SESSION II.
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NEW ZEALAND.

DEPARTMENT OF LANDS:
REPORT ON STATE FORESTS.

PART I.—STATE FORESTS UNDER THE CONTROL OF THE CONSERVATORS OF STATE FORESTS.
PART II.—STATE FORESTS SET APART FOR AFFORESTATION, UNDER THE CONTROL OF THE CHIEF FORESTER.

Presented to both Houses of the General Assembly by Command of His Excellency.

REPORT ON THE STATE FORESTS BY THE UNDER-SECRETARY FOR LANDS.

Department of Lands, Wellington, 20th June, 1906.

As already foreshadowed in the annual report of the Department upon the lands administration, I have the honour to submit herewith a definite report upon the State forests of New Zealand, as distinct from last year's report on "The Timber Industry of New Zealand," which dealt with the operations of the numerous sawmillers throughout the colony and the utilisation of the milling-timber, both as regards the consumption within the colony and its export outside.

This report refers only to State forests proclaimed as such by the provisions of "The New Zealand State Forest Act, 1885," which must not be confused with the ordinary Crown forests set apart under the authority of "The Land Act, 1892," and under the control of the Land Boards and the Commissioners of Crown Lands.

Judging from articles which have appeared from time to time in the public Press, there appears to be some misapprehension as to the powers of the Government, represented by the Commissioner of State Forests appointed by "The New Zealand State Forests Act, 1885." Section 6 of that Act provides that sums accruing from the management of State forests are to be paid into a separate account of the Consolidated Fund, to be called the "State Forests Account"; and section 7 authorises the Commissioner of State Forests to borrow money for State-forest purposes up to £10,000, but gave no power to enable the cost of the State Forests Department to be defrayed out of the Consolidated Fund in the same way as other Departments of the Government. It therefore became necessary to raise revenue from the disposal of marketable timber out of the State forests by sale on royalty to sawmillers, the sums so acquired being used for the gradual development of a Department whose duties would embrace the work of afforestation and replanting, and whose operations would be confined to districts where the original native growth had disappeared, and, in consequence, the climatic conditions demanded reforestation.

The efforts of this Branch of the Lands Department, under the control of the Chief Forester, were therefore naturally turned, first, to the treeless areas of Central Otago, in the South Island; and, secondly, to the large pumice plains in the interior of the North Island, between Rotorua and Taupo, known as the Kaingaroa and Waiotapu plains; followed by the initiation of nurseries and plantations at Hanmer, in the Canterbury District, and similar works at Starborough and Dumgree, in Marlborough. The latest nursery and plantation area is that of Kurow, in North Otago, where the mellowing influence of forest-growths are much needed in that treeless locality.

The yearly expenditure on the above work has risen from £10,334 in the year 1901–2 to nearly £20,000 in 1904–5; and will probably increase to £28,000 in the current twelve months. Since 1896 practically £100,000 has been spent upon reforestation. The revenue from State forests for those periods amounted to £17,000 for 1901–2; £16,000 for 1902–3; £17,000 for 1903–4; £16,000 for 1904–5; £20,000 for 1905–6.

Thus far it has been shown that the Government has not stayed its hand in the matter of providing timber-supplies for future generations, whilst the work of afforestation is going steadily forward, and its progress is both real and systematic. It must also be borne in mind that the men employed as nurserymen and overseers have required special training for their work, and that continuous experiments have had to be made to ascertain the various descriptions of trees most suitable for rearing and planting out, bearing always in mind the varied climatic conditions prevailing in the different parts of the colony. No less than thirty-two million tree-plants have been so raised in the State nurseries from their commencement, and the annual output is now over eight million trees.

Following upon these prefatory remarks are given summaries setting out the details of the gazetted State forests and the State nurseries and plantations.

Part I is a statement in schedule form of all State forests in the several land districts, and accompanying it are to be found brief summaries of those areas in each district and their present condition, whilst statements by each Conservator of State Forests are attached, giving full particulars of the individual forests in his district under his charge, and periodically inspected by the Forest Rangers.

Part II is specially devoted to the usual annual report by the Chief Forester, on the reforestation areas under his more immediate control, and regarding which he has, with his usual clearness, detailed the work done during the past year.

Interesting maps are also attached, showing the locality of the various State forests and the timber they contain.

WILLIAM C. KENSINGTON,
Under-Secretary.

The Hon. T. Y. Duncan,
Commissioner of State Forests, Wellington.

PART I.

SUMMARY OF STATE FORESTS UNDER THE CONTROL OF THE CONSERVATORS OF STATE FORESTS.

