

WAIREKA CAMP PLANTATION.

During the year an area of 752 acres was planted with 923,650 trees, and 302,350 trees were planted to replace failures in the area planted during the previous year. Owing to adverse weather conditions, and more particularly to the dry weather and frosts during the spring and early summer months, the failures amongst newly planted trees are more numerous than usual. A considerable area of the land planted consists of gullies where the cold becomes very intense at night, and consequently spring frosts have a deadly effect upon newly planted trees.

Maintenance-work.—All the boundary fire-breaks were ploughed and disked, and the internal ones cleared and burned off. There is very little bracken or other rank-weed growth on any part of this block, and the maintenance is therefore not a heavy item.

Roads.—The central road was continued and connected up with the camp reserve, thus giving access to the greater part of the reserve. Most of the formation was on level country, and the work was done with a plough and road-grader.

Buildings.—Nine huts, each capable of accommodating four men, were built to replace the tents. Besides being more comfortable the huts will prove much more economical than tents in the long-run.

Preparations for 1920.—Since November last an area of 900 acres on portion of the Reparoa Estate recently acquired by the Crown has been cleared and burned. Pitting will be commenced shortly, and it is anticipated that before the planting is started in the spring the preparations will be sufficient for planting 500,000 trees.

All the work done prior to November has been charged to Waiotapu Plantation, and the trees planted have been included in the summaries attached to the report upon that station. Subsequent work has been debited to Kaingaroa West, this being a subsection of the Kaingaroa Reserve.

All the work done at this station has been performed by discharged soldiers. That a more worthy and deserving class of man is now being employed is evidenced by the fact that the average period of employment per man is much longer than formerly.

The average daily number of men employed throughout the year was 25·96.

KAINGAROA PLAINS PLANTATION.

A new area of 658 acres was planted during the year, thus bringing the total area planted to date to 6,665 acres. The weather conditions throughout the planting season proved far from favourable; the early part of the season was unusually dry, whilst throughout the winter and well into the spring frosts were frequent. Trees to the number of 800,860 were planted on new area, and 116,375 were used to replace failures in the previous season's planting. The death-rate—estimated at present—amongst the trees planted last winter is higher than it has been since the year 1914. Amongst the Corsican pine it is estimated that the failures amount to 20 per cent., whilst the *Pinus ponderosa* var. *scopulorum* show about 8 per cent. of failures. A small lot of 18,000 *Pinus radiata* were almost an entire failure owing to the severity of the weather in the late spring. The average death-rate since 1912, the year in which the work commenced at this station, is 15 per cent.

Road-formation.—Owing to the shortage of prison labour very little progress has been made with the new roads. A small gang was occupied for about two months on the cuttings referred to in last year's report, and, although a considerable amount of good work was done, the road is still unfinished.

Maintenance.—In addition to the labour required to keep the fire-breaks in an efficient state, a considerable amount of work was needed to keep the fern and tutu in check amongst the small trees. The eastern end of the reserve, towards which the operations are now approaching, is clad with bracken and manuka much more heavily than the land already planted, and consequently the maintenance charges are likely to be higher than heretofore. A tractor which was purchased for cultivating the fire-breaks has so far given excellent results, and it is evident that the ever-increasing area of fire-breaks can with this machine be dealt with much more expeditiously and probably more cheaply than was possible with horses.

Temporary Nursery.—Although the growth is much slower than at Rotorua, the nursery stock produced is very robust. During the year 800,000 *Pinus radiata* were raised from seed, and about the same number of lined-out trees were grown. One of the paddocks has been ploughed, and will be worked up in readiness for lining-out about two million seedlings next spring.

Cropping.—About 30 tons of hay and the same quantity of oaten sheaf were harvested and securely stacked. This will provide ample feed for the horses during the year.

Buildings.—A cottage for the foreman and a hut for the horseman were erected during the year.

Preparations for 1920 Planting.—An area of approximately 1,000 acres has been cleared and pitted in readiness for next season's planting. The trees available for planting are chiefly Corsican pine, Douglas fir, and *Pinus radiata*.

Summary showing the Area of Kaingaroa Plains Plantation (6,665·26 Acres in Trees).

	How occupied.	Acres.
Pines	...	6,299·51
Douglas fir	...	340·17
Larch and chestnut mixture	...	25·58
Roads, tracks, and fire-breaks...	...	446·18
Unplanted land	...	26,243·56
Total	...	33,355·00