

and soil of this country as compared with their growth elsewhere, together with their respective liability to or immunity from disease, shall be thoroughly studied and ascertained (and this cannot be done in a few years), before the inhabitants of the Dominion are committed to such a large increase in expenditure as would be necessary to insure the future maintenance of the timber-supply from New Zealand sources. Hitherto the operations of the Forestry Branch have been more successful than was anticipated at the commencement of the project, but the losses that have been experienced have been quite large enough to convince the authorities that it is the best policy to proceed with due caution, and not to suddenly enlarge the operations, but rather to expand them very gradually after repeated experiments and results have proved the advisability of doing so under certain conditions.

It will be interesting to trace the evolution of the present system from the conditions that appeared to the Government to dominate the position at the time the afforestation policy was decided upon in 1896. They may be said to include :—

(1.) The recognition of the principle that land suitable for settlement should not be interfered with for the purposes of tree-planting.

(2.) The desirability of utilizing Crown land as far as practicable.

(3.) The selection of localities for the plantations which would be fairly accessible from existing lines of railway, and which would, in the future, be conveniently situated to the probable trade centres.

(4.) The selection of areas of open land that were not in proximity to standing forests, but the climatic conditions of which appeared suitable for tree-growing operations, and whose soil seemed sufficiently good for the purpose.

Owing to the varied nature of the climate, soil, and conditions in different parts of New Zealand, and the necessity of the officer in charge of operations being thoroughly acquainted with local conditions, it was not deemed advisable to engage a foreign expert to superintend operations, but the services of a young and enthusiastic New Zealand nurseryman were engaged at the commencement of the work, and the results that were achieved under his advice from the very start were a convincing proof of the wisdom of the course adopted. A careful and continuous study of the latest publications and methods in vogue on the Continent and elsewhere has been the practice laid down for the guidance of all officers of the Forestry Branch, and as the work of tree-planting in this Dominion becomes more and more important and extensive, it is probable that further steps will be taken by the Government to keep the branch in touch with foreign systems and methods.

The late Mr. Henry Matthews was the officer whose appointment as Chief Forester inaugurated the formation of the Forestry Branch, and from 1896 to his unexpected death in 1909 he had the sole technical control of the tree-planting operations, and to him must therefore belong much of the credit or otherwise of the planting accomplished during this period. Since his death the technical direction of affairs has been intrusted to two Superintending Nurserymen, one who resides at Whakarewarewa, and supervises operations in the North Island, and the other who resides at Tapanui, and controls all the South Island operations. These two officers keep a careful watch over the several nurseries and plantations under their control, and are responsible for the rearing and planting-out of all the tree-plants in each Island. In charge of each State nursery is a Nurseryman, and in charge of each State plantation is a Forester. These officers direct the work of the labourers and others employed under them, and are carefully trained in the respective duties required of them and their staffs.

The Minister in charge of the State forests and all afforestation-work is the Commissioner of State Forests, and each year he lays before Parliament a report on the year's operations. The permanent officer in charge of the branch is the Under-Secretary of Lands, who has supreme administrative control over all operations; and it is to him that the Superintending Nurserymen report, and from him that they take instructions. The financial considerations and all forestry problems that arise from time to time are dealt with by him.

The cost of afforestation operations is defrayed by the sale of timber in State forests, supplemented by a contribution from the Consolidated Fund annually voted by Parliament. Owing to the youth of the plantations, and the immaturity of the timber therein, no returns have yet been derived from them, but it is hoped that in a few years' time a small revenue may be received, which will grow gradually larger as thinnings are available for disposal. When an assured return of thinnings is available in sufficient quantity there may be a possibility of utilizing them for wood-pulp purposes. This is a matter for future consideration, as it depends largely as to whether the timber grown is suitable for that purpose.

To enable a complete knowledge to be gained of the conditions under which tree-planting operations are carried out, it may be well to set out in detail the work of the Superintending Nurserymen, and in Appendices A and B herewith each of these officers narrates the methods and system adopted by him in the nurseries and plantations under his control, from the purchase of the seed to the final transplanting of the young trees from the nursery-beds to the plantation in which they will permanently grow.

Generally speaking, it will be seen that most of the seed is procured abroad until our own trees are large enough to become seed-producers—say, in ten years' time—and that the trees now grown in the State nurseries and plantations are those that continental experience and the results of experiments in New Zealand have shown are best fitted for the soils and climate of this country. In Appendix C is given a full list of all trees grown by the State, and the various qualities and uses to which their timbers can eventually be put. The primary object of the Government is purely utilitarian, as only those trees are grown that are suitable for commercial purposes, and the fact that the formation of plantations will in many cases enrich the soil, regulate to a slight degree the temperature, and conserve the rainfall is more or less secondary, although no efforts have been spared to gain the greatest possible benefits from the operations of the State in this respect.