

ROTORUA NURSERY.

The weather conditions throughout the past year have been remarkably favourable for nursery-work, and the growth made by the young trees is better than it has been for many years past. In pursuance of the policy to reduce the operations as much as possible without incurring a loss of growing stock, the quantity of seed sown was extremely light, and resulted in some 738,000 trees being raised. As the annual production of trees in normal times has been about 5,000,000, it will be seen that very stringent measures have been adopted to release men for more important work. Most of the trees raised have made very good growth, and in the majority of cases the rate of germination has been quite satisfactory. The crop of Corsican pine was, however, a failure owing to the poor quality of the seeds.

The curtailment of planting operations has resulted in there being a much larger proportion of three-year-old trees in stock than usual. In order to prevent loss only the largest of the two-year-old trees have been sent to the plantations during the past two years, while the smaller-sized trees were lined out in nursery rows. These three-year-old trees have made very strong growth, and will be much more expensive to transport to the plantations.

Provision has been made for sale of trees to farmers to the extent of 250,000. These are chiefly *Pinus radiata* and *Eucalypti*, and all are well-grown sturdy plants.

The trial lots of Scots fir (*Pinus sylvestris*) are proving very disappointing. Notwithstanding the excellent weather experienced, these plants have made practically no growth, and there would appear to be no reason to doubt but that this species is quite unsuitable for this district. Small quantities of a number of eucalypts hitherto untried here are now under trial, and will be further reported on in due time. The several species and varieties of poplar which were imported direct from Kew in response to a request from this office have all succeeded with the exception of four sorts, which were lost owing to the cuttings being too weak to acclimatize. The plants have been planted where they can stool out in order to get a supply of cuttings. *Populus regenerata*, *P. Eugenei*, *P. robusta* have made very strong growth; *P. serotina* is good, but somewhat slower-growing than the preceding ones; *P. monilifera*, *P. angulata*, *P. nigra*, and *P. Petrowskyana* are still slower of growth. When the stools become thoroughly established it is proposed to propagate from them in order to give each of the kinds a thorough trial on the plantation reserves.

The crop of Douglas fir raised from seed in 1915 is of a type that has not hitherto been grown here. Some doubts which were felt about the plants in the seedling stage have confirmed the opinion that the plants are not out of the Pacific coast type. They are faster-growing than what has been known here as the Colorado variety, but have not the healthy vigour of the coastal variety. It is proposed to keep the plants for another year in the nursery in order to place the matter beyond doubt before sending the trees to the plantations.

The land not required for tree crops has all been placed under temporary pasture, from which a good crop of hay was secured, besides a very considerable amount of grazing. This method of restoring and improving the soil-fertility has proved most satisfactory, and, in addition, has supplied fodder for all the working-animals. Although a number of new weeds have been introduced to the nursery by medium of the grass-seeds sown, the system of green-manuring is gradually suppressing the troublesome sorrel-growth. This in itself is a great advantage, as sorrel has hitherto been the most troublesome of all the weeds that have to be contended with.

As will be seen by referring to the schedules of trees attached hereto, the number of trees in the nursery at the 31st March was 5,202,030, while the number transferred to the plantations and sold during the year amounted to 4,234,331.

The average daily number of workmen employed during the year was 28.79.

Following is a record of the rainfall and temperature for the year:—

Rainfall, Temperature, &c.

Month.	Rainfall.	Number of Days Rain fell.	Temperature.		Number of Days Frosts occurred.
			Maximum.	Minimum.	
1916.	In.		Deg. F.	Deg. F.	
April	4.310	8	66	30	2
May	5.770	17	68	30	1
June	4.290	16	62	26	7
July	1.740	14	64	26	8
August	10.192	20	62	26	11
September	2.345	12	64	24	10
October	6.500	23	72	26	4
November	7.810	19	74	30	2
December	7.465	12	81	39	..
1917.					
January	2.440	13	84	45	..
February	5.610	13	85	41	..
March	2.310	8	80	40	..
Totals	60.782	175	..	..	45