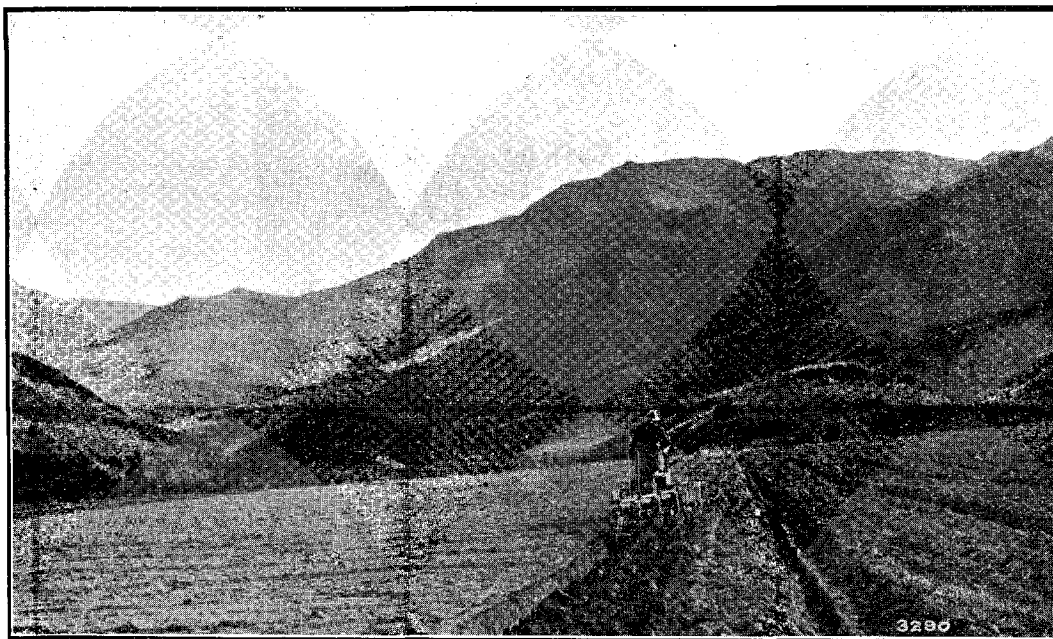


State Forestation.

The Forest Service policy of establishing softwood-supply forest plantations in each province was steadily pursued, and in furtherance of that policy of localization substantial land acquisitions, totaling 135,791 acres, were made in the Provincial Districts of Auckland, Wellington, Nelson, Canterbury, and Otago. Major State plantation centres are now established at Waipoua, Puhipuhi, Riverhead, and Maramarua in the Auckland District; Rotorua, Waiotapu, and Kaingaroa in the pumice region of the same province; Rimu in Westland; Hanmer and Balmoral in Canterbury; and Naseby, Blue Mountains, Greenvale, and Tapanui in Otago. The total area of lands now planted and plantable, as aforementioned, is 269,694 acres, while further acquisitions are being secured as finance and opportunity permit.

After a generation of experimentation, trial, and selection, the Service is now concentrating on the planting of pondosa pine (*Pinus ponderosa*), Corsican pine (*Pinus laricio*), Douglas fir (*Pseudo-tsuga Douglasii*), macrocarpa (*Cupressus macrocarpa*), Lawson cypress (*Cupressus Lawsoniana*), western red-cedar (*Thuja plicata*), insignis pine (*Pinus radiata*), and, to a lesser extent, lodgepole pine (*Pinus Murrayana*), Canary Island pine (*Pinus canariensis*), long-leaf pine (*Pinus palustris*), eucalypts, and other trees. This range of trees is one of the highest economic value, and the crops therefrom will offer the widest diversification of use and permit of the application of modern silvicultural standards. The silvicultural standards of the Service, as regards collection of seed, plant-propagation, type of planting stock, planting technique, and area subdivision and planting are those which have universally proven most efficient and productive. The Service is in continual intimate touch with the forest authorities of the Empire and other countries of forestal importance, and is constantly testing and trying out the practices and methods of other lands. Where found applicable and economical, these are adapted to New Zealand needs. Substantial contributions have been made to the lessening of plantation costs through investigations made during the year by three officers of the Service, in the State of Victoria, Australia, and in British Columbia and the Pacific slope of the United States, while the evolution of new methods and tools by certain officers of the Service will result in the saving of thousands of pounds in forest-establishment. (See page 9 for details.)



MODERN NURSERY PRACTICE: LARGE-SCALE OPERATIONS AT HANMER.

A comparison of the State Forest Service forest-plantation practices and costs with those of other countries discloses that both in economy and results high standards prevail, and it does not appear possible that any further cost-reductions of a substantial nature can be made in the present system of tree-planting. This cost-of-establishment factor has an important relation to the problem of converting to productive use the Dominion's idle waste or deteriorated lands (estimated at approximately 5,000,000 acres) and to the State moneys available for this purpose. It would take two hundred years and an expenditure of over £10,000,000 (based upon present planting-costs) to establish continuous-crop-production forests on this largely man-made waste. Obviously this is not practical politics for even a country so richly endowed as New Zealand.

What, then, is the alternative? Must these wastes remain forever a liability, or can they be utilized to produce useful timber crops?

This national problem has had the continuous attention of the officers of the State Forest Service since 1920, and its solution appears to be in what may be termed "direct plantation-formation." While it is premature to dogmatize, it is expected that the application of direct-plantation-formation practices, now being perfected, will enable the forest authority to establish commercial forests—within