MARKETING — AND THE FOREST GROWER

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The National Planning Model represents the future supply of wood produce consequent upon the current management intentions of all forest growers.

Beyond the next 10 years, during which supply will barely meet the pressures of existing demand, the output from our forest estates will increase dramatically. Between now and the end of the century it will more than double.

This level of production is based on the assumption that forests will be harvested at silviculturally optimum times in each stand's life. Silvicultural regimes have been based on the objective of attaining a target tree size, of specified quality, in a given stand life; and as forest growers we have lavished a great deal of professional attention on refining tending practice to meet objectives of optimum volume production and tree quality.

If our forests are harvested too early or too late, our aspirations for optimum production and uniform tree size may be compromised. The fact that most of our young forests have been thinned will prevent the severe problems of overstocking and susceptibility to disease that currently affect the overmature stands of the untended old crop. However, an excessive delay in clearfelling will result in lost production through natural mortality, and in the rapid escalation of tree size which could adversely affect logging and utilisation equipment. On the other hand, the widespread application of heavy early thinning regimes will result in severe loss in productivity if such stands are clearfelled early.

As far as the forest grower is concerned, marketing should therefore, ideally, provide for the harvesting of the forests at the optimum time.

The planning model demonstrates that production will increase in several regions at almost the same time, *i.e.*, between 1991 and 1995. This implies that to realise the optimum benefit from our exotic forests there will be a sudden need for markets, for utilisation industries, and for logging and transport machinery, manpower and expertise.

In several regions these resources will have to be developed from scratch (see Table 1). Other speakers have already highlighted the significance of this in terms of the demand for in-

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TABLE 1: INCREASED PRODUCTION FROM EXOTIC FORESTS
(Extract From National Planning Model)

Region	*Current Production* ($\times 10^6$ m^3)	*2001-5 Production* ($\times 10^6$ m^3)	*Significant Increase From*	*Increase 1976-2005*
Northland	0.2	1.4	1991-5	7 times
Auckland	0.6	1.6	1996-00	3 times
Rotorua	6.2	9.0	1991-5	1½ times
Gisborne	0.01	0.8	1991-5	80 times
Hawke's Bay	0.1	1.9	1991-5	19 times
Taranaki	0.2	0.5	1996-00	2½ times
Wellington	0.3	1.2	1996-00	4 times
Wairarapa	0.07	0.6	1991-5	8 times
Marlborough	0.07	1.2	1996-00	17 times
Nelson	0.4	2.2	1991-5	5 times
Westland	0.02	0.3	1991-5	15 times
Canterbury	0.3	0.9	1991-5	3 times
Otago	0.3	1.6	1996-00	5 times
Southland	0.2	1.0	1996-00	5 times

vestment capital, but I would draw your attention to the demand for harvesting experience, which will be just as vital. Lack of experience in this field could delay the utilisation of forest resources as effectively as a lack of markets or capital.

I believe there is a need to initiate harvesting in areas such as Northland, Gisborne and Hawke's Bay as soon as possible, by establishing markets for small wood. The forest operations associated with these markets will provide experience for logging supervisors and contractors and will provide capital for the steady build-up in equipment and plant to meet the full production of the forests as they mature.

To the forest grower this premature clearfelling will result in some loss in productivity, and an opportunity cost in terms of revenue forgone; but it will be preferable to the delay in full utilisation of the young forests.

An undercut in a situation where the maturing of a forest resource accelerates as rapidly as it will in the 1990s will result in a rapidly escalating backlog. The current tight supply situation could have been avoided if utilisation in the 1950s had been more intensive, and such that stands of inferior quality and growth rate replaced with second rotation stands of tended radiata pine or douglas fir.

In the 1950s one reason for the undercut was the underestimation of standing volume and growth rate. Today we are in a much better position to calculate precise allowable cuts.

Marketing should ensure that our forests are fully utilised, and this will require a well-planned build-up of harvesting resources.

Finally, as a forest grower I must stress the point made by C. J. Mountfort in his paper. *Utilisation of forests must eventually take full advantage of the silvicultural treatments that the young stands have received.* The large, pruned butt logs that have been the objective of these tending regimes bear the ambitions of the forest grower to earn a respectable return on capital invested. They provide New Zealand's future forest industries with a raw material of intrinsically superior quality, and a consequence for marketing is the obligation to ensure that this material is used, and sold, to its full potential.