

and we need them, but we must never forget that if their ancient wisdom had been heeded in the past the money would have gone into more commercially correct activities elsewhere and we probably would not now have a plantation forest resource; or if we did, it would be untended and aimed resolutely at the bottom of the market.

The expansion of interest in forestry syndicates pushes up the area planted outside the corporate fold but adds even less to the evolution of ideas. Forestry as an investment is the nearest thing we have to a cast-iron superannuation scheme, but the members of syndicates want a guarantee of their money in 30 years' time, not a glorious adventure into uncharted seas – which they can get readily enough in the conventional marketplace.

And over the whole thing lies the fact that land barons, whether corporate or individual, have never been popular in New Zealand.

So how do we spread forest ownership? In fact it is probably happening without any need for help as more and more farmers do seem to be realising that trees are a respectable crop, and that if they had planted more, earlier, fewer of them might have gone down the plughole in hard times. The challenge will be to turn them from farm foresters to forest farmers, as they would be, for example, in Scandinavia.

This has been suggested before, by Neil Barr I think, and picked up by some Maori incorporations, but the mechanisms which would have started it on its way for the pakeha farmer are now gone, untested. New ways have to be found, and most of course will begin with radiata pine. Nothing wrong with that, so long as there is exploration of silvicultural opportunities and a share of effort spent on other species. The revolutionary move, from grass back to trees, has been made; from now on it is evolution we need.

There are two professional bodies in the field to assist – the Farm Forestry Association and the Institute of Forestry, but so far they do not seem to have worked well together, regarding each other respectively as hobbyists or electronic modellers intent on knowing more and more about less and less.

Both attitudes have an element of truth in them, but the fact remains that both organisations have qualities that are needed, though not necessarily as now under separate umbrellas. The expansion of farm forestry needs the conventional skills of professional foresters working as consultants, and forest farmers will need that help more in the future when they get into cooperative marketing organisations, as they surely will.

But I doubt very much that these professional skills will be of much help in the move on from radiata. For one thing, consultants service a demand and they should not, by definition, lead, unless, like a horse in a cart, they are merely in front. They operate best when working to very clear terms of reference, to explore exactly what the client specifies he wants done. Left to themselves they will only make money vanish like snow in summer.

The problem is that we are on uncharted ground here. Providing for the needs of future generations is central to the concept of sustainable forestry, yet the needs of future generations are not known, so how do we know what sort of forest to aim at? What numbers can we pop into the spreadsheet?

The conventional economist's answer to that of course would be to head off difficult questions by popping in a high rate of interest, thus aborting the exercise, and then to wander off to other pastures, remembering only that our two original forestry corporates began their lives without the need for any such justification. One began as an investment scam and the other started on the back of a long-term peppercorn stumpage, yet both would be considered a success.

This is the field where farm foresters generally hold the ring, through experience and intuition, and they, helped by the Forest Research Institute, will probably be the ones who mark out the paths away from convention for others to follow.

But in the end the two groups are complementary, and there should be closer contact between them, though I am not sure now of the overwhelming advantage of marriage. I still feel that overall the advantage lies with the Institute, if it cares to take up the opportunity to lead forestry in new directions, but if in the end its members prefer the comforts of number crunching for the corporates, then so be it; the Farm Forestry Association will probably fill the gap, and those professional foresters more attuned by temperament to variety will be there too.

John Purey-Cust

## The bankrupting of science

Sir,

I concur with the observations of H.A.I. Madgwick (NZ Forestry, February '93) and echo his concern at the loss of some of the NZFRI's most able staff. But it is the wider view of changes to science in New Zealand which gives me even greater concern. The loss of staff from

other CRIs and research organisations through resignations and redundancies is, in many instances, even greater than at NZFRI.

The New Zealand science community is a small one with a high degree of interdependency; changes in one group can drastically affect the ability of others to carry out effective research. A good example is the Forest Health Group at NZFRI, which supports a number of entomological research programmes, all to some degree dependent on the fundamental taxonomic research of Landcare's Insect Taxonomy Group. These taxonomists, and the associated National Arthropod Collection, provide the foundation for entomological research in this country. The recent science 'reforms' have seen the group decimated by redundancies and retirements, showing an appalling ignorance by those responsible of the fundamental role of taxonomy in the natural sciences. This lack of appreciation for research that underpins the science that is supposed to drive this country into the 21st Century, could well anchor us in the 20th. Forest entomologists, like most other science groups, draw the solutions for today's problems from the fundamental knowledge and understanding generated by taxonomists, physiologists, ecologists and many others whose work is in turn underpinned by such resources as the National Arthropod Collection. Such collections, databases and fundamental research should be nurtured, added to, and valued as national resources, and in some cases as national treasures.

It is a sad fact that the mindless excesses of egocentric politicians, corporate junkies and flash Harrys of today will be paid for by the scientific community, and ultimately the people of New Zealand, tomorrow. The price will be extracted through poor science, poor decisions, and an inability to grapple with increasingly complex scientific issues which affect the prosperity and quality of life of all New Zealanders.

Gordon Hosking

## *Nothofagus* seed request

Sir,

I have received correspondence from Andrew Jackson, of Kew Gardens, requesting seed of different provenances of New Zealand *Nothofagus* species and any notable hybrids.

