

THE SMALL GROWER AND THE FOREST INDUSTRY

A MARRIAGE OF LONG-TERM COMMITMENTS AND OBLIGATIONS IS REQUIRED

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The group of forest owners lumped together under the title of "small grower" are growing trees for a diverse number of reasons. Under the Forestry Encouragement Grant and Loan Schemes the Forest Service supported small growers whose main motive was profit but many small woodlots were not established with only this in mind.

The Forest Service helped the small grower to plant 80,207 hectares of forest between 1963 and 1982. It achieved this under two schemes: the 1962 Forestry Encouragement Loan Scheme and its successor - the 1970 Forestry Encouragement Grant Scheme. The average size of areas established under the early loan scheme was 27 hectares; this figure rose to 37 hectares under the Grant scheme. Loans to local authorities over the whole period averaged 385 hectares.

Now this 80,000-odd hectares planted under these schemes represents a sixth of the current total non Forest Service afforested area. I have included a breakdown of this as Table 1 in the annex. From this I think we can see a number of clear trends. Private persons or the small growers currently have five times the number of afforestation projects of companies and joint ventures but the total area is only one seventh of the companies' area. The small grower remains, however, the most important ownership group after companies, ahead of local authorities and informal groups such as partnerships and trusts.

From an analysis of woodlot size (Table 2) it is clear that the great majority (92%) of growers have woodlots smaller than 20 hectares. As I mentioned earlier the average size of woodlots established under the Loans scheme was 27 hectares, rising under the Grant scheme to 37 hectares. I think the Forest Service can definitely be seen as encouraging a larger woodlot size than currently prevails.

Now what sort of regimes were followed in the woodlots planted under the Loans and Grants Schemes? The regimes were, in today's terms, ultra-conservative. Initial planting rates were generally about 2240 stems per hectare with a final stocking rate of about 370 stems per hectare. Most of the initial plantings were carried out with the idea of a production thinning providing an

intermediate return although later regimes generally included thinning-to-waste.

The plantings were generally on agriculturally unproductive land with some plantings being carried out specifically for weed control. Woodlots were often on the back of the farm or in areas with poor access. For example at Whatawhata, the Ministry of Agriculture and Fisheries' research farm near Hamilton, access to their furthest forest area is via 6-7 kilometres of gravelled four-wheel drive track. A similar access problem is faced by John Carter's forest, an example of a small hill country logging enterprise whose problems are typical of those woodlots established under the conservative management regimes of the past.

Reikorangi is 12 kilometres east of Waikanae in the foothills of the Tararuas. John Carter has a forest area there of about 100 hectares. The oldest plantings are 22 years old while the youngest trees are 11 years old. The area generally lies to the northwest and consists of a major ridgetop with a couple of side gullies. Access is by the Reikorangi Road and then by one kilometre of rough farm track.

What problems does John Carter face? Twenty years ago our opinions on stocking rates were quite different from what they are today; now John is finding that the stocking rates were too high. Production thinning is therefore necessary to ensure a good final crop.

Two years ago John employed contractors to do this job. He wanted \$29/tonne and they gave him \$25/tonne. They were using a hauler and an HD6 and taking out only the best timber. They pulled out after only 6 weeks and another contractor was employed for 3 to 4 months. He used a D7 with a winch. This machine, naturally, was too large for effective thinning. Again John found they were extracting only the best trees and leaving the rest. Last year he employed another contractor who was using a Holder 4x4 tractor with a 2-drum winch. This was too small for a reasonable haul: the contract price was \$18/tonne. With this repeated pattern of small returns and inefficient methods John Carter decided to undertake the logging himself.

He is currently production thinning half of his trees over various age groups; ground hauling with a 2-drum hauler equipped with a Fordson motor and using a Ford County tractor for hauling to the loading site. He employs three men; unskilled, subsidised labour who require training and who damage machinery. His chainsaws and haulers are outdated and often need maintenance. He is getting \$28/tonne on the truck and trying to keep expenses below \$18/tonne. The difference covers expenses for tracking which is done by D4 or HD11 on contract. Some areas in steep gullies will be left for clearfelling and thinning to waste may be undertaken on the younger stands. John has also experimented with a portable mill and post peelers but has arrived at owner-extraction as being the most cost-effective management option.

Leith Knowles will tell you about the new crop which has a final

crop stocking of about 200 stems per hectare in a forested area, or about 100 stems per hectare in an agroforestry area. Let me assure you that Leith is talking about the crop of the future. But while I agree with Leith as to what the future crop should be like and the type of country which will be planted, I think we should remember that areas like John Carter's will have to be logged for the next twenty years. For twenty years we will have to contend not with what we would ideally like - a stocking rate of 200 stems per hectare on good easy country - but one of 370 stems per hectare on difficult country. Future management practices will have to take this into account. A light production thinning is a necessity for John Carter's crop: the logging industry will have to allow for this. And even with the computerised crop of the future allowance will have to be made for a farmer who will not want to log on the date that SILMOD predicts but who will wish to wait until such time as finance is needed for a new woolshed, for a mortgage repayment, or perhaps a trip overseas.



