

NASEBY PLANTATION, CENTRAL OTAGO.

(Area, 2,850 acres; altitude, 2,450 ft.; commenced operations, 1900.)

A very successful transplanting season has been experienced at this plantation owing to an abundance of rain throughout. The total rainfall for the year amounted to 28·47 in., rain having fallen on 107 days during the year. Frost occurred on 157 days; but, although larch has been slightly affected, no material damage from this source is noticeable amongst any other species.

Almost all trees have maintained good normal growth, and the plantation generally looks healthy. Established larch has made an average vertical growth of about 2 ft. 6 in., and *Larix leptolepis* is especially healthy-looking, and in many cases has put on fully 3 ft. for the season. This species appeared to be a failure for the first two or three seasons after planting. *Pinus radiata* has, as usual, not transplanted with such success as most other species; but the “strike” is rather above the average usually experienced here. A trial of 1,000 of these planted last autumn proved a success, and hardly a death is recorded, where the previous year’s spring planting absolutely failed. By using discrimination in selecting the ground, autumn planting of this species should prove an advantage. This applies to sunny faces and ground where the danger of frost-lifting is remote. Both *Pinus Laricio* and *P. ponderosa*, where they have been established for some years, have made an average growth of 18 in., and in the current season’s transplants the losses could be limited to about 3 per cent. at the outside. A small compartment of *Eucalyptus Macarthuri* was experimented with, and, although we have not yet been able to judge the effect of frost, they are at present doing well. *Cupressus macrocarpa* was also tried, but with only indifferent results. Both this species and *Pinus radiata* require to be planted in the season as early as possible, in order that they may have the benefit of the spring rains and become established before the advent of the drying north-westerns of the summer months.

Planting was commenced on the 3rd August and completed on the 27th November, the total number of trees dealt with for the season being 553,728. Of this number some 432,104 were planted on new area comprising approximately 234 acres, and the remainder, 121,624, were used to replace blanks—the large number accounted for in this manner being due to blanks not having been attended to for two seasons. The pruning of several large compartments occupied the staff for two months subsequent to the completion of planting operations, and when this was completed pitting by contract was again resumed.

Some 400,000 pits are now available for the reception of the coming season’s output, and it is estimated that pits sufficient to accommodate the 700,000 trees expected from Ranfurly Nursery will be completed within the next two months. During the winter one of the division fences was removed and re-erected along the southern boundary, thus enclosing sufficient ground to provide work for the next two seasons. The next extension of the boundary-fence will enclose about 350 acres, and complete the enclosure of the whole of the surveyed plantation area at present held by the Department. All fire-breaks received the usual cultivation necessary to keep down weeds, and one or two additional ones were ploughed where required. Surface cultivation is all that is necessary with the majority of the fire-breaks now, and the addition to the departmental property of a suitable machine would reduce considerably the amount of work required each year in ploughing, provided it could be done in the spring. Rabbiting has been carefully carried on and the pest kept down as well as possible, but it is a difficult matter to keep flood-gates in order owing to freshets in the Eweburn Creek, which each time this occurs makes a new channel. The camps will require to be shifted shortly, and it is proposed to remove them to a more central position, from which it may be possible to work the remaining ground available for tree-planting.

The total expenditure for the year was £1,283 3s. 8d., and the total to date £12,225 10s. 4d. The average number of men employed during the year was 6·14.

Rainfall, Temperature, &c.

Month.				Rainfall.	Number of Days Rain fell.	Temperature.		Number of Days Frosts occurred.
						Maximum.	Minimum.	
1917.				In.		Deg. F.	Deg. F.	
April	..	..	..	2·02	7	74	22	12
May	..	..	..	3·81	9	60	24	19
June	..	..	..	0·92	4	60	16	27
July	..	..	..	0·68	9	54	20	23
August	..	..	..	1·53	8	58	16	29
September	..	..	..	2·41	10	64	22	15
October	..	..	..	4·16	14	70	24	11
November	..	..	..	2·30	8	79	26	7
December	..	..	..	3·93	14	78	28	5
1918.								
January	..	..	..	2·14	9	84	30	5
February	..	..	..	1·06	10	86	31	1
March	..	..	..	3·51	7	82	27	3
Totals	..	..	..	28·47	109	..	..	157