

of the Forest Service stewardship if such practices are to be perpetuated. The sawmiller is not to blame, nor the district, only the administration. The economic wastage of young growth is sufficiently serious in itself. The contrast between a healthy productive stand and a stark wilderness of felled timber is startling—even the layman can appreciate the fire risk and the opportunities for eroding agencies. For these reasons high lead logging is being severely discouraged, and on new areas will be disallowed except under special circumstances.

Is North Westland to be duplicated? Is one crop of timber to be taken without regard to the future? Is subsequent burning, grazing, and mining to be allowed to develop another unsightly countryside, largely unproductive? Picture the alternative—an evergreen forest stretching in wide swathes to the Southern Fiords—selective logging in place of clearcutting, taking out the larger trees and preserving the younger until thirty years or so later they yield another crop—and so on, it is hoped, *ad infinitum*. Between the forests and the more fertile lands agriculture may then prosper. This again is real forestry—the most promising example of sustained yield management in New Zealand. At the outset the cost of producing logs may be somewhat greater, due to the greater care required in logging and possibly the greater area to be covered in securing current requirements, but any immediate sacrifice will ultimately be repaid manifold. To Westland itself it means permanent prosperity. Here, as in no other place in the Dominion, timber cropping may be immediately substituted for timber mining.

While the kauri forests of Auckland and the rimu-pole-type forests of South Westland are of outstanding importance because of immediately promising results, the rain forests of the mid-Islands districts and the beech forests throughout the Dominion must command increasing attention. Hitherto they have been deemed as worthy of only academic interest. The apparent impossibility of managing them economically—i.e., on any basis of compound interest at current rates—has placed them in an altogether false perspective. It is indeed doubtful if any forest has ever been so managed on short-term rates. Actually the economic aspects are of little significance until the silvicultural and management aspects are fully understood, an achievement which can be attained only by experiment and research. To implement this a demonstration forest has been established in the rain-type forests at Te Whaiti midway between Rotorua and Waikaremoana, whilst a search is being made for similar forests in the beech areas of the Central Plateau of the North Island and of the Nelson and Southland regions. What is not economic this year of grace, 1939, may, under population pressure, be economic in 2139, and upon these demonstration or experimental forests New-Zealanders of that period will be dependent for the proper management of their indigenous forest resources. If only such forests had been established one hundred years ago, how much better equipped would New Zealand be to manage its forests henceforth. The demonstration forests are a very necessary contribution to posterity.

Essentially these experimental forests are for the perpetuation of the indigenous forest resource, since this is the only practicable measure of achieving the national objective in its fullest sense. Whether or not the indigenous forests will eventually of themselves provide the whole or the greatest part of the country's timber requirements the future alone can decide. For a considerable period they cannot, due to the long time required to convert the mature forests into healthy productive stands. Even the physical possibility of this conversion has been questioned. Authorities who cannot be ignored have regarded the indigenous stands as a decadent forest in respect to the commercial timber species. They see, in effect, the meeting in New Zealand, as the last exposed land remnant of a sunken continent, of the vestigial traces of three great primeval forest or botanical associations, one of sub-tropical origin, one of sub-antarctic, and the other of the land mass itself. While the available evidence clearly supports this view, their view that the present commercial timber species are doomed to natural slow replacement by other species offers no bar to an attempt to arrest this succession at the pre-climax stage, thus endeavouring to perpetuate the present industrially useful species. Still, in order to safeguard the general policy of managing the