Land District.	No.	Area of Forests.	Area burnt or destroyed (approx.).	Area grassed.	Area replanted.	Area remaining in Natural State (approx.).	Milling-timber remaining.
		Acres.	Acres.	Acres.	Acres.	Acres.	Sup. Ft.
Auckland ...	61	234,824	22,111* / 52,800†	7,650	1,618	159,913	234,792,402
Hawke's Bay...	17	222,936	1,000*	Nil	Nil	221,936	205,000,000
Taranaki ...	25	64,145	Nil	"	"	64,145	77,160,000
Wellington ...	45	938,951	3,433*	123	"	935,518	41,480,000
Marlborough ...	2	25,260	500* / 1,120†	300	"	23,640	94,000,000
Nelson ...	23	8,900	310*	Nil	"	8,590	27,393,000
Westland ...	3	456	456†	"	"	Nil	10,000
Canterbury ...	85	270,631	10,631‡†	Not given	Not given	260,000‡	Not given.
Otago ...	10	91,100	1,000*	Nil	"	90,100	3,700,000
Southland ...	20	445,150	350* / 4,800†	"	"	440,000‡	62,723,700
Totals ...	291	2,302,353	98,511	8,073	1,618	2,203,842	746,259,102

* Burnt. † Destroyed. ‡ About.

AUCKLAND DISTRICT.

The State Forests in this district cover 234,824 acres, comprised in sixty-one different areas. Out of this about 22,000 acres has been burnt off at various times, mainly through accidental fires spreading into the reserves, and some 7,650 acres have accordingly been grassed to enable the land to be used for grazing purposes, whilst 1,618 acres have been replanted, and will eventually become forest land once more.

From the careful inspections that have been made from time to time, it would appear that about 126,000 acres of the forest contain timber suitable for milling purposes, and, as the result of continuous and pressing applications by the sawmillers, over 154,000,000 superficial feet have been sold on royalty to supply in some measure the increasing demand for timber in the North. It is now estimated that about 234,000,000 superficial feet still remain available for this purpose, and will be sufficient to meet the demands for some years to come.

Although large quantities of timber have been so disposed of and otherwise destroyed, yet it is estimated that no less than 160,000 acres are yet in their natural state. This includes a considerable quantity of milling-timber suitable for disposal, and a fair proportion of land that will be available for settlement purposes when the timber has been cleared off the surface; but, making allowances for this, there would appear to be about 90,000 acres suitable only for reservation for climatic purposes, as the land is too rough and mountainous to be utilised in any other way. Such forest areas will be of inestimable good in preventing the degradation of the soil, and retarding the rapid rise of mountain streams after a heavy rainfall, by absorbing the surplus moisture and allowing it to gradually percolate through the vegetation to the benefit of the lower-lying lands.

HAWKE'S BAY DISTRICT.

The seventeen forests in Hawke's Bay comprise 222,936 acres, mostly in the Poverty Bay portion of the district or along the slopes of the Ruahine Ranges in the south. They are reported to be still in their natural state, covered with mixed forest, scrub, and fern. It is estimated that they contain over 200,000,000 superficial feet of milling-timber, and up to the present none of this has been sold or disposed of to the sawmillers, and still remains available for that purpose. Practically, the bush-fires have not encroached into the State forests, and, with the exception of a few acres on the outskirts, they are in a virgin state. Tree-planting has not yet been necessary in the district, and as most of the reserves are situated on the mountain ranges which form the backbone of Hawke's Bay, it is important from a climatic point of view to preserve them untouched. Being remote from the various trade centres, and comparatively inaccessible, there is not likely to be much demand for the timber in these forests for a long time to come.

Taranaki District.

There are twenty-five different State forests in this district, covering an area of 64,145 acres. All the land is still in its natural state, and is covered with mixed bush and timber, the latter being almost entirely available for milling purposes, as only about 4,000 acres of these forests are not so suitable. None of the timber has yet been disposed of to sawmillers, and there is consequently an estimated quantity of 77,000,000 superficial feet which could be utilised if deemed advisable. However, much of it is difficult of access and situate in remote localities, so that disposal in this manner is not at present practicable. Fires have apparently encroached very little into the reserves, and the forest seems to be untouched, so that tree-planting operations have not yet been needed in Taranaki, and the lands serve the purpose for which they were originally set aside, and assist in maintaining the climatic equilibrium of the country.

Wellington District.

Some forty-five State forests in this district contain 938,951 acres of land set apart under the provisions of the Act. With the exception of a few acres in the outskirts, the whole of this large reserve is still in its natural state, and contains great quantities of valuable milling-timber, though for want of easy access a large proportion cannot be utilised for that purpose for many years to come. About 3,600,000 superficial feet has been disposed of to sawmillers and others, and fires have swept through the bush on about 3,000 acres, thereby destroying the forest growing on the land, but with this inconsiderable exception the forest reserves are untouched. No reforestation has yet been carried out in the Wellington District, and as much of the present reservation is unlikely to be needed for settlement requirements, but is admirably adapted for climatic and scenic purposes, it is probable that tree-planting on a large scale will be unnecessary for a long time to come.

Marlborough District.

There are only two State forests in Marlborough, comprising 25,260 acres. About 15,500,000 superficial feet of timber has been felled and sold to sawmillers, and it is estimated that about 94,000,000 superficial feet of milling timber still remains available. An area of 500 acres has been burnt, and of this 300 acres has now been put down in grass. None of the cleared area has yet been replanted, as only some 1,600 acres has been affected in this manner.

Nelson District.

