

9. LAND USE ISSUES

The question of whether various land classes are better suited to agriculture or forestry has been debated, often with some heat, for many years.

Following the second World War, large blocks of land were developed by the Crown for settlement by farmers. As the need for increased forestry became apparent, the Forest Service began planting mainly on land rejected by farming interests because it was too steep, remote, or of a poor soil type. The Forest Service also had a policy of regional development and the provision of employment, and so was directed by Government to establish forests in less than desirable situations. Large companies also tended to plant on these poor sites, and considerable effort was put into site preparation by ripping soils with pans or mounding wet soils.

The same thinking was adopted by early farm foresters who were advised to plant their steep faces, often difficult of access, but chosen mainly because they would have little effect on the stock-carrying capacity of the farm.

Farming and Forestry—Early Thoughts at a Hawke's Bay Symposium

The first in-depth symposium on “Forest and Grass” was organised by the Institute of Foresters in Hawke’s Bay, chaired by John Groome, and held in 1960.

D.MacIntyre said that most Hawke’s Bay farms were returning not much over 4% on the capital invested. He said that 10 years previously 1000 ewes had been an economic hill country farm, but it was now 1500–1700 ewes. By putting a percentage of its acreage into trees, a farm could fully employ a man, and with this diversification, be in a better position to weather a recession.

Meyric Williams said that there were three certain future markets for forest produce from Hawke’s Bay—local, Manawatu, and Wellington—and an export trade. He concluded that with 650 farmers in Hawke’s Bay, if 500 of

them planted 100 acres (40 ha) each, then the target area of forest for the region would be reached and those farmers planting would have their properties protected forever from the buffeting of overseas price fluctuations.

A. Bullock, a Tutira farmer, gave detailed costs and returns for both farming and forestry over a 30-year period. Using a typical mixture of wool, lambs, and cattle he came up with farming returns of £467 per acre for the 30-year period (\$2242/ha). For forestry, using 40% *P. radiata*, 50% Douglas-fir, and 10% *Eucalyptus* species he arrived at £411 per acre (\$1973/ha) for 30 years. He assumed establishment and management costs to be the same for each enterprise, bringing the farm return to \$1906 and the forestry return to \$1723/ha for the 30 years.

Mr Bullock stressed the high costs of logging and cartage for forestry, which made a strong case for using land as close as possible to the market.

J. Henry of NZ Forest Products Ltd, and then President of the NZ Institute of Foresters, emphasised the cost of bringing timber over the Taupo-Napier road. He said Hawke's Bay people could not count on Rotorua supplies in the future, and so must grow their own.

J.M. Chambers summed up by saying the forester was held in suspicion by farmers, because of the recent clearing of bush to establish grass.

The Beginning of Agroforestry

Once farmers started to plant woodlots, the next logical step was to graze among the trees to get the best of both worlds. In *FF 13/1* March 1971 there was a description of Neil Barr's first efforts at grazing among a poor pine establishment. When cattle refused to graze the trees off, Neil pruned the crop with a successful outcome, so that now he gave cattle access when his trees (*P. radiata*) were 5 or 6 years old.

Agroforestry has been successfully carried out on a wide range of properties since then, from just letting cattle

FF = the journal *Farm Forestry*, *TG* = *Tree Grower*

have access to large forested areas to improve access and make a little from the lease, to good farm management of stock and trees on high-quality pasture, with the main debate being the number of stems per hectare considered desirable.

Much has been written on the agroforestry theme, both from FRI, following their Tikitere trials measuring tree and grass growth, and from large-scale practitioners such as Mark Farnsworth of Pouto Forest Farms and Sandy Hampton from Robert Holt and Sons, Napier. Many farm foresters have planted areas in agroforestry; Geoff and Gill Brann of Te Puke are leading exponents with a large-scale top-quality operation.

