

as well as a considerable portion of the fire-breaks at Waiotapu, have been kept in an efficient state entirely by the use of the tractor. Two five-horse teams would have been required to perform the same amount of work, with the added disadvantage that feed and water would have had to be carted to the teams.

A further aid to the prompt suppression of fires will be provided during the coming year, when it is proposed to establish depots for keeping fire-fighting tools at convenient places throughout the entire area under trees. In all, the erection of eighteen such depots is contemplated. The increasing interest taken by many citizens, both European and Maori, in the fire-prevention work is most gratifying, and is herein gratefully acknowledged. Landowners adjacent to the plantation areas have willingly co-operated with the Forest Rangers both by notifying them of their intention to burn off and by permitting and assisting with the burning of strips along the plantation boundaries. Telephonic warnings have been frequently received from persons who have observed fires in the vicinity of the plantations, whilst others, of their own volition, have extinguished fires which might have spread and caused destruction.

The spread of fire is due in a great measure to the large area of unoccupied land in the Rotorua Region. Fires are started by settlers for the purpose of burning off their holdings, and thoughtlessly allowed to spread into adjoining country; and occasionally along tourist routes a fire is started by the throwing of a lighted match or cigarette from a vehicle. The fire danger will probably always exist to some extent, but it could and should be lessened by the introduction of legislation that would act as a deterrent to thoughtless or vicious persons.

BUILDINGS.

The building done during the year was carried out under very great difficulties. Materials were difficult to procure and, like tradesmen's wages, were high in cost. Considerable delay occurred in the delivery of the timber, and this was responsible for increasing the labour-cost to some extent. Additions were made to the two houses in the nursery, and to the building at the Green Lake, which was converted into a suitable dwelling for the forest guard. The erection of the cottages for workmen was unfortunately not able to be undertaken, as the material for this was not delivered until close on the end of the fiscal year. The workmen's cottages will be started early in the coming year, and it is expected that the twelve buildings provided for will be completed by the spring.

EXPERIMENTAL WORK.

A trial which was made with the direct sowing *in situ* of seed of *Pinus radiata* at Kaingaroa gave sufficiently encouraging results to show that, if the method adopted was developed, there is reasonable grounds for believing that much of this land could be successfully afforested at a comparatively low cost. Some years ago trials were made (1) of sowing broadcast the seed amongst the natural vegetation, and (2) of sowing a pinch of seed in a prepared spot. The first method failed, while the second one was only partially successful. From these trials it was apparent that the failures were due chiefly to the lack of moisture available for the seedling during the early stages of its existence. With the sowing in prepared spots the chief fault lay in the fact that failures frequently occurred in patches, and, as the spots were evenly spaced, there were undesirable gaps left.

PRIVATE PLANTING AND SALE OF TREES.

There was a marked increase in the number of applications for trees and tree-seeds during the year, the quantities disposed of being 343,025 trees and 220 lb. of tree-seeds, as against 185,890 trees and 130 lb. of tree-seeds for the previous year. As usual, the demand was chiefly for the fast-growing and hardy species of eucalypts and *Pinus radiata*, and in most cases the trees were planted in single rows along the boundaries for providing shelter for stock.

The correspondence which is entailed with this branch of the service's activities is always very heavy during the planting season, and, although the results are not at present very apparent, the efforts made to encourage and direct the planting done by private individuals must have a beneficial result upon the country in the long-run. These efforts are gradually being directed upon a wider sphere. The co-operation of private nursery firms in growing and selling at reasonable rates approved kinds of forest-trees was secured through the executive of the Nurserymen's Association when in conference last December. Provincial and district secretaries of the Farmer's Union are being circularized, and arrangements are in progress for detailing an officer to visit all parts of the North Island and meet and advise intending planters. In this way it is hoped to stimulate an interest in tree-growing and induce every land-owner to devote at least a portion of his land to the growing of a timber crop, and to plant those trees which have an economic value quite apart from their use as shelter.

REVENUE.

The amount of revenue derived from the North Island plantations and nursery is detailed hereunder along with last year's revenue for comparison :—

	1920-21.			1919-20.		
	£	s.	d.	£	s.	d.
Sales of trees (343,025)	677	3	8	339	9	3
Sales of tree-seed (220 lb.)	153	6	7	114	17	11
Sales of firewood (92 cords)	194	11	6	331	11	0
Sales of posts and battens (1,400)	3	10	0	210	15	0
Grazing	112	5	11	144	8	9
Rent of cottages	289	11	8
Sundry recoveries	181	12	6	209	10	11
	£1,612	1	10	£1,350	12	10