In Nelson are to be found some twenty-three different blocks of land set apart under the State Forests Act, aggregating 8,900 acres. It is estimated that 27,000,000 superficial feet of milling timber are included in these forests, and of this none has been disposed of in any way. About 310 acres of bush has been destroyed by fires sweeping through it, but, with this exception, the whole of the land reserved is still in a state of nature, and, from a climatic point of view, is very useful to the district. No replanting has been thought necessary under the above circumstances.

Westland District.

Only 456 acres, in three reserves, have been set aside for State forest purposes. They have been denuded of the original indigenous forest, but a secondary growth is now springing up and covers all the area.

Canterbury District.

There are no less than eighty-five different areas of forest lands set aside under the provisions of the Act in Canterbury, extending over 270,631 acres. Most of these forests were recommended for reservation for climatic and preservative purposes, to prevent the back country from being converted into shingle-faces, rather than for any timber-value. The majority of the reserves are of such altitude and so difficult of access that they are of little value for milling purposes, though it is estimated that there is a large proportion of birch timber which will eventually be available for utilisation in this manner. In North Canterbury some 7,000 acres of forests were destroyed by fire about eight years ago, and subsequently partly surface-sown in grass, and in many of the forests traces of fires are to be seen, though much damage has not been done. No afforestation has yet been considered necessary in the reservations, though at Hanmer and elsewhere plantations have been started and are doing well, as will be seen by the Report on Afforestation by the Chief Forester of the Department.

Otago District.

Some 91,100 acres, comprised in ten different blocks, have been set aside as State forests in Otago, mostly in the extreme north of the district, round the McKerrow, Young, and other ranges. About a thousand acres has been destroyed by fire, but with this exception the forests remain in their natural state. About 200,000 superficial feet of timber has been cut and sold off the reserves, and it is estimated that 3,700,000 superficial feet of milling-timber are available for future supplies. None of the burnt area has been grassed or replanted, but the Chief Forester has planted 1,679 acres of plantations in other parts of the district, which more than counteract the destruction of the natural forests.

Southland District.

The second largest area of lands reserved for State forest purposes is to be found in this district, as 445,150 acres contained in twenty reservations have been set aside from time to time. Very little forest has been burnt, and practically the whole of the area is still in its natural state, and no less than 102,630 acres of sawmilling bush is still available for future operations, containing approximately 92,000,000 superficial feet of rimu, 16,000,000 superficial feet of kahikatea-9,000,000 superficial feet of matai, and 200,500,000 superficial feet of totara, whilst 93,000,000 superficial feet of birches are estimated to be included in the above forests. Outside these areas is the great Sounds National Park, of over 2,000,000 acres, so that climatic considerations have been well looked after in the Southland District.

Details of State Forests

Reserve No.	Survey District.	Area.	Forest.		Milling-timber.		Area.			Remarks.
			If in Natural State.	If containing Milling-timber.	Felled and sold on Royalty.	Remaining.	Burnt.	Grassed.	Replanted.	
					AUCKLAND LAND DISTRICT.					
		Acres.			Sup. Ft.	Sup. Ft.	Acres.	Acres.	Acres.	
6	Whangape, Block XIV	7,700	Yes ..	Yes ..	..	55,000,000	..	..	..	High land, situated west coast, contains 50,000,000 ft. kauri and 5,000,000 ft. rimu.
7	Omahuta, Blocks XI, XII, XV, XVI, and XIII, I, III, and IV	16,024	No ..	,, ..	14,176,521	41,401,972	100	100	..	Country undulating, suitable for settlement. Altitude, sea-level to 1,502 ft. Access, Hokianga Harbour. Remaining marketable timber now measured and nearly ready for disposal.
14	Tutamoe, Block X	7,750	Yes ..	No ..	..	..	..	..	..	Native bush, towai, rata, tawa, &c.; rough land.
33, 15	Tutamoe, Block XV	1,250	,, ..	,, ..	..	..	..	..	..	High mountainous country, 2,000 ft. to 2,500 ft. above sea-level, suitable for climatic purposes.
16	Whangarei and Bay of Islands County, Blocks III, IV, VII, and VIII	17,640	No ..	Yes ..	60,000,000	1,500,000	10,000	4,000	871	Part suitable for settlement, part can be utilised for reforestation; position, good, easy access.
17	Hukerenui, Block X	500	,, ..	No ..	1,400,000	..	200	..	..	Kauri timber now being worked by lessees.
21	Whangarei, Block X	600	Yes ..	Yes ..	..	500,000	..	..	..	In natural state.
26	Mangakahia, Block VIII	1,210	No ..	,, ..	80,000	500,000	300	300	..	Held under grazing-lease year to year.
29	Maungaru, Block IV	467	Yes ..	,, ..	..	1,000,000	..	..	..	In natural state, remaining timber mostly kauri.
32	Hobson, Kaihu, Tutamoe, Blocks III, IV, XVI, and XV	5,450	No ..	,, ..	44,136,069	15,300,000	2,725	..	..	Considerable portion suitable for settlement. Timber remaining, kahikatea, rimu, and a little kauri.
35	Mangakahia, Blocks X and XIV	12,355	Yes ..	,, ..	..	26,000,000	500	..	..	Exclusive of 8,000,000 ft. of kauri sold recently to Smith Bros. (operations not yet commenced). Measuring remaining timber in hand, comprising kauri, rimu, kahikatea, matai, and totara.
37	Waitemata, Kaipara, Block XV	175	,, ..	No ..	..	..	..	..	..	Rough poor land; mostly covered fern and tea-tree, light bush and gullies.
38	Rodney, Arai Parish, Blocks V and VI	425	,, ..	,, ..	..	..	..	..	..	Covered mostly with light native bush.
39	Rodney, Pakiri, Block VI	1,550	No ..	,, ..	779,547	..	..	..	..	Timber disposed of on royalty and worked off.
40	Rodney, Pakiri, Block XIV and XV	593	,, ..	,, ..	..	..	..	..	..	Timber sold and worked, including No. 39, total.
41	Rodney, Hoteo Parish, Blocks I and II	925	Yes ..	,, ..	..	..	..	..	..	Native bush in natural state.
42	Tauhoa, Block X	1,525	,, ..	,, ..	..	..	..	..	..	In natural state, native bush.
43	Waitakarei Parish, Blocks XII and XIII	300	No ..	,, ..	..	..	150	..	..	Miscellaneous lease, section 232, "Land Act, 1892."