In *FF 17/1* March 1975, Jim Pottinger wrote in an editorial of the need for a balanced approach by farmers. He said there was still prejudice from many farmers owing to the lack of knowledge and appreciation of the value of trees in the widest sense.

Joe Taylor, as Farm Forestry representative on Federated Farmers, kept members informed of the ongoing debate. As foresters moved on to a better class of country for ease of establishment, faster growth, and proximity to markets, farmers became more vocal.



Plantings at the Pottinger farm “Anerley” give shelter, help stabilise the soil, and produce timber as a bonus.

Some Counties Support Farmers

The opposition to forestry became directed by the planners of County Councils, using the Town and Country Planning Regulations as a vehicle for enforcing limitations on what areas could be planted in trees on different land classes.

Marlborough, Wairoa, and Hobson Counties were the leading local authorities in this movement, with the Association urging farm foresters to watch their District Scheme Reviews, and make submissions if necessary.

Ivan Frost wrote in *TG* 1/2 May 1980 of the Wairoa Decision which was perhaps the most controversial. The Council divided the County into three zones—

Rural A = High quality land suitable for intensive farming

Rural B = Substantially pasture

Rural C = Land with erosion problems.

Forestry was made a conditional use in Rural B, and both farming and forestry were conditional uses in Rural C.

Foresters considered this reduced forestry to a means of soil stabilisation. For definitions, farm woodlots of less than 4 ha were regarded as forestry, and were therefore a conditional use.

At considerable cost, the Forest Owner's Association appealed this District Scheme, and were successful, with woodlots being granted predominant use providing they were ancillary to the main use of the land for pastoral farming.

No further restrictions were to be put on harvesting woodlots as it was considered that this was covered by the Soil Conservation and Rivers Control Act 1941, and that no one would plant trees if harvesting was likely to be a conditional land use.

The attitude of farm foresters to this land use debate was varied. Most were basically farmers with concerns that large company farms would march across the landscape, changing infrastructure and the lifestyle of rural areas. There were worries that in this situation forestry workers would come out from nearby towns each day resulting in a loss of rural population and services.

Joll Hosking recalls serving on a Forestry Council Land Use committee with large-scale State and company foresters, and feeling inadequate at expressing a view from the Association. A single view did not exist.

Other members urged, as Meyric Williams above, that if a reasonable proportion of farmers planted woodlots of say 10% of their properties, then ownership of land would remain in family units, and labour demand would increase so at least maintaining rural services. This would also create a large enough resource for the companies to process, or for export. Large contiguous areas in forestry would not be necessary, creating a more pleasant landscape of mixed farming and forestry with land used for its most suitable crop.

Pat Cotter, writing in *TG 9/1* February 1988, showed how the interpretation of the Town and Country Planning Act was varied throughout the country. Half of New Zealand's local authorities had specific control over tree planting (forestry) in their scheme, the other half did not. Submissions to district scheme reviews by planners and landscape architects had the constantly recurring theme that "visual amenity" must be protected, and that all tree planting must be done "with sensitivity". A forest in one scheme was defined as 40 trees or more, while predominant forestry use could be 2 ha or 5% of any one title. Pat Cotter suggested a conditional use application for forestry could include the right of a bus tour operator to object if he felt the view was being impaired by tree planting.

Pat urged all branches to file submissions as they thought fit.

Farmers' Objection Declines

Unfortunately, from the farmers' perspective, the 1980s and early 1990s saw a continual rise in the value of logs, and a continual decline in the returns from meat and wool for farmers.

