

cypresses, a strong injection of Public Good funding will be necessary to maintain an effective research programme, and to provide the necessary data that could persuade investment in timber plantations.

Other Alternative Species Projects

There are a number of other projects that could justifiably lay claim to a slice of the research effort. Among these, the most worthy ones seem to be the development of Corsican and ponderosa pine (*Pinus ponderosa*) forests in the MacKenzie Country, *Acacia melanoxylon* for high-quality timber and veneer in selected localities, management of native beech for timber production in Westland and Southland, and acacia and eucalypt wood chip ventures in Northland.

Research funding

The funding from PGSF for 1993/94 looks to be close to \$2.5 m for projects covering all aspects of alternative species for production forestry (Foundation for Research, Science and Technology, 1993a). This seems generous. Of this, around \$1.5 m would appear to have been allocated to the priority projects that I have highlighted here. The Foundation for Research, Science and Technology (1993b) has nevertheless demonstrated its willingness to fund an increasing amount of strategic research on alternative species, just in case industry may eventually go ahead with large-scale plantings. It has designated research on non-radiata species an area of key competency, and recommended that effort be significantly expanded.

It is emphasised that alternative species forestry in New Zealand can only expand and flourish at the expense of resources that would otherwise be allocated to radiata pine. This is particularly true with regard to competition for the best sites, and to technical and scientific resources to develop the necessary know-how. Without a commitment to develop a strong second front to New Zealand commercial forestry, using alternative species, there will be little incentive and justification, with most of these species, to step up the research programmes beyond the present modest levels necessary to obtain data and to explore and demonstrate options. Full-blown research programmes on selected species, covering aspects such as molecular biology, physiology, silvicultural stand models, and new product development, must necessarily depend on additional effort and resources by the beneficiary industries, driven by their commitment and enthusiasm to invest in planting.

References

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Thinking aloud

The sad news of the passing of Steve Spurr recalled to the mind of this reader his championship of Douglas fir at a time when professional foresters (though not, praise be, the amateurs of the Farm Forestry movement) poured the utmost scorn on any suggestion that there might be a role in New Zealand forestry for other than radiata pine. Many, indeed, had no time for anything but the direct sawlog regime and no distinction was made between "economic" and "financial" rates of return. And I recollect with sad delight an occasion when Fenton was reduced to apoplectic silence by Steve's precise articulation of the economic benefits of Douglas fir. He also used the redwoods of Whaka Forest to illustrate the difference between economic and financial values – though, at the time, the redwoods had only recently become a grove, the majesty of which could be freely contemplated. Previously, it was a failed larch mixture, closed to the public and coming perilously close to clear felling and replanting with radiata. Those of us permitted by grace and favour of the Conservator of Forests to enter the surrounding plantations gazed out over an ocean of sombre greenery, relieved only by the golden glory of poison-thinned larch and cankered poplar.

It was not always thus. Both Maori and European immigrants to New Zealand introduced plants and animals and our claim to have once been the greatest ecological democracy that ever existed was established before the Treaty of Waitangi. The early European immigrants were prodigious planters and environmental improvers. The New Zealand Company's "Handbook for Colonists", published in 1848, urged the introduction of everything from mulberries to mistletoe. ("To a British Colonist, the experiment of planting the symbol of the Ancient Druids in the Britain of the South Seas, should at least seem worth trying.") Ludlam, in the first volume of the Transactions of the New Zealand Institute in 1856, published a list of trees he had planted in Lower Hutt since 1840. He had successfully established 84 conifers (including a juniper from Bermuda), seven palms, 17 species of oak (Lin-

naeus described only 14), more than 50 camellias, and a huge variety of rhododendrons. The horticulturist Mason in 1896 recorded the heights of over 300 species planted in the 1840s at Avalon – adding another 230 to the planted list in 1903 (though not all of these were trees). The earliest photograph I have seen of what later became the FRI nursery (in the classic "Tree Culture In New Zealand" by H.J. Matthews published in 1905 – I think) shows vast seedling beds of *Catalpa*! What, I wonder, became of them?

Bob Burstall's magnificent "Great Trees of New Zealand" notes the measurement and recording of tree growth in the South Island as early as 1866 of 77 varieties of conifer and "numerous examples of trees being saved by vigilance, such as the oak at Runciman for which a motorway was diverted, the Moreton Bay fig which was saved by altering a factory extension, etc." It is indeed strange that by 1985 it was possible to write in all seriousness that "it is doubtful whether future generations of foresters will be able to recognise a fraction of the exotic tree species planted in New Zealand or Australia in the last century, (Richardson, 1985).

