

The same apathy characterizes every other phase of forest devastation and abuse. The attitude of even direct sufferers is little better, a state of mind, perhaps, resulting largely from an unfortunate element of instability in land-ownership. It is only a minority of the farming community which continues in sufficiently long occupation of any one area to appreciate fully the slow but sure effects of forest-devastation, to watch landslides develop one by one, to find springs ceasing and reducing their flow, and to see the rivers aggrading their beds and wandering across the rich bottom lands, carrying the best soil out to sea. All are long-time effects, and it is the exception rather than the rule to connect such occurrences directly with the odd scrub and forest fire, the ravaging deer, and other agencies of forest-destruction. These forest abuses continue to take an ever-increasing toll of practically every county in the Dominion, yet the limitations of the individual mind render it difficult to bring into public focus the cumulative effects of these individual experiences. Viewed in their proper perspective, however, the effects of forest-devastation constitute the largest single item of waste in the agricultural effort of the community and merit considerably more attention both from the public and more particularly from those directly affected.

*Management of Indigenous Forests.*—In accordance with the national policy of managing the indigenous forests to secure their maximum production of timber the Government has approved of plans for perpetuating the kauri forests and for regulating the supply of kauri timber to the local and export markets. Both the remaining virgin stands and the cut-over areas carrying regeneration and advance growth are being brought under forest-working plans which govern both the extraction of logs and the silvicultural treatment required to maintain the forest in a state of maximum productivity. The first forest to be so treated is the Omahuta State Forest, not far removed from Russell, and permanent extraction routes are now being constructed therein. Dead and over-mature trees will be extracted along with those large healthy trees which can be removed without endangering the subsequent regeneration of the area; and logs disposed of on the extraction routes. A minimum diameter-cutting limit of 27 in. breast-high has been imposed for virgin stands, which means that, generally speaking, only in the young forests where thinning is required will smaller trees be removed. The more recent examinations and inspections of the kauri forests indicate beyond all possible doubt the feasibility not merely of preserving to posterity those few magnificent monarchs which the State Forest Service most zealously guards in its forests as national monuments, but also of maintaining in their entirety the kauri forests in the full vigour of their growth to yield an everlasting supply of this world-famous wood.

Reconnaissances in the rimu pole-type forests of Westland are also being made to locate suitable demonstration-forest units which may be placed under working-plans, as in the case of the kauri forests, and so managed as to maintain mills in permanent production. A similar search for demonstration units is being conducted in the silver-beech forests of Southland, and it is anticipated that within two years working-plans for both rimu and silver-beech forests will be in active operation.

*Exotic Forests.*—The cessation of State exotic planting on a large scale now appears advisable. The country already possesses sufficient planted areas to supplement the indigenous forests and to ensure an adequate supply of timber, &c., for the next century. The extension of the exotic forests for the export of timber and other products cannot be justified on economic grounds. The post-war fears of a world timber famine have been definitely proved as groundless, and the following advantages enjoyed by the North European countries which dominate the international wood-goods trade cannot be lightly ignored:—

- (1) The wages of both skilled and common labour being only from one-quarter to one-half of those in New Zealand, manufacturing as well as forest costs are very much lower, those for forest establishment and maintenance being less than one-tenth of those in New Zealand owing to natural regeneration and absence of forest weeds and pests.
- (2) Lower unit capital investments for all types of wood-converting and power plants and cheaper engineering and chemical supplies than in New Zealand result from low wages and manufacture of machinery and supplies either in their own or immediately adjacent countries. Hydro-electric power is also generated at less than half the cost in New Zealand.
- (3) Not only is inland transport by river-floating, &c., the cheapest in the world, but foreign freight-rates to the world's markets, including Australia, are for all classes of wood-goods lower than from New Zealand.

The Government exotic forest activities must therefore be concentrated upon the consolidation of those areas already planted. The large-scale planting of previous years has disclosed the limitations and weaknesses of various species, and experimental planting of new species is fundamental to the provision of possible alternatives should any further weaknesses develop at a later stage in the establishment of the exotic forests. For similar reasons, experimental planting of exotics in cut-over forests is also contemplated.

*Forest Fires.*—The possibility of planting up extensive areas of deteriorated farm lands with exotics, more especially in the vicinity of urban centres, continues to exercise the public imagination. Quite aside from the fact that in numerous instances the soil and climatic conditions are distinctly unfavourable, there is ever present the practical difficulty of securing suitable administrative units and consolidated areas which lend themselves to reasonable protection against fire. Fire ranks as the outstanding forest abuse of the country. If it could be adequately controlled, the whole of the deteriorated farm lands would re-establish themselves with valuable indigenous forest not only without any material cost, but with distinct direct and indirect advantage to the community.