

plant, by which means a higher percentage of strong one-year-old plants is grown to a sufficient size for immediate transference to the plantations.

(6.) The care and diligence of the staff generally in attending to every detail connected with the raising of trees, not only during working-hours, but after hours, as well as on Sundays and holidays.

(7.) The experience of the officers in charge in deciding when to water and when to withhold it, even during a period of drought. As this is probably one of the most important details connected with the raising of tree-seeds, a few remarks may not be out of place. Amongst both professional and amateur tree-growers it is a generally accepted axiom that during dry weather the seed-beds should be kept constantly moist by artificial means; but this view is only partially true under exceptional circumstances. When shading of seed-beds is resorted to, it is surprising to find a sufficient amount of moisture just below the surface, even after a prolonged spell of dry weather. On some free open soils with a gravelly or marly subsoil (such as occurs at Hanmer Springs and Ruatangata) a few weeks of drought has a disastrous effect on germinating seedlings, and artificial watering is imperative to save the crops; but at other stations, if the land is in fit condition, the seed-beds can be thoroughly consolidated by rolling prior to sowing, and the effect of this (along with judicious shading) is that ample moisture is conserved to bring the seedlings through the ground without resorting to watering. It is, further, the firm conviction of the officers of the Department that artificial watering frequently does more harm than good, more especially during a prolonged spell of hot dry weather, such as was experienced at all the nurseries during the early summer months.

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.

FIRES.

It is satisfactory to record that very little damage by fire was done to the State plantations during the year, notwithstanding the exceptionally dry summer, when the herbage amongst newly planted trees was in a highly inflammable condition. Some 4 acres of *Podocarpus totaru* was destroyed at Puhipuhi owing to the carelessness of an adjoining settler burning off his holding, and a few thousand young eucalypti were also destroyed by fire on Whakarewarewa Plantation, due to the subsoil of some recently cleared land smouldering unseen until fanned into flame by a sudden breeze.

LABOUR.

The average number of employees during the year was 151.47, against 161.36 for the previous year. Employees generally have done good solid work at all stations, and at a moderate cost. Wages have been increased 6d. to 1s. per day on account of the increased cost of living. Suitable accommodation has been provided for workmen at Puhipuhi, Ruatangata, Hanmer Springs, and Dusky Hill, and similar provisions are in progress at Whakarewarewa and Conical Hills.

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