

PUKERAU PLANTATION, OTAGO.

(Area, 628 acres; altitude, from 700 ft. to 1,400 ft.; commenced operations, 1915.)

Very satisfactory headway is being made in tree-growth at this plantation. The “break” of *Pinus ponderosa* is specially promising, and this type of western yellow-pine is evidently admirably adapted for afforesting Otago’s exposed hillsides. All *Pinus radiata* are also developing quickly, and giving evidence of partiality to the rough conditions allocated them. Strangely enough, the Corsican pines are not showing up well so far, but this might be attributed to the fact that the trees were somewhat on the small side when planted out. After making good progress for the first year the poplars, although favoured with a good growing season, have made little growth, and the prospects of being able to adhere to our original scheme of marginal planting with even the hardiest species of the *Populus* genus are now poor. The experimental planting is fairly good, and next year a detailed report on each block will be submitted. Much horse-labour has been necessary in cultivating the virgin tussock-clad land used for fire-barriers; but in the course of two or three years this work will be greatly lessened by the introduction of sheep on to the reserve. Nearly all the camps have been dismantled and re-erected at Greenvale Plantation. During the year 106,300 *Pinus radiata* and 6,000 *P. ponderosa* were planted here, leaving an unplanted area remaining of 90 acres, which will be operated upon during the coming season.

The expenditure for the year amounted to £537 ls. 10d., giving employment to an average of 3·4 men. The total expenditure since initiation amounts to £3,310 8s. 4d.

Acreages of Trees planted.

Name of Tree.	Area.	
	Pure.	Mixed.
	Acres.	Acres.
<i>Pinus Laricio</i>	54	..
„ <i>radiata</i>	263	..
„ <i>ponderosa</i>	145	..
„ <i>austriaca</i>	40	..
„ <i>muricata</i>	6	..
„ <i>Benthamiana</i>	3	..
„ <i>pinaster</i>	3	..
„ <i>Taeda</i>	1	..
„ <i>Thunbergii</i>	1	..
„ (experimental — including <i>Pinus patula</i> , <i>P. Banksiana</i> , <i>P. sylvestris</i> , <i>P. strobus</i> , <i>P. Montezumae</i> , <i>P. Murrayana</i>)	2	..
<i>Larix leptolepis</i>	$\frac{1}{2}$..
<i>Picea excelsa</i>	1	..
<i>Pseudo-tsuga taxifolia</i>	4	..
<i>Eucalyptus</i> (species)	8	..
<i>Populus</i> (species)	3	..
<i>Alnus glutinosa</i>	1	..
<i>Cupressus macrocarpa</i>	$\frac{1}{2}$..
Total	536	..
		536

GREENVALE PLANTATION, OTAGO.

(Area, 5,169 acres; altitude, 700 ft. to 1,200 ft.; commenced operations, 1917.)

Work has been carried on here under difficulties owing to the dearth of suitable labour. Notwithstanding a late start, it was possible to plant out some 581,220 trees, as detailed on the following schedule. Generally the result is quite satisfactory, a good average growing percentage and regular development being noticeable even on the poorer hilltops. The preparation of ground on the rough fern-clad hillsides proved to be rather more costly than usual, and it is fortunate that we were favoured by a mild season, otherwise it would not have been possible to operate over several of the rougher gullies. All the pines used have demonstrated their suitability to the positions allotted, and a very interesting trial planting of various species of eucalypts has furnished results that should influence the extension of our gum plantations. A good deal of preliminary fencing-work and camp-formation has been necessary, and the marking-out and ploughing of fire-breaks also occupied some considerable time. As part of the area has now been surveyed by Surveyor Leonard, and the boundaries of the planted blocks defined, it will be possible to carry on the recording-work accurately and expeditiously. During the coming year it will be necessary to erect a further three miles of fencing, to which the attachment of wire netting only is required over the greater distance. Should labour be sufficiently plentiful nearly a million trees will be handled here during the next winter and spring months.

The expenditure for the year was £3,464 7s. 9d., and to date £3,932 8s. 1d.