

# Forest management impacts and the need for basic research

The maintenance of long-term site productivity is one of the key tenets of forest managers. The special feature of this issue highlights some of the problems involved in practical implementation of this ideal.

The paper by Bill Dyck and Peter Beets reviews the impacts of various types of harvesting and site preparation on the N status of two contrasting sites. I have picked this theme up in a short note looking at a specific operation at Eyrewell Forest – the full tree harvesting of thinnings. Herb Madgwick and Bruce Webber have extended their earlier work on the biomass and nutrient con-

tents of mature radiata pine to give a method of estimating nutrient removals under a range of harvesting intensities. These three papers thus complement one another.

Andy Pearce and Pat Hodgkiss give an example of a different type of impact. Their paper emphasizes the need for care in constructing logging landings.

The papers also illustrate another important point. They are all good examples of how basic, often long-term research, can be of direct value to managers. The impact of thinning removals in Eyrewell forest has been derived from basic studies initiated to give a better

understanding of radiata pine nutrition and the changes that occur with thinning and fertilizer use. Similarly the other two nutrient related papers rely heavily on basic research and the paper on erosion from a landing failure occurred in a catchment trial at Tairua forest. In times when the pressure is for applied, short-term research it is well to remember that the more basic research may often hold the key to management questions, even though this may not have been obvious at the time the research was started.

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Editor

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## Cultural revolution in Canterbury?

On May 7, 1966, Mao Dzedung launched China's Great Cultural Revolution with an infamous attack on Universities. It led to the wholesale despatch of forestry schools to the remoter provinces with the exhortation to students (and teachers) to "Learn from the rich-experienced peasants!" It introduced a decade of disaster and the loss of an entire generation. To the returning visitor to China, there can be no greater shock than the naivete and stove-pipe vision of cadres and administrators, supposedly educated during that period and now in positions of responsibility and power.

The Probine Report on "Education and Training in the Forestry Industry" appears to be advocating a similar experience in New Zealand. Admittedly, the Report is concerned overwhelmingly with training (the word "Education" features only in its title), and it eschews recommendations on questions affecting universities: nonetheless, it fills more space with university matters than with certificate and industry training combined. It is not my purpose to comment on the latter but I am old enough to be concerned about the parochialism of the former.

The Probine Committee evidently sees no educational role – or responsibility – for New Zealand outside New

Zealand. Yet, at meetings of the Asia-Pacific Forestry Commission, we frequently assert our involvement with the regional community and our preparedness to share experience and expertise (at any rate with non-competitors). We comprise a fraction of one per cent of the regional population but the Canterbury School of Forestry is one of only five university schools in the region teaching forestry in an international language; to suggest that it might be relocated so as to better serve the vocational needs of the central North Island is myopic. "What can they know of England who only England know?"

The Report discusses research but only in the context of access to teaching assistance from the FRI (the former F. & R.E.S. – now the Forest Research Centre – does not appear to enter into consideration). But without engaging in research, how can university teachers command credibility? Forestry students need exposure to good research (whether basic or applied does not matter, but quality does) and New Zealand, I suggest, may well come to need the objectivity and imagination that should characterize university research. An article by John Jeffers (who recently retired from the UK Institute of Terrestrial Ecology) laments the "alarming

decline of British science" which he sees as a consequence of the customer-contractor principle – by which science was "to be bought and sold like cans of baked beans or packs of pantyhose". The concept failed to anticipate the spawning of bureaucracy within the organizations of customers and contractors which oversee the buying and the selling; the result has been, he avers, less (as well as less interesting) research and much more unproductive administration. If this happens in New Zealand, forestry will stand in need of scientists with the research experience, independence and the humility that comes from exposure to students.

To accept at face value the assertion that a staff of 12 is the minimum to teach a forestry programme of the required breadth is naive (and displays a regrettable ignorance of historical precedent – in New Zealand and overseas). Having taught in three forestry departments (in Scotland, Wales, and Papua New Guinea) and – as member and Chairman of the FAO's Advisory Committee on Forestry Education for some five years – visiting countless others the world over, I would assert with some confidence that forest science can be taught to Honours Degree standard by a staff of half that number. Moreover, there will still be