

THINNING AND UNDERPLANTING.

Thinning, which had to be suspended during the war period, is now an urgent necessity on several compartments at Whakarewarewa and Waiotapu Plantations. The areas under European larch will need to be attended to first, and although this work is now in progress it will be necessary to expedite it to some extent. A small area of *Pinus radiata* also requires immediate attention, and this will probably be completed during the forthcoming winter. A great deal of the land now occupied by European larch originally carried a dense growth of bracken, and experience shows that this comes away strongly again as soon as thinning is done. It is therefore necessary either to thin very lightly or else open it up sufficiently to permit of underplanting being done. Unfortunately it has not been possible to obtain the usual supply of tree-seeds during the past four years, with the result that there are now very small stocks of Weymouth pine, Douglas fir, and Californian redwood plants available for underplanting. Until these are available the thinning will therefore need to be light. The Weymouth pine has proved an excellent tree for planting through a thinned larch plantation, and the same remarks apply to the Californian redwood. The results of the trials made with the Douglas fir are not so promising as the other trees mentioned, but it grows satisfactorily where the thinning has been fairly heavy. Up to the present time all thinnings have been disposed of either as firewood or mining-timbers, and as the demand for this material will in all probability increase there seems no reason to doubt that the expenditure on thinning will, in a great measure, be recovered from revenue.

REVENUE.

The receipts for the year, of which details are given hereunder, amounted to £1,234 11s. 8d., which is short of last year's total by £300-odd. Fewer trees were sold, but the chief cause in the shrinkage of the revenue was the shortage of firewood and poles due to the partial cessation of thinning. A considerable amount of business in both these lines had to be refused, but with a return to normal conditions there is scarcely any doubt that the revenue from the disposal of forest products will increase.

Receipts for the year were as follows:—

	£	s.	d.
Sales of trees (204,155)	367	4	4
Sales of seeds (132 lb.)	84	19	5
Sales of poles (3,597)	67	19	0
Sales of firewood (163 cords)	283	5	0
Grazing	168	0	11
Sundry recoveries, &c.	263	3	0
	<u>£1,234</u>	<u>11</u>	<u>8</u>

INTERPLANTING EXOTIC TREES IN NATIVE FORESTS.

For the purpose of experimenting with exotic trees in indigenous forests trial plots have been selected at Mamaku upon an area of forest from which the timber of millable size and quality has been removed. During the winter these plots will be fenced sufficiently to exclude horses and cattle, and plantings made with a number of exotic trees. The species of trees which are available are Weymouth pine, Douglas fir, Sitka spruce, Lawson's cypress, Monterey cypress, and silver-fir. The enclosures will be made sufficiently large to enable the following kinds being added when trees of same are available—viz., *Thuja gigantea*, Californian redwood, and *Cryptomeria japonica*. A small experimental planting of this nature made with the Monterey cypress in the native forest at Moerangi last winter promises to be successful.

DAMAGE TO PLANTATIONS BY DEER.

A considerable amount of damage has taken place at Whakarewarewa Plantation as the result of the ingress of red deer from the forest country around Lake Okataina. In ordinary times not many of these animals are seen in the plantation, but when the shooting season commences the herds make for the plantations to find sanctuary. Several attempts made to destroy them have proved unsuccessful, as, owing to the amount of cover, they are most difficult to detect. At Kaingaroa, too, tracks have been seen in the small area of native forest, but so far no damage to the planted trees has resulted there. Considering the great damage these animals will assuredly cause if they become plentiful, it would appear to be but right that the Department should be consulted before any further lots are liberated. Such work as the natural regeneration of native forest-trees or the interplanting of exotic trees in forests would be much handicapped if deer were plentiful. Some means of control should be devised to ensure keeping them out of forest country as yet free of them.

ACCOMMODATION FOR WORKMEN.

A difficulty is frequently experienced in obtaining suitable labour owing to the want of accommodation for married men. This is frequently a trouble when it is necessary to transfer a married officer to a station hitherto under the charge of a single officer. The plantation at Waiotapu is the worst off in this respect, but even at Rotorua married men often have to refuse the offer of work because they cannot secure a house. A step has been made in rectifying this disability by the erection of married officers' quarters at Waiotapu and Kaingaroa. The erection of a number of cottages at Waiotapu for the workmen is also under consideration, and it is hoped that something in this direction will be accomplished during the next twelve months. A fairly large number of men can now be permanently employed upon maintenance and thinning work on the older plantations, and the providing of suitable accommodation for these will be necessary within the next few years.

GENERAL.

Preparations are well advanced for planting next winter about 1,500,000 trees. These will occupy an area of about 1,200 acres, and the majority of the planting will take place at Kaingaroa Plantation,