
Brain drain in forest research

A year ago an overseas scientist visiting New Zealand for a second time said to me: "FRI *used to be* one of the best forest research institutes in the world". As a New Zealander by choice and one who was attracted to this country by the international reputation of FRI, I was taken aback by his observation. More recently, as I have witnessed the increasing loss of scientists from FRI, I have been forced to reflect on that comment more deeply.

First a few facts. Of the staff with doctoral degrees listed in the 1988 annual report 15 per cent have since resigned. No less than 25 per cent of the research field leaders have gone. Others are known to have been looking for jobs elsewhere. Of the scientific papers in reviewed journals listed in the 1991 annual report about 10 per cent had senior authors who have resigned or had retired up to four years earlier.

Since at least the Middle Ages there have been some workers whose skills have been in international demand. In those early days it was cathedral builders, today scientists. New Zealand was an importer of scientists for many years. By recruiting overseas, skills could be purchased cheaply as education and experience had been paid for by others. With a reputation of high standing FRI could attract scientists of international calibre both to its permanent staff and as visitors for extended periods.

The tide of movement now seems to be reversed. Scientists have left to take up positions in Europe, North America and, perhaps more importantly, in Chile and Australia – direct competitors in the radiata pine business. One can speculate on the reasons behind such moves. Obviously the benefits of moving are seen to be greater than those associated with staying. In a society where restructuring and change have become a way of life the relative 'costs' of a change of employer are less apparent. The grass on the other side of the fence takes on a greener hue.

The uncertainty of research projects influenced by political whim cannot be overlooked. For instance, changes in tax resulted in reduced forest planting which impacted on forest nursery research. Consequently, specialist staff have been lost. New changes in tax laws have resulted in increased demands for nursery stock but research back-up is not easily replaced.

Some scientists have moved into self employment. A scientist of my acquaintance (*not* in forestry) reports that his earning power has increased dramatically and his potential workload is more than he can

handle since leaving a government research institute. This suggests that top-quality scientists in government service might not be obtaining the financial and other benefits they deserve. A corollary is that his work is no longer available to society at large.

Unfortunately the reversal in movement of scientists has coincided with the retirement of the last of those scientists who made FRI's international reputation in the 50s and 60s. Unlike universities, government research institutes in New Zealand have failed to retain the expertise of such staff through emeritus status. While not so spectacular as staff resigning and moving overseas, retiring staff also represent a significant brain drain in an institution.

A more subtle form of brain drain is also occurring. The 1991 FRI annual report notes that contract reports outnumbered publications by 50 per cent. Less than 30 per cent of publications were in refereed scientific journals. The reputation of a research institute rests firmly on publications in refereed journals. Proceedings of meetings and bulletins receive less

notice and are often difficult to obtain in distant libraries. Contract reports are often confidential. I suspect that the relative merits of contract and public research and the conflicts of interest they engender have yet to be fully explored.

It may be argued that numbers are not everything. Indeed FRI's reputation was made 40 years ago. At that time a small group of scientists working in relatively primitive conditions published journal papers which attracted world-wide attention while at the same time helping to provide the basis for one of New Zealand's major economic enterprises. In retrospect their achievements were remarkable. I suspect that per capita they made considerably more impact than those of us who have followed them. However, the loss of scientists such as Oscar Garcia, described by his major professor as the best mathematician he had ever had as a student, must be lamented. When a quarter of the research field leaders resign within four years it is time to ask some penetrating questions.

H.A.I. Madgwick

An industry coming of age

On occasions, it can be a little difficult to write about developments in an industry because not much is happening. That is certainly not the case in the New Zealand forest industry today. In fact, the reverse is probably true – it is becoming quite difficult to keep up with all the new announcements.

A renewed surge in the long-term confidence in forestry has resulted in new land planting exceeding 40,000 hectares in 1992 compared with less than 14,000 hectares in 1991. Next year, new land planting will be a record for a single year with up to 60,000 hectares established. The personal enthusiasm of the present Minister of Forests for the expansion of our plantation forests can be attributed to the majority of this new investment.

The second half of 1992 will probably be remembered as the period when New Zealand radiata solid wood products "came of age" in the international market place. More than 20 years of research, communication, international promotion and market development appears to be reaping the first really sustainable benefits in new international markets (helped

along a little by the rapid disappearance of the traditional wood baskets of the Pacific Rim).

The announcement of a series of major new processing facilities in the sector in 1991/93 in MDF, plywood, dimension, laminated and laminated veneer lumber, mouldings, millwork and furniture production is exciting and invigorating news. This rapid expansion and diversification of the processing sector should finally put paid to any lingering doubts as to the wisdom of the Government's decision in 1988 to exit the direct involvement in managing commercial forestry ventures in New Zealand. The timing of the decision was just right.

The New Zealand industry has been transformed in two years, with previously unfamiliar names such as International Paper, Fibreform, Tachikawa, Juken Nisho, Wenita, ITT Rayonier, Ernslaw and other companies now shaping the future of forestry in this country as well as (and often instead of) the familiar local companies of the past.

Importantly, representing these companies are a solid core of skilful and