

REPORT BY CHIEF FORESTER.

SEEDLING TREES.

Notwithstanding the adverse climatic conditions experienced, the results obtained at the various nurseries have been successful beyond expectation, although the officers in charge had an anxious time during the prolonged drought. Not only has a much larger proportion of seedling trees been raised from a given amount of seeds, but the plants generally are much larger and better-rooted than those of any previous crop.

This success is principally due to the excellent germinative qualities of the tree-seeds obtained, and to a lesser extent to the systematic method of seed-raising adopted at the nurseries, which may be briefly referred to in detail.

(1.) The seed-bed grounds at all stations have now been brought into a high state of cultivation, and are of sufficient area to allow of either a definite rotation of crops with systematic manuring, or to lie fallow for one or two seasons—thus limiting the exhaustive tree-crop to one area every third year.

(2.) The adoption of the roller system in sowing and covering the seeds to a defined depth, depending on the class of seeds dealt with.

(3.) The sowing of seeds at the proper time—not at any given date, but depending on the season. In other words, the Nurserymen in Charge have now the necessary experience to enable them to judge at what particular period this work should be undertaken to attain the best results.

(4.) The method of shading and protecting the seed-beds from drying winds and bright sunshine during the critical period of germination by properly constructed seed-frames.

(5.) The judgment of the officers in knowing the exact amount of seed required to a given area, so that the resultant crop will not be too thick to crowd one another, and thus promote conditions favourable to disease, but will allow ample space for further development of each individual.

SELECTION OF TREES LIMITED BY CLIMATIC CONDITIONS.

The question is frequently asked, Is the Department raising and planting the best species of trees suitable for the future timber-supply of the Dominion? The answer is partly in the negative and partly in the affirmative, as I will endeavour to explain.

(1.) There are many species of trees which produce excellent timbers that could be grown in the Dominion, but none of our stations are suitable for their best development, chiefly on account of unseasonable frosts. In this class may be mentioned puriri and pohutukawa amongst native trees, and jarrah, sugar-gum, red ironbark, spotted gum, &c., from Australia.

(2.) Another class may be mentioned which comprises most valuable timber-trees, but their slow growth renders them unprofitable from a commercial point of view—kauri, rimu, kahikatea, matai, tanekaha, kawaka, northern manaoa, southern manaoa, silver-pine, yellow-pine, maire species, and many others.

(3.) The third class comprises exotic trees producing various timbers suitable for all technical purposes, but, owing either to the high cost of the seeds or the uncertainty of procuring annual supplies, their general cultivation is not considered expedient. The common English beech, for instance, is a valuable timber-tree, but there are few trees in the Dominion of sufficient age to produce seeds. The crop is not an annual one (generally every third or fourth year), and all attempts to import it in a sound condition have failed. Other species comprise the English elm, hickory in variety, many of the American oaks, maples, pines, piceas, and abies, seeds of which are either difficult to procure in quantity, do not carry well, or are too expensive for general plantation purposes.

It is confidently asserted that so far as is possible the Department is raising and planting the most suitable classes of timber-trees available for the varied soils and climatic conditions obtaining at the stations at present in operation.

As mentioned in the foregoing remarks on temperature and rainfall, we are restricted to a very narrow limit in our selection, but nevertheless any suggestion or recommendation in regard to this subject will gladly receive every consideration.

PRISON LABOUR.

Thanks to the continued co-operation of the Inspector of Prisons and his officers, I have again pleasure in stating that this system has worked very satisfactorily. The average number of prisoners employed was 75·07, against 78·90 for the previous year. The average value of work done per man for the year is £79 17s. The Foresters in charge of tree-planting camps are unanimous in their reports as to the excellent work done by the prisoners, the majority of whom take a considerable interest in the various duties assigned them; and, from personal observation during several months of the past year whilst located at prison camps, I confirm this opinion, and assert that with few exceptions the prisoners are obedient, willing, industrious, and careful.

In order to enable well-behaved, industrious prisoners to make a fresh start in life on the expiry of their sentences, a special tree-planting camp has been commenced four miles from the Waio tapu Prison. Here discharged prisoners are offered remunerative employment either at contract rates or at day-wages, and during the few months this camp has been in operation the results have been entirely satisfactory.

A similar system might well be adopted near Hanmer Springs with beneficial results both to the State and to unfortunate men who are discharged from prison frequently without friends and without money.

The whole of the available area reserved for planting purposes at Hanmer Springs having been planted a new block of some 600 acres, situated two miles distant towards Jollie's Pass, was taken in hand. The prison huts and other movable structures were transferred to this site during February. A new cookhouse, mess-room, and store have been erected, an efficient supply of excellent water laid on, and special precautions taken in regard to drainage and other sanitary arrangements. The permanent buildings at the old camp have been altered and renovated for occupation by the Nurseryman in Charge. It is anticipated that sufficient land is available within easy distance of the new camp to keep forty prisoners employed for the next five years.