

as a firebreak. This land, and also the half-chain reserved around the fence-line, was ploughed and it is intended to keep it cultivated in order to prevent the spread of fire. As there is now a considerable area of land reserved for roads and firebreaks, it will be necessary to procure a horse-hoe for the purpose of keeping down the growth of weeds, &c., before next summer. Another horse will also be required for this work, and for assisting to distribute the trees to various parts of the plantation.

It is estimated that in two more years the present enclosure will all be planted, and, as the eastern portion of the block is a considerable distance from the camp, a good deal of time will be lost by the prisoners walking to and from their work. This, perhaps, would not be a great consideration during the summer months; but in the winter, when a great deal of work has to be done, the prisoners only work seven hours per day, and one hour and a half each day at least would be lost in walking to and from the work. In view of the foregoing facts, it would be desirable to select a further area for planting purposes before next spring, and have this fenced, so that the prison-camp could be shifted, and the furthest-off and most inaccessible parts of the present enclosure planted from the new base.

Details of expenditure and values are appended.

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

Month.	Rainfall.	Number of Days Rain fell.	Maximum Tempera- ture.	Date.	Minimum Tempera- ture.	Date.
1905.	Inches.		Degrees.		Degrees.	
March ...	0.46	6	82	10th, 21st	32	7th, 8th, 18th
April ...	2.34	10	72	6th	22	22nd, 23rd
May ...	3.93	15	64	2nd	22	3rd
June ...	5.56	18	56	13th	18	6th, 10th
July ...	6.49	17	56	1st, 22nd	16	18th
August ...	4.43	14	58	18th, 30th	16	7th
September ...	4.19	25	60	9th, 14th, 15th	20	5th, 6th
October ...	7.82	21	70	18th	24	14th
November ...	3.93	19	80	14th	26	15th
December ...	2.85	16	84	12th	24	24th
1906.						
January ...	2.20	10	86	14th	26	31st
February ...	2.43	14	80	1st	22	20th
Totals ...	46.63	185	...	...	...	...

T. B. CURLE, Assistant Forester.

H. A. GOUDIE, Nurseryman in Charge.

#### KAINGAROA PLAINS PLANTATIONS (FOUR).

(Altitude, 2,000 ft; total area, 25 acres.)

Four years ago these experimental areas were planted with various trees in order to ascertain which species could be grown on these elevated wind-swept plains. Around each area a belt of *Pinus radiata* was planted for shelter, and these have made a remarkable growth, considering the exposure to which they were subjected, the majority of them having reached in four years a height of from 10 ft. to 14 ft. Larch, Corsican pine, Austrian pine, and English birch have all made good sturdy growth—not the rapid growth noticeable with these species in the Waiotapu Valley, but moderately quick, with hard, well-ripened wood. Other trees planted were Norway spruce, Menzie's spruce, Oregon pine, and Lawson's cypress. The first three species are, on the whole, in very good condition, but it is evident that without the shelter afforded by the *Pinus radiata* these would not have grown so well. Of the three, perhaps the Menzie's spruce is the most successful. The Norway spruce and Oregon pine have made remarkable growth where sheltered, but in the centre of the areas, where they are more exposed to the wind and the early morning sun, many of them are stunted and frosted. Lawson's cypress, so far as can be judged at present, is a decided failure, and seems to be scarcely any larger now than when it was planted. It has also suffered from the depredations of hares, which have nibbled off the young growth as it appeared. Judging from these experiments, it is safe to say that larch, Corsican pine, Austrian pine, and birch can be grown here as successfully as in any part of the Hot Lakes District, and these species of trees should be the principal ones used when the Waiotapu Valley is all planted and operations are properly commenced on the plains. The Norway spruce, Oregon pine, and Menzie's spruce, no doubt, could be successfully grown in selected situations, but would not do for general planting. No work has been done here during the past year, but it is intended shortly to send a gang of prisoners from Waiotapu Plantations to prune the trees and clear away the undergrowth.

T. B. CURLE, Assistant Forester.

H. A. GOUDIE, Nurseryman in Charge.