

Details of Trees transferred to Plantations, &c., 1918-19.

Where sent.	Name of Tree.	Number.
Whakarewarewa Plantation ..	<i>Cryptomeria japonica</i>	15
	<i>Cupressus arizonica</i>	80
	„ <i>Formosensis</i>	81
	„ <i>glabra</i>	35
	„ <i>macrocarpa</i>	2,425
	„ <i>McNabiana</i>	47
	„ <i>torulosa</i>	4
	<i>Thuja gigantea</i>	170
	<i>Pinus radiata</i>	180,000
	<i>Pseudo-tsuga Douglasii</i>	32
	<i>Sequoia sempervirens</i>	675
		183,564
Waiotapu Plantation	<i>Acacia decurrens</i>	370
	<i>Pinus ponderosa scopulorum</i>	52,275
	„ <i>radiata</i>	929,452
		982,097
Kaingaroa Plains Plantation ..	<i>Eucalyptus Macarthuri</i>	5,000
	„ <i>viminialis</i>	1,500
	<i>Pinus Laricio</i>	1,139,000
	„ <i>ponderosa scopulorum</i>	23,400
	„ <i>radiata</i>	254,675
		1,423,575
Puhipuhi Plantation	<i>Pinus radiata</i>	40,000
Sales to farmers—Timber and shelter trees		195,022
Sales to public bodies—Shelter trees		9,133
Soldier settlers (free)—Timber and shelter trees		22,555
Native schools (free)—Timber and shelter trees		124
Total		2,856,070

WHAKAREWAREWA PLANTATION.

The climatic conditions during the year were extremely variable. The winter was the severest experienced for a number of years, being unusually cold and wet. Copious rainfalls followed a late spring, and continued to the end of February, the benefits from which were largely counteracted by severe frosts in December, which retarded the growth of larch on the low-lying country, and on small areas of Douglas fir. There is nothing outstanding in the matter of tree-growth, this being if anything slightly below the average in the older compartments.

During the short spells of dry weather fires were fairly frequent on the country adjoining the plantation. These invariably occurred on unoccupied lands during Sunday afternoons, and were probably caused by picnic or hunting parties. There were no losses from fire in the plantations during the year.

Insect and other Pests.—A small caterpillar made its appearance late in the season on the pine plantations, and was noticed on a few isolated specimens throughout the ten-year-old *Pinus Laricio* and *Pinus Murrayana* compartments, and to a less extent on *Pinus radiata*. It is apparently a species of Tortrix, and the damage done is confined to the current season's needles, which are bitten through and wither off.

Rabbits and hares destroyed a few trees on the recently planted areas. Red deer also did some damage by barking a few of the established trees and trampling out some of the smaller ones. This damage does not extend over a very great area, but in view of underplanting being done throughout the native bush, and as deer make the bush their camping-grounds, they will have to be taken into consideration before this work is undertaken.

Tree-growth.—On the recently planted areas Monterey pine continues to make strong healthy growth, and is rapidly outgrowing the bracken. Douglas fir and Weymouth pine have also made good growth. A small lot of *Eucalyptus Macarthuri* planted two years ago on somewhat exposed country are a complete failure, despite special precautions being taken at the time of planting to ensure a crop. Sweet-chestnut are a very indifferent lot and have made very little height-growth.

Establishing.—All the land suitable for tree-planting within the plantation boundary is now in trees.

During the year 183,568 trees were received from the Rotorua Nursery, of which 180,000 *Pinus radiata* were planted on an area upon which trial planting of *Eucalyptus* had failed. The remaining trees, which comprised several species of *Cupressus*, were utilized for experimental work.

As the result of a shortage of labour, clearing for tree-planting extended over a period of four months, and, owing to the lateness of the season, the burning-off was difficult and expensive.