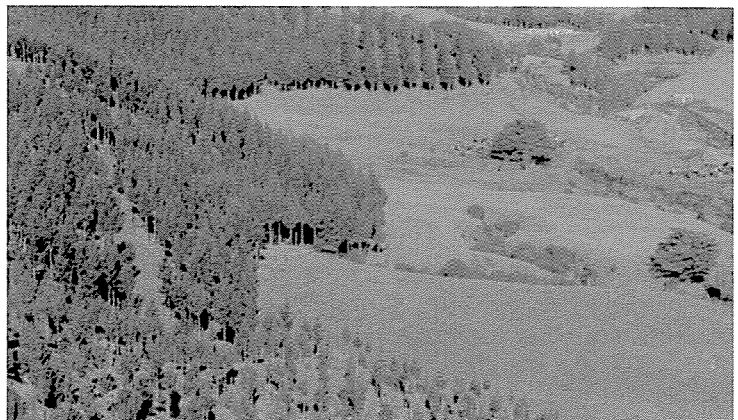
In this situation, a forestry company was likely to be the best or only bidder for a farm if it were put up for sale. In some regions such as Northland and Hawke's Bay, large forests were created either by companies expanding their estates, or by the new phenomenon of investment forestry where a number of comparatively small investors combined under a managing consultant to buy and plant a whole farm.

Many discussions and articles on this new joint venture forestry have appeared, such as the information extracted from a brochure by J.G. Groome and Associates, and published in *TG 3/4* November 1983.

A number of farmers did diversify their farming operations by planting extensive woodlots. A good South Otago example is that of Bill and Barbara Wise who had planted 22% of their property in trees. As well as the basic *P. radiata*, Bill had plantations of Douglas-fir, *Cupressus macrocarpa*, *Thuja plicata*, and a variety of eucalypts. Bruce Treeby, describing Wise's property in *TG 3/4* November 1983, said that the land use change had broadened the economic base of the farm. Overall farm productivity had been raised and employment possibilities doubled. A later report on Bill Wise's property was written by Ian Clarke in *TG 12/1* February 1991, when a third of the property was in trees and, with recent land purchases, considerably more was planned.

Haikai Tane of Twizel, wrote in *TG 6/1* February 1985 "the burning question is ... can pastoral farmers cope with the dynamics of change from grassland to forest farming?" He said that land use issues were more readily accepted by urban people. They were accustomed to dramatic changes as a result of urban dynamics. "Economic facts are hard to dispute", Haikai Tane continued, "when there are successful examples of farm forestry for models. Most Government agencies concerned with land use now actively support farm forestry."

The McIntyre "Wainui" property in Taranaki displays a great mix of good land use. The escarpments are planted in well-managed forest, sheltering and protecting high-yield dairy pastures.



Eoin Garden spoke to the East Asia Pacific Mountain Association Symposium at Lincoln University in May 1993 on the controversial topic of forestry in the high country of the South Island. A debate had gone on for many years on the desirability of forestry in the high country. Wilding spread and good growth of Douglas-fir had shown what the potential was, but tourists and conservationists liked the look of tussock. Rabbits and the weed *Hieracium* spp. made it increasingly difficult for stations to run profitably.

Eoin Garden said that there were hundreds of thousands of hectares of very good loess soils suitable for very good tree growth, and with the present technology a huge viable forest industry could be established. Eoin maintained that for many pastoral properties the scale of forestry need not be large as even 10 ha of mature forest at current prices could be worth in excess of \$1 million if the correct species were planted and good silvicultural practices adopted.

Finally, Eoin talked of funding such afforestation. He discarded any suggestion of subsidy, and recommended either do-it-yourself on a small scale that is affordable, or joint venture agreements with outside investors.

The Resource Management Act

The superseding of the Town and Country Planning Act by the Resource Management Act 1991 brought a change of emphasis from the presumption that the judgment of planners was superior to that of landowners. The RMA espouses the evaluation of effects rather than activities, but is still subject to different interpretation by different Councils.

Future land use is likely to be dictated more by economic factors than ever before. The environmental drive toward sustainable development is also likely to see more forestry on erosion-prone hills, perhaps even more indigenous forestry. If some of these land uses are deemed desirable by the urban dweller or the environmentalist, there may be a growing demand from landowners that some contribution to the cost of such “desirable” land uses comes from the taxpayer.