If readers are able to aid him with seed collection it would be appreciated if data

could be collected as follows:

- Latitude
- Longitude
- Description of location, e.g. one mile north of . . .
- Altitude
- Habitat, including associated species
- Soil type
- Any particular feature of the plant
- Date of collection
- Collector's number.

Such information would be used to help future researchers.

Seed could be sent directly to: Andrew Jackson, Royal Botanic Gardens, Wakehurst Place, Ardingly, West Sussex RH17 6JN, England; or to myself at 218 Otupua Road, Timaru, and I would be happy to forward it to him.

**Mike Bunckenburg**

## Silvicultural diversity

Sir,

Your editorial in the February issue of the journal makes some interesting if not totally accurate claims about the conservative approach of foresters in the past and compares this with the more dynamic approach now being adopted by some of the new owners of forests previously controlled by the Forest Service.

You are critical of the lack of species diversity in our exotic forests with management restricted predominantly to low final stockings with pruning, and you further claim that foresters in the past have always been subject to a straight jacket of conformity. It appears that this straight jacket was strapped on by some faceless individual or individuals from "higher up" and I presume I fall into this category.

The earliest plantings of exotic production forests were characterised by intensive site definition and an attempt to match species with each site change. Parts of Conical Hill and Dusky Forests are or were good examples of this type of development. The result was a mix of hardwoods and softwoods which created all sorts of problems in management and final harvesting. At the other end of the spectrum were the plantings almost totally dominated by *P. radiata* particularly in the period from 1960 to the present day. The reason for this domination was simple. From the far north to the far south and from sea level to about 600 metres a.s.l. radiata gives the best return to the forest grower and can be utilised for a full range of forest products. Nothing else matches it. I guess there will always be reservations raised by the monoculture bogey but this problem may be more perceived than

real, particularly now that we have a full range of radiata genetic material available.

How plantation forests should be managed has of course been subject to intense scrutiny for years. I think it was generally conceded that to improve timber quality and maximise returns, pruning and thinning were essential when growing radiata. However, within this general prescription there was considerable variation. In fact the variation was so great that FRI was given the job of checking out radiata management region by region within the Forest Service. This was the genesis of the Radiata Task Force which then proceeded to go well beyond its original terms of reference. I recall that there were about 150 different management regimes being used at that time. In addition in some forests where the site index was low or where weeds such as gorse were a problem tending consisted of one thinning and no pruning. What you see as something new, you will probably find has already been tried and rejected or if it makes sense is still being used.

If you intended to be provocative in your editorial then I think you have succeeded but you appear to be basing your comments on personal perceptions rather than solid facts.

**G.M. O'Neill**

### Editor's reply

Mr O'Neill misunderstands the point I was trying to make. Criticism of the old foresters (including Mr O'Neill) or the Forest Service was not my intention, and I apologise to Mr O'Neill for giving him that impression. Nor was I saying that the radiata pine direct sawlog regime was "wrong" and we should all jump on an alternative species bandwagon. I have no doubt that radiata pine, managed in its many and various ways, will continue to dominate plantation forestry for the foreseeable future. An anarchy of impractical silvicultural options, without reason, is no-one's idea of good management. Mr O'Neill's comments in this regard are not in dispute.

The "target", for want of a better word, was our decision-making process. A narrow focus on financial criteria alone, without considering a broad decision-making environment, particularly the market, is a production-driven approach that does not always provide the best solution. Different companies and individuals have different objectives and resources, and no one solution is necessarily correct – there are horses for courses. I gave the example of the farmer with the different needs to highlight that point.

On that note, I would suggest there is no universally "correct" silvicultural regime. A forester can justify any number of options by simply changing the decision-making criteria and adopted strategy. Here I take issue with Mr O'Neill. Radiata pine does not necessarily give the "best return to the forest grower". That depends on how you assess "return". Even on a purely financial basis it is not given; and I have yet to hear conclusive evidence that the discount rate we use to give us that answer is appropriate, nor that we can compare that answer adequately with an, on the face of it, inferior NPV for a longer rotation species such as Douglas fir. As an example of a broader decision-making approach, Tasman have recently stated an intention to review their rotation lengths to ensure log quality matches their customer requirements.

It may be my personal perception, but the increasing diversity in decision-making approaches we are beginning to see as the wood-flows increase, and the ownership base broadens, is good news, and was worth pointing out.

**Editor**

## Forest Accord and mission statement

Sir

Council of the New Zealand Institute of Forestry is currently reviewing the mission statement, and also considering whether the Institute should adhere to the Forest Accord signal in 1991 between the NZ Forest Owners' Association and a majority of the environmental organisations. This Accord is intended to provide a mutually agreed discipline of action for environmentally-friendly treatment of New Zealand's remaining indigenous forests.

Within New Zealand, the goals of sustainability in respect of natural resources were considerably strengthened in 1991 with the adoption of the Resource Management Act. Whilst overseas, in November 1992, New Zealand became a member of the International Tropical Timber Organisation. The ITTO was set up under the United Nations in 1985. Although principally a timber trade organisation, one of its aims is to encourage moves towards the sustainable production of tropical rainforest by the year 2000. Clearly, this aim stands in stark contrast to the present reality of continuing tropical forest destruction.

As a member of the ITTO, New Zealand is now committed none the less to furthering the goal, not only in tropical timber trade and in support for sustainable