

The present policy must be ultra-conservative recognition and selection of the optimum remaining localities, careful and even uneconomical exploitation of species that accompany rimu in those localities, and slow, painstaking observation of every symptom indicative of improved rimu growth in infancy and adolescence. As with kahikatea and matai, much of the originally best rimu forest has been turned to pasture and must remain in pasture; but extensive tracts still remain where rimu is thrifty and healthy, and in some of these large areas a permanent rimu forest is undoubtedly a possibility.

*Kauri Forests*: The silvicultural possibilities of kauri within its natural climatic and soil limits are clear. There can be no doubt whatsoever that large tracts of kauri forest can and will be held as kauri forest in perpetuity. Already a large acreage has been brought under working plan and is being added to by purchase of privately owned lands carrying young and advanced growth.

*Beech Forests*: This is a "portmanteau" description covering many types of forests in which one or more of the five different species of indigenous *Nothofagus* occur. It is frequently said that beech occurs throughout New Zealand, but this statement, whilst broadly correct, does not connote the same degree of ubiquity of a species as has been noted above in rimu. Five species are involved, instead of one; each of these has its own preferences in the matter of range and habitat; each species tends towards (though it does not insist upon) purity in its stands. Most helpful of all to the forester, all of the species cling to poorer soils, which are not sought after by the agriculturist. These forests, therefore, present the greatest opportunity of indigenous silviculture on a large scale; and, as a group, they will be the mainstay of the protection, anti-erosion forests of the mountainous core of both Islands. Economically, they will have a value far beyond that; and an intensive silviculture concentrated upon each species in the optimum areas of its natural range will give results that should place New Zealand beech forests in the forefront of the managed hardwood forests of the world.

*Miscellaneous*: The preceding paragraphs deal with the principal commercial forest species in indigenous forests as they exist at present. Minor forests that can and will be reproduced silviculturally are *silver pine* and *kaikawaka*. These are species which have, so to say, taken natural refuge in very poor sites unacceptable to the other forest species. They will reproduce there, and the sites are not suited for either agriculture or better forest species. Their continuance is certain by dint of careful fire protection; their assistance by this and by cheap silvicultural methods is desirable.

In addition to these, it is possible that certain secondary forests of a type unknown in Nature, but consisting of indigenous species, may have a national value sufficient to warrant their protection and even in cases their deliberate establishment. Chief of these is the manuka forest, which is so frequently the first result of man's demolition of the mature indigenous forest. It is not usually a natural climax forest. It is Nature's substitute for a ruined forest, and her foster-mother for a climax forest of the future. However, there are cases where the perpetuation of such a forest may have a very real money value, and the economic manuka forest, or at least manuka compartments in a forest, must be regarded as a distinct probability in the future in many parts of the country.

6. *Exotic Forest Management and Resources*.—Among the basic factual data which must be ascertained before a management policy and working plan can be formulated for any forest are data relating to the areas actually stocked with tree crops and the condition of the crop as to vigour, density, volume of standing timber, and rate of growth. Data concerning tree species and age are available in the exotic forest stock maps, where they have always been recorded during the year in which the trees were planted. The types of information first mentioned and without which sound prescriptions for thinning, clear-felling, and other forest works cannot be drawn up are collected in the field, compartment by compartment. These investigations, termed "assessments of the growing stock," have been prosecuted as rapidly as possible with the staff available,