

them of developing. In continuation of the replanting scheme, some 10,000 *Pinus radiata* will be planted on exposed positions, where trees originally placed have made no progress.

Two employees were engaged in attending to the necessary maintenance-work, which required an expenditure of £376 19s. 5d.

F. BENFELL,
Plantation Foreman.

RANFURLY NURSERY, CENTRAL OTAGO.

(Area, 49 acres ; altitude, 1,400 ft. ; established, 1896.)

The past year has been one of the most trying experienced for many years. A succession of north-west gales was prevalent right through the planting season and well into the month of February. In consequence, the work of lining-out trees was made very trying, and at the same time the "strike" has been very poor with *Pinus Laricio* ; but other varieties, such as larch and *Pinus ponderosa*, have done exceedingly well. The absence of steady rain was also a factor in retarding the growth. The season, as a whole, has been against nursery-work, and the above conditions are accountable for the reduced output this season. The annual rainfall for the year amounts to 18·07 in. on 122 days, which shows a decrease of 6·15 in. on the previous year. The maximum shade temperature was 85°, in December. The minimum temperature in the screen was 16°, in August, and on the ground 13° during the same month. Frost occurred on 154 nights in the screen, and on the ground on 214 nights. The sowing of seeds was commenced in the month of September, and a later sowing (for supplying settlers) in December. The "strike" of seedlings has been very satisfactory, especially *Pinus Laricio*, *P. ponderosa*, *P. Benthamiana*, and *P. radiata*. *Pinus Lambertiana* failed to germinate, and *P. Taeda*, *P. muricata*, *Larix leptolepis*, and *Pseudo-tsuga taxifolia* very poorly. From 100 lb. of *Pinus Laricio* 450,000 seedlings were raised, and 50 lb. of *P. ponderosa* produced 300,000 healthy plants. The seed sown in December has done remarkably well, especially a trial sowing of *Pinus radiata* in drills. The latter were sown in drills 10 in. apart, and had neither watering nor protection of any kind. If these seedlings are not thrown out during the winter I am quite satisfied that, if sown earlier, all our seeds could be treated in this manner, which would mean a great saving in different ways. We will have to wait and see the effect of the winter before passing any decided comment ; but from all appearances the experiment is a valuable one. In order to cope with the extra pine-seed supplied this season eighteen frames, 18 ft. by 6 ft., were made by the employees during the winter. The estimated number of seedlings raised for the season is 913,800, and the estimated number of trees of all ages in stock is 1,692,600.

During the season trees to the number of 708,800 were transferred to the Naseby Plantation, and to other stations and institutions 115,000. The output for the coming season will be somewhat reduced owing to climatic conditions, as outlined previously, the approximate number fit for removal being 600,000. As the land these trees are to be planted on is not clear of rabbits, the usual method of carting trees before spring will have to be abandoned ; but in the meantime the trees will be lifted, sized, and heeled-in in readiness for removal in the spring. We have had some difficulty in getting chaff cut, and have been buying locally ; but the present prices are almost prohibitive. We have something like 1,500 bags in stack at Gimmerburn, and arrangements have been made to have this cut up, and the surplus over what is required sold. In order to keep up the fertility of the soil, green crops have been sown and ploughed in on all lining-out ground. A portion of about 2 acres has been sown down in grass and clover for a period of two years.

The expenditure for the year amounted to £1,052 0s. 1d., and to date £16,163 18s. 9d. The average number of men employed was 4·09 for the year.

Rainfall, Temperature, &c.

Month.	Rainfall.	Number of Days Rain fell.	Temperature.		Number of Days Frosts occurred.
			Maximum.	Minimum.	
1914.					
April	In.		Deg. F.	Deg. F.	
April	2·07	15	69	24	7
May	2·30	12	62	17	26
June	1·07	11	52	21	29
July	0·50	9	56	18	25
August	0·74	7	63	16	27
September	1·05	8	69	22	18
October	1·78	9	77	23	6
November	1·81	11	72	27	5
December	1·46	8	85	28	5
1915.					
January	1·06	10	84	30	1
February	2·68	11	78	28	2
March	1·55	11	77	29	3
Totals	18·07	122	..	..	154