This viewpoint promised to be overturned by the theme of the 1993 NZIF Conference – "Managing New Zealand Forests for Future Markets". Since we are confidently expecting an economic future based firmly on tourism, the challenge of the subject was exciting. Clearly, we were about to address manifold problems of indigenous forest management (conventionally, it is the indigenous forests to which the tourists flock) and we have as a nation affirmed a conviction that their role in resort management is to be more important than that in resource management.

A Challenge

It is a challenge because as foresters we know virtually nothing about it. No doubt we shall learn from history. To assist us we have the seminal study of the first-ever designated World Heritage site – Yellowstone Park – (Chase, 1984) which details the almost incredible cata-

logue of blunders, abrogation of professional integrity and subverted science which characterise what is euphemistically described as "management" since the bureaucrats took over from the US Cavalry. And we might confidently expect that the Napier Conference would feature presentations by our own Department of Conservation analysing the issues (if not resolving them) of recreational forest management in the vast areas that are to be devoted to it in New Zealand and which would enable us to avoid the mistakes of our crass American colleagues. Perhaps (after nearly 50 years of possum research) we would be presented with a Wildlife Management Plan or, at the very least, a Mission statement. And, given the rash of publications overseas (recently, in another context, I have noted over 350 references to publications relating to sustainable development and environmental economics) a distillation of unconventional wisdom from our doctrinaire economists would have been appropriate. After all, exotic forest valuations ranging from 1-9 billion dollars which were put before us a few years ago emphasise the even greater scope for imaginative flights of fancy that indigenous forest valuation could provide.

The newly-structured (but still unaccountable) forest bureaucracy afforded the highest priority to a new indigenous forest policy and it was only to be expected that it would dominate the NZIF proceedings. At the same time, new policies and practices for exotic forestry might also command some attention.

Only Opportunity

The management implications of recreational development in exotic forests (private, as well as State-owned) and their role in mitigating the effects of urban halitosis are themes which I have been writing about for 25 years. They provide the only opportunity we have left for distinguishing forestry as a science in its own right, from an undistinguished segment of plantation agriculture.

The peripatetic Director of the Forest Owners Association, travelling the land like some latter-day William Cobbett, tells us that forestry is nothing more nor less than modern agriculture: and the change in name of our Institute was perhaps a quest for protective coloration and anonymity for what was once a real profession. Were we now to see a return to those proud days? And a re-affirmation of a professional ethic of sustainability very different from that of agriculture? A commitment to tourism in New Zealand offers unrivalled opportunities in both indigenous and exotic forestry for extending our



Douglas fir (with Corsican pine beyond), Hanmer Forest, Canterbury. Photo © J.H.G. Johns.

species range, silvicultural systems (how many New Zealand foresters – even graduates – could contribute intelligently to a discussion on *femelschlag* or *quartier bleu*?), all-aged mixtures of beautiful and diverse species in groups, clumps, and of the variety commended in another seminal publication – "New Lives, New Landscapes" by Nan Fairbrother published in 1970.

The prospect was enormously exciting. We could give free rein to imaginative silviculture with a clear conscience: we could seek out land for planting in locations determined by the needs of people rather than economists: we could escape the (sometimes legitimate) charges of vandalism when, in the name of production forestry, we disfigure valley slopes with procustean monocultures and scarring roads. (Nan Fairbrother, in a British context, suggests that there is a need for a country code for farmers – while they can-

not afford to preserve the past at the cost of efficiency, they should "be expected to avoid needless ugliness in a countryside we all have to share": there is an equally pressing need I believe for a similar code for foresters. Having such a code might have prevented the pointless, but damaging, arguments over kanuka on the East Coast.)

To my surprise (shock was nearer to the truth) the Napier programme (apart from a mysterious reference to a "Red Stag Cocktail Hour") offered nothing even remotely bearing on tourism and recreational/environmental forest management. Indeed, it is difficult to imagine from the published titles that there would be any reference to forest management other than for the production of radiata pine. That renowned ecological democracy might as well never have existed.

It is easy for old men to poke gentle fun at the earnest omniscience of youth,