineering and business management knowledge, good interpersonal communication skills, the ability to work as part of a team, to be a quick learner and to be able to resolve solutions from first principles etc.

"In preparing this list, I became very aware of the vagueness surrounding the depth of the minimum basket of knowledge and skills a forestry graduate should possess. It is important to get clarity on this issue especially as the Institute of Forestry makes progress toward establishing an accreditation scheme for professional forestry programmes."

The move by the NZIF Council to address the question "What does the profession expect from a forestry graduate?" is a positive step both for providers of forestry education and for the Institute. Education providers, such as the School of Forestry, regularly review their programmes. Some of the challenges are deciding what to include in a degree programme and what to leave out; what to make compulsory for all students and what to make optional.

The Institute is catholic in terms of its membership. Although, in a literal sense, the question relates to a subset of members, in seeking to answer it the NZIF stands to generate some useful debate on the expectations of a forestry professional. It should certainly help further the Institute's goal of maintaining and improving professional standards.