44	Otau Parish, Block XIV	834	Yes	..	Yes	..	..	1,750,000	..	..	..	Kauri, 500,000 ft.; rimu, 1,250,000 ft. Timber remote from suitable market.
45	Raglan, Block VII	2,270	„	..	No	..	..	..	..	..	..	One quarter area open land, remainder native bush with a few scattered rimus.
46	Karioi Parish, Block IV..	2,898	„	..	„	..	..	..	..	..	..	High country covered with native bush.
48	Kawhia, Pirongia, Block II	3,000	„	..	„	..	..	..	..	..	..	Ordinary mixed bush, steep broken land. Altitude, 3,000 ft., and suitable for settlement.
53	Moehau, Block II	2,720	„	..	Yes	..	..	1,500,000	..	..	..	Mostly high country, 1,000 acres fern and scrub, remainder native bush.
60	Tairua, Blocks X, XI, XIV, and XV	3,910	No	..	No	..	6,100,000	..	..	..	..	Old workings cut out.
65	Piako and Ohinemuri, Block XI	2,500	Yes	..	„	..	..	..	..	..	..	Te Aroha Mountain; high steep land, mostly covered with light bush and scrub.
66	Piako, Block XV	1,436	„	..	„	..	..	..	..	..	..	Native bush with some scattered rimu; soil good.
67	Katikati, Block VIII	270	„	..	„	..	..	..	..	..	..	About 100 acres open land, remainder native bush, comprising tawa, rata, and a few scattered rimus; country rough.
68	Katikati, Blocks I and IV	144	„	..	„	..	..	..	..	..	..	Undulating country covered with native bush of no marketable value.
68A	Aongatete, Block I	81	„	..	„	..	..	..	..	..	..	Ditto.
69	Tauranga, Block VIII	541	„	..	„	..	..	..	..	..	..	„
70	Otanewainuku, Block XII	3,050	„	..	Yes	..	..	9,150,000	..	..	..	In natural state, covered with mixed bush. Milling-timber mostly rimu. Country undulating to flat; soil good.
74	Rotorua, Block II	747	No	..	No	..	..	..	..	..	747	State forest plantation at Whakarewarewa all planted.
79	Haparapara and Raukumara, Blocks VIII, IX, XII, XV, II, III, V, and VI	57,700	Yes	..	„	..	..	..	..	..	..	No milling-timber; mixed forest, chiefly towai; broken country, unsuitable for settlement. Elevation, from 500 ft. to 3,500 ft.
81	Tatua, Block VI	252	No	..	Yes	..	750,000	500,000	..	..	..	Felled timber cut for telegraph-lines, remainder suitable for public purposes.
1	Whangaroa, Block 2	1,292	No	..	Yes	..	2,500,000	375,000	..	..	..	Rough broken land, unsuitabe for settlement. Altitude, 50 ft. to 1,200 ft.
1A	Kaeo, Blocks X, XI	2,112	„	..	No	..	2,000,000	..	..	..	..	Mostly broken country, one-third fern, one-third suitable for settlement. Access from Okaihau. Altitude, 500 ft. to 1,800 ft.
2	Maungataniwha, Blocks V, VI, VII	3,097	Yes	..	Yes	..	..	2,500,000	..	..	..	In natural state. Altitude, from 200 ft. to 1,916 ft.
3	Maungataniwha, Blocks XI, XII, XV, XVI ..	8,243	„	..	No	..	..	..	..	..	..	Covered in native bush, steep broken land. Altitude, 200 ft. to 2,400 ft.
4	Takahue, Block IX	4,160	„	..	Yes	..	..	4,000,000	..	..	..	Covered in natural bush, about 4,000,000 ft. kauri; remaining timber of no marketable value.
8	Omapere, Block XIII	640	„	..	No	..	..	..	..	..	..	Country undulating, suitable for settlement; road access. Altitude, 700 ft. to 1,400 ft.
9	Waoku, Blocks V and VI	3,692	„	..	Yes	..	..	1,000,000	..	..	..	High rough country, access difficult; suitable for climatic purposes.