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Consideration should also be given to the farmer like Peter Smail at Hororata in Canterbury. His trees are planted for shelter but also have the capability to provide revenue. Peter has about 22 km of one and two-row shelter belts which are made up of a variety of species although Pinus radiata is the dominant one. I might mention here also that the National Shelter Working Party recommended that if shelter was planted where it was needed the resource would equal 300,000 hectares.

Service divisions to justify economically time spent on various activities, advice given to the small grower on the individual level will have to be curtailed in favour of mass communication. We may even have to start charging for some of our services.

The small grower may employ a consultant; another option for him is to seek advice from his local branch of the New Zealand Farm Forestry Association. In this case the advice would be voluntary and dependent on the knowledge of the person approached. Providing the advice is sound, however, the benefits of one landowner encouraging another probably outweighs the efforts which public servant advisors could make in this area.

The small grower could also turn to the New Zealand Forest Owners' Association provided he is allied with other small growers in a regional grouping. As the majority of members are large forest growers, however, membership will probably be of only a little help to the small grower.

LIRA is another possibility for assistance. LIRA has technical knowledge and expertise in field days and extension. The way LIRA is currently funded, however, causes it to work predominantly in the interest of the major companies and the State. I cannot blame LIRA, for someone has to pay and the small grower cannot offer payment at the moment. All he has got now is expenditure and no income.

So who pays for the research, extension and advice? I believe that, as the larger companies are all industrial-aligned companies and as the small grower will have to sell to the industry, that industry must pay. I also believe that the State should pay. They have not only encouraged the planting of these woodlots but will also reap considerable taxation income when they are sold. In addition I believe that the amount of research required, and undertaken, and this also applies to extension of results, should not be aligned to the size of the resource involved but rather, to the size of the problem. And there is a problem. Your attendance here today is a recognition of that. Once you have logged one compartment in Kaingaroa the next area is much the same. This does not happen in woodlot logging. Each area is different with its unique problems and its own owner, who is also unique in his own way.

LIRA by its very title is an industry-wide research organisation. It therefore has an equal responsibility to the small grower, the large grower and to the State, even though it is funded predominantly by the State and the large grower. LIRA must do much more for the small grower than it had done in the past. I would particularly like to see LIRA working in the following areas :

1. Woodlot access and transportation;
2. defining the most suitable equipment for woodlot logging;
and
3. considering the problems peculiar to woodlot logging, e.g.
cleaning up.

The holding of this seminar has been a good first step. The next is for LIRA to commit considerable resources to the small grower by way of research and extension.

REFERENCES

1. New Zealand National Shelter Working Party (1982). Shelter research needs in relation to primary production (summary): An abridged report of a working party prepared for the National Research Advisory Council and the National Water and Soil Conservation Authority - NZ : Crop Research Division, DSIR, Lincoln College, 28p.
2. New Zealand Forest Service. Survey of Future Requirements for Forest Advisory Services (Forest Management Extension). Working Party Report March 1985.

A N N E X

TABLE 1 : NON NEW ZEALAND FOREST SERVICE PLANTINGS : OWNERSHIP STRUCTURE AS AT MARCH 1983

	No. of Holdings	% of total	Area (ha)	% of total
Private persons	7,318	54.7	55,238	11.7
Informal groups, partnerships and trustes	1,526	11.4	17,163	3.6
Maori Incorporations	48	0.4	2,230	0.5
Companies and joint ventures	1,555	11.6	350,782	74.2
Local authorities	790	5.9	35,842	7.6
Other Government Departments	239	1.8	8,517	1.8
Unknown	1,902	14.2	2,839	0.6
Totals	13,378	100.0	472,611	100.0

Source : New Zealand Forest Service

TABLE 2 : WOODLOTS SIZE ANALYSIS : PRIVATE PERSONS ONLY - ALL OF NEW ZEALAND (1983)

Size class (ha)	Area (ha)	%	Number of holdings	%	Average Size (ha)
100	7,454	13.5	44	0.6	169
50-99	6,579	11.9	94	1.2	70
20-49	13,018	23.6	437	6.0	30
5-18	18,836	34.1	2,101	28.7	9
3- 4	4,757	8.6	1,366	18.7	4
1- 2	4,594	8.3	3,279	44.8	1
Totals	55,238	100.0	7,318	100.0	7.5

Source : New Zealand Forest Service

