

9. Arising from the disclosed condition of the exotic forests, the continued contraction in estimated future supplies of exotic timber, more particularly in the form of sawlogs, lends additional support to the policy advocated last year of establishing relatively small exotic forests in poorly-timbered districts. A number of promising areas have already been examined, and there is little doubt that these offer much more promise as an economic source of timber-supplies than the large tract forests of the North Island hinterland. Not all districts, however, are suited either by climate or by soil for the creation of exotic forests. Too often the existence of relatively high-quality indigenous forests is assumed as a favourable index of good exotic-tree growth, whereas the reverse sometimes operates. Typical limiting factors are the relatively low altitudes and well-drained soils required by exotics as compared with the high altitudes and poorly-drained soils occupied by many indigenous forest associations, and it is for these reasons that exotic-forest activities in Westland must be confined to the relatively small areas favourable to their success. On the other hand, Westland is the one district in New Zealand which offers hope of widespread success for sustained yield management of the indigenous forest, thereby ensuring the continuity of the timber industry, an objective which is entirely impracticable by exotic-afforestation measures alone.

SECTION D.—INTEGRATION OF INDIGENOUS AND EXOTIC FORESTS.

10. Equally disturbing as the contraction in estimated supplies of exotic sawlogs is the relatively poor quality of such supplies as are available. Whilst some improvement is being effected by the intensification of pruning-work, the effect of the initial mistakes in espacement and choice of sites is inescapable for generations, and the percentage of timber reasonably free from defects and suitable for finishing purposes in the building, furniture, and other trades will probably constitute but a very few per cent. of the total exotic saw timber production. In contrast, the yields from indigenous virgin timber vary in many forests between 30 per cent. and 50 per cent. of the total cut, and it is upon such percentages that the whole wood-use philosophy of the country is based.

With rapidly-declining supplies of virgin timber, some economy, therefore, appears essential, otherwise the major objective of supplying the Dominion timber requirements will be defeated by a serious deficiency in defect-free timber, coupled with a surplus of low-grade material. Although at present the whole of the exotic-softwood production is absorbed for boxing, crating, and constructional purposes and surplus future production will be eagerly sought after by Australia as a wartime and post-war substitute for North American hemlock and spruce, the time must come when supplies in excess of these demands will become available for local consumption. It is therefore imperative that in the interim every conceivable avenue of economy in the use of the indigenous timbers should be investigated with a view to integrating the utilization of the indigenous and exotic timbers as effectively and as rapidly as possible. The whole gamut of New-Zealand-grown woods must be studied—indigenous and exotic, softwood and hardwood, poor-quality material and high-quality material—all to find a place in the country's wood-use economy.

The plywood and laminated-wood industries are amongst the most promising developments for economizing high-quality material, and their current expansion will ultimately make a noteworthy contribution to the country's wood economy. At the other end of the scale the fibreboard and pulp and paper industries offer an outlet for poor-grade material. Substantial as the contributions by these industries may be, the sawlog is still the major product of the forest, and the balanced absorption of its entire timber yield by the building and constructional industries remains the basic problem of forest utilization. To its solution the energies of the Department are directed.

SECTION E.—FOREST FINANCE.

11. The need for an adequate programme of forest finance to meet the requirements of a ten-year period becomes increasingly apparent each year; past experience shows that forestry will play an important part in the rehabilitation of the men from the fighting Services, and to function effectively the Service must be fully