Details of State Forests—*continued.*

Reserve No.	Survey District.	Area.	Forest.		Milling-timber.		Area.			Remarks.
			If in Natural State.	If containing Milling-timber.	Felled and sold on Royalty.	Remaining.	Burnt.	Grassed.	Replanted.	
					AUCKLAND LAND DISTRICT—*continued.*					
		Acres.			Sup. Ft.	Sup. Ft.	Acres.	Acres.	Acres.	
10	Waoku, Blocks IX and X	3,510	Yes ..	Yes ..	..	500,000	..	..	..	High rough country, access difficult; suitable for climatic purposes.
11	Waoku, Block XII	150	,, ..	No ..	..	..	..	..	..	Native bush, towai, tawa, rata, &c.
12	Punakitere, Blocks IX and XIII	928	,, ..	,, ..	..	..	300	..	..	High land, part broken and part fern.
13	Waipoua, Blocks I, II, III, IV, VII, VIII	22,640	,, ..	Yes ..	..	65,000,000	Very little	..	..	Situated west coast. Contains about 65,000,000 ft. kauri, of which about 5,000,000 ft. is dry. High land. Soil mostly poor. Altitude, from 200 ft. to 1,800 ft.
18	Opuawhanga, Blocks V and VIII	2,195	No ..	,, ..	3,389,715	300,000	1,600	..	..	590 acres green bush.
19	Whangarei, Blocks I and II	1,369	,, ..	,, ..	..	150,000	1,000	..	..	Marketable timber measured and ready for disposal.
20	Whangarei, Block VII	854	,, ..	,, ..	..	300,000	50	..	..	Timber, kauri, part dry.
22	Purua, Block XI	1,580	Yes ..	,, ..	..	1,500,000	..	..	..	Timber chiefly kauri and kahikatea.
23	Purua, Block I	163	,, ..	No ..	..	..	..	..	..	Light native bush.
24	Purua, Block I	180	,, ..	,, ..	..	..	..	..	..	,,
25	Mangakahia, Block IV; Mototau, Block XVI ..	576	No ..	Yes ..	2,114,695	400,000	200	200	..	Held under grazing-lease for fourteen years. Timbers remaining, chiefly rimu and kahikatea.
26A	Mangakahia, Block VIII	277	,, ..	No ..	..	..	100	..	..	Held under grazing-lease, year to year.
27	Mangakahia, Blocks X and XIV	2,054	,, ..	Yes ..	4,169,834	3,500,000	50	50	..	Kauri worked out, remaining timber mostly kahikatea.
28	Maungatapere Parish, Block V	883	,, ..	No ..	900,000	..	500	..	..	Milling-timber worked out; held under year-to-year lease.
30	Waipu and Mareretu, Blocks I, IV, and XII ..	7,225	,, ..	,, ..	317,965	..	4,000	3,000	..	Kauri worked out, other timbers of no commercial value.
31	Mareretu	382	,, ..	,, ..	198,000	..	..	..	..	Marketable timber all worked out.
34	Waipoua, Block XII	754	Yes ..	,, ..	..	..	..	..	..	High steep country (Maunganui Bluff), covered with scrub and light native bush.
36	Tangihua, Block VII	6,265	No ..	Yes ..	11,157,746	1,165,430	300	..	..	High country, part broken, soil fair.
44A	Opaheke, Otau Parish, Blocks XI and XII	500	,, ..	..	..	..	..	..	..	No report; timber supposed to be cut out.
47	Karioi Parish, Block X	640	Yes ..	No ..	..	..	36	..	..	Some scattered rimu; 43 acres felled for road purposes, remainder native bush.
	Totals	234,824	..	..	154,170,092	234,792,402	22,111	7,650	1,618	

HAWKE'S BAY LAND DISTRICT.

1	Mangaoporo	2,306	Yes	..	Yes	..	..	5,000,000	..	..	..
2	Mangaoporo	1,880	,,	..	,,	..	..	4,000,000	..	..	..
3	Mata	1,756	,,	..	,,	..	..	4,000,000	100	..	..
4	Hikurangi, &c.	134,204	,,	..	,,	..	..	70,000,000	..	..	..
5	Ngatapa	1,880	,,	..	,,	..	..	11,000,000	..	..	..
6	Ngatapa	1,142	,,	..	,,	..	..	2,500,000	..	..	..
7	Ngatapa	1,800	,,	..	,,	..	..	7,500,000	..	..	..
8	Hangaroa	600	,,	..	,,	..	..	1,500,000	..	..	..
9	Hangaroa	1,142	,,	..	No	..	..	..	600	..	..
10	Waikaremoana	22,200	,,	..	Yes	..	..	44,000,000	..	..	..
11	Kaweka	26,386	,,	..	No	..	..	..	..	..	..
12	Kuripapanga	941	,,	..	,,	..	..	..	..	..	..
13	Whakarara	10,450	,,	..	,,		..	..	200	..	..
14	Makaretu	1,700	,,	..	Yes	..	..	10,000,000	..	..	..
15	Norsewood	5,225	,,	..	,,	..	..	18,000,000	100	..	..
16	Norsewood	620	,,	..	,,	..	..	2,500,000	..	..	..
17	Woodville	8,704	,,	..	,,	..	..	25,000,000	..	..	..
	Totals	222,936	..		..		..	205,000,000	1,000		

TARANAKI LAND DISTRICT.

..	Mimi, Section 20, Block IV	585	Yes	..	No	..	..	..	..	..	..
..	Mimi, Sections 12, 13, Block VIII	788	,,	..	,,	..	..	..	..	..	..
..	Mimi, Sections 10, 11, 12, Block VII	2,380	,,	..	,,	..	..	..	..	..	..
..	Mimi, Section 17, Block VIII; Sections 5, 6, 8, Block XII	4,356	,,	..	Yes	..	..	7,000,000	..	..	..
..	Mimi, Section 10, Block XIII	1,886	,,	..	,,	..	..	5,500,000	..	..	..
..	Upper Waitara, Section 5, Block IV	1,535	,,	..	,,	..	..	3,000,000	..	..	..
..	Upper Waitara, Section 7, Block VIII	1,744	,,	..	,,	..	..	2,000,000	..	..	..
..	Tikorangi, Section 63	56	,,	..	No	..	..	..	..	..	..
..	Waitara, Sections 22, 23, Block XV	3,217	,,	..	Yes	..	..	6,500,000	..	..	..
..	Waitara, Section 16, Block XVI	397	,,	..	,,	..	..	500,000	..	..	..
..	Upper Waitara, Section 6, Block IX	1,660	,,	..	,,	..	..	2,000,000	..	..	..
..	Upper Waitara, Section 3, Block X	615	,,	..	,,	..	..	900,000	..	..	..
..	Upper Waitara, Section 8, Block XIII	2,970	,,	..	,,	..	..	5,000,000	..	..	..
..	Ngatimaru, Section 44, Block II	92	,,	..	,,	..	..	100,000	..	..	..
..	Ngatimaru, Section 12, Block IV..	406	,,	..	,,	..	..	400,000	..	..	..
..	Huiroa, Sections 6, 11, Block VIII	630	,,	..	,,	..	..	1,260,000	..	..	..
..	Omona, Section 8, Block II	575	,,	..	,,	..	..	800,000	..	..	..
..	Cape, Section 15, Block X	64	,,	..	No	..	..	..	..	..	..
..	Pouatu, Section 5, Block X	405	,,	..	Yes	..	..	1,000,000	..	..	..
..	Pouatu, Section 13, Block XV	52	,,	..	No	..	..	..	..	..	..
..	Mahoe, Section 19, Block I	524	,,	..	Yes	..	..	500,000	..	..	..
..	Taurakawa, Section 6, Block II	358	,,	..	,,	..	..	200,000	..	..	..
..	Taurakawa and Kapara, Rawhitiroa Block ..	35,040	,,	..	,,	..	..	35,000,000	..	..	..
..	Kapara, Section 4, Block I	358	,,	..	,,	..	..	500,000	..	..	..
..	Opaku, Sections 3, 4, Blocks VII, XI, ...	3,452	,,	..	,,	..	..	5,000,000			
	Totals	64,145	..		..		..	77,160,000			

DETAILS OF STATE FORESTS—*continued.*

Reserve No.	Survey District.	Area.	Forest.		Milling-timber.		Area.			Remarks.
			If in Natural State.	If containing Milling-timber.	Felled and sold on Royalty.	Remaining.	Burnt.	Grassed.	Replanted.	
					WELLINGTON LAND DISTRICT.					
		Acres.			Sup. Ft.	Sup. Ft.	Acres.	Acres.	Acres.	
..	Mangawhero, Section 6, Block XII	337	Yes ..	No ..	..	..	..	..	..	
..	Hautapu, Section 16, Block I	246	„ ..	Yes ..	..	400,000	..	..	..	
..	Waiotoka, Blocks XIV, XV, XVI, Mangamaire, Blocks I, II, III, IV, V, VI, VII, VIII, IX	45,146	„ ..	No ..	..	..	..	..	..	Mostly open land.
..	Ohinewairua, Sections 31, 32, Block IX	490	„ ..	Yes ..	..	100,000	..	..	..	The open portion leased to Mr. Williams for fourteen years.
..	Ruapehu, Block XV; Karioi, Blocks II, III ..	6,760	„ ..	„ ..	..	600,000	..	..	..	
..	Kaimanawa, Pihanga	45,000	Part ..	No ..	..	..	..	..	..	
..	Tongariro, Ruapehu	80,800	„ ..	Yes ..	..	20,000,000	..	..	..	
..	Makuri, Block I	200	Yes ..	„ ..	..	450,000	35	35	..	
..	Mangahao (part of), Blocks I, II, IX, XIII.. ..	25,200	„ ..	No ..	..	..	38	38	..	
..	Tararua (part of), Blocks II, III, IV, V, VI, VIII, IX, XI, XII, XIII; Mikimiki, Blocks II, III, VI; Arawaru, Blocks X, XI, XII, XIII; Waiopehu, Blocks IV, VII, XII	155,000	„ ..	„ ..	..	..	..	..	..	
..	Tararua, Section 1, Block IV	202	„ ..	„ ..	750,000	..	..	..	..	
..	Mangaone, Sections 7, 11, Block I	309	No ..	„ ..	Unknown	..	..	..	..	
..	Tararua, Sections 5 and 6, Block II	74	Yes ..	„ ..	„	..	..	..	..	
..	Tararua, Section 12, Block VII	292	„ ..	Yes ..	„	Unknown	..	..	..	
..	Tararua, Section 7, Block XIV; Mangaone, Section 174, Block XIII; Mikimiki, Section 6, Block IV; Kopuaranga, Section 16, Block I	1,998	„ ..	„ ..	..	1,630,400	..	..	..	
..	Rewa, Blocks VI, X	3,900	„ ..	No ..	..	..	..	..	..	
..	Rewa, Sections 679, 681, Block XI	390	.. ..	.. ..	..	..	..	..	..	
..	Wainuioru, Section 291, Block X	981	Yes ..	Yes ..	..	1,650,400	..	..	..	
..	Parts of Taungata, Eritonga, Mikimiki, Waiohine, Tiffin	155,000	„ ..	No ..	..	..	..	..	..	
..	Waiohine, Blocks III, IV, V, VI, VII, VIII; Eritonga, Blocks I, III, IV, V; Akatarawa, Blocks IV, VII, VIII, XI, XII	36,400	„ ..	„ ..	..	..	..	..	..	
..	Mikimiki, Blocks XIII, XIV; Tiffin, Block I ..	2,700	„ ..	„ ..	..	..	..	..	..	
..	Waiohine, Blocks II, IV; Tiffin, Block I, V ..	5,700	„ ..	„ ..	..	..	..	..	..	
..	Tiffin, Blocks I, II, V	1,285	„ ..	„ ..	..	..	..	..	..	
..	Waiohine, Blocks IV, V, VI	5,370	„ ..	„ ..	..	..				
..	Hauraugi, Blocks III, VI, VII, VIII, X, XI, XII, XV, XVI; Kaitawa, Blocks III, IV, VII, VIII, X, XI	32,000	„ ..	„ ..	..	..	3,000	..	..	
..	Waiohine, Sections 543, 544, Block VII	965	„ ..	„ ..	..	..	..	..	..	
..	Akatarawa, Blocks XII, XVI; Waiohine, Block VII; Wairarapa, Block II	3,000	„ ..	„ ..	..	..	..	..	..	
..	Wairarapa, Blocks I, II, V; Onoke, Blocks I, II, III, V, VI; Pencarrow, Blocks II, V, VI; Rimutaka, Block XVII	21,000	„ ..	„ ..	..	..	..	..	..	

..	Rimutaka, Blocks II, III, VI, VII, IX, X, XI, XVII; Wairarapa, Block V; Onoke, Blocks II, III, V	31,400	Yes ..	No ..	..	..	..	..	..	
..	Akatarawa, Blocks I, V, IX; Paikakariki, Blocks IV, VII	13,300	,, ..	Yes ..	..	2,000,000	..	..	..	
..	Akatarawa, Blocks XV, XVI; Rimutaka, Blocks III, IV	6,500	,, ..	No ..	..	..	..	..	..	
..	Arawaru, Blocks VIII, X	..	,, ..	No ..	..	..	..	..	..	Rough broken country, only suitable for forest reserve.
..	Waiopehu, Blocks VII, VIII, XV, X, XI, XIV; Taungata, Blocks II, III, V, VI, IX, X, XIII; Kaitawa, Blocks XII, XVI	155,000	,, ..	,, ..	..	..	..	..	..	Ditto.
..	Kaitawa, Section 4, Block XI	1,807	,, ..	,, ..	..	..	..	..	..	,,
..	Kaitawa, Block XV	1,520	,, ..	,, ..	..	..	..	..	..	,,
..	Waiopehu, Sections 55, 58A, 79, 76, Blocks V and VI	190	,, ..	,, ..	Unknown	..	50	50	..	Proposed scenic reserve, for which purpose it is very suitable.
..	Gorge, Block V	25,200	,, ..	,, ..	..	..	..	..	..	Only suitable for scenic purposes.
..	Gorge, Section 374, Block III	250	,, ..	,, ..	..	..	..	..	..	,,
..	Ruahine, Blocks VIII, XIV; Umutoi, Blocks I, II, IV, V	28,800	,, ..	,, ..	..	..	..	..	..	Only valuable as forest reserve.
..	Pohangina, Blocks XI, XII, XV	3,400	,, ..	,, ..	..	..	..	..	..	,,
..	Pohangina, Blocks VIII, XIV	3,156	,, ..	Yes ..	..	2,000,000	..	..	..	Too rough to mill.
..	Pohangina, Block IV; Umutoi, Blocks X, XII, XIII, XIV	7,620	,, ..	,, ..	..	1,000,000	..	..	..	Too rough and inaccessible to mill.
..	Umutoi, Blocks II, III, V, VI, VIII, IX, XI ..	28,800	,, ..	No ..	..	..	..	..	..	Only suitable for forest reserve.
..	Pohangina, Section 48, Block VII	978	,, ..	Yes ..	2,923,157	10,000,000	310	..	..	First-class reserve for forest and scenic purposes.
..	Hautapu, Section 4, Block VII	62	,, ..	,, ..	..	500,000	..	..	..	First-class scenery reserve. Close to Utiku Railway-station.
..	Hautapu, Section 11, Block VII	89	,, ..	,, ..	..	700,000	..	..	..	
..	Hautapu, Section 41, Block IV	135	,, ..	,, ..	..	..	..	..	..	Sold by auction to Gardener Bros.
	Totals	938,951	..	..	3,673,157	41,480,000	3,433	123		

MARLBOROUGH LAND DISTRICT.

..	Rai and Opouri Reserve	21,190	19,590	Yes ..	15,300,750	90,000,000	500	300	..	
..	Wakamarina	4,070	4,050	,, ..	200,000	4,000,000	..	..	..	
	Totals	25,260	23,640	..	15,500,750	94,000,000	500	300		

NELSON LAND DISTRICT.

..	Wai-iti, Section 3, Block III	90	Yes ..	Yes ..	..	270,000	..	..	..	
..	,, ,, 4, ,, ,, ...	74	Partly ..	,, ..	..	132,000	30	..	..	
..	,, ,, 14, ,, ,, ...	88	,, ..	,, ..	..	216,000	15	..	..	
..	,, ,, 15, ,, ,, ...	109	Yes ..	,, ..	..	327,000	..	..	..	
..	,, ,, 6, ,, VII	160	Partly ..	,, ..	..	330,000	50	..	..	
..	,, ,, 7, ,, ,, ...	196	Yes ..	,, ..	..	588,000	..	..	..	

Details of State Forests—*continued.*

Reserve No.	Survey District.	Area.	Forest.		Milling-timber.		Area.			Remarks.
			If in Natural State.	If containing Milling-timber.	Felled and sold on Royalty.	Remaining.	Burnt.	Grassed.	Replanted.	
	NELSON LAND DISTRICT—*continued.*									
		Acres.			Sup. Ft.	Sup. Ft.	Acres.	Acres.	Acres.	
..	Wai-iti, Section 4, Block X	84	Yes ..	Yes ..	..	252,000	..	..	..	
..	,, ,, 5, ,, ,, ...	38	,, ..	,, ..	..	104,000	..	..	..	
..	,, ,, 6, ,, ,, ...	732	Partly ..	,, ..	..	1,643,000	150	..	..	
..	Gordon ,, 5, ,, XI	1,392	Yes ..	,, ..	..	3,840,000	..	..	..	
..	Wai-iti, ,, 9, ,, IX	103	,, ..	,, ..	..	309,000	..	..	..	
..	,, ,, 14, ,, ,, ...	73	,, ..	,, ..	..	216,000	..	..	..	
..	,, ,, 15, ,, ,, ...	103	,, ..	,, ..	..	309,000	..	..	..	
..	,, ,, 16, ,, ,, ...	58	,, ..	,, ..	..	174,000	..	..	..	
..	,, ,, 29, ,, ,, ...	91	Partly ..	,, ..	..	225,000	15	..	..	
..	,, ,, 30, ,, ,, ...	78	,, ..	,, ..	..	261,000	..	..	..	
..	,, ,, 31, ,, ,, ...	109	,, ..	,, ..	..	327,000	..	..	..	
..	,, ,, 10, ,, X	79	,, ..	,, ..	..	237,000	..	..	..	
..	,, ,, 11, ,, ,, ...	51	,, ..	,, ..	..	153,000	..	..	..	
..	,, ,, 17, ,, ,, ...	160	,, ..	,, ..	..	447,000	..	..	..	
..	,, ,, 33, ,, XI	191	,, ..	,, ..	..	573,000	..	..	..	
..	,, ,, 34, ,, ,, ...	101	,, ..	,, ..	..	300,000	..	..	..	
..	Whangamoa, Section 4, Block IV ..		,, ..	,, ..	..	3,450,000	150	..	..	
..	,, ,, 5, ,, V ..	1,920	Yes ..	,, ..	..	5,760,000	..	..	..	
..	,, ,, 2, ,, VIII ..		,, ..	,, ..	..	..	..	..	..	
..	Takaka, Sections 5 and 6, Block XI	..	,, ..	,, ..	..	6,850,000	..	..	..	
..	Kaiteriteri, Blocks VII, XI, XII, XIV, XV ..	..	,, ..	,, ..	..	..	..	..	..	
	Totals	8,900	..	..	..	27,393,000	310			
	WESTLAND LAND DISTRICT.									
208	Mahinapua, Block XII	376	No ..	Yes ..	Unknown	10,000	..	..	..	
212	Otira, Block VI	40	,, ..	No ..	,,	Unknown	..	..	..	
213	Otira, Block VII	40	,, ..	,, ..	,,	,,	..	..	..	
	Totals	456	..	..	..	10,000				
	CANTERBURY LAND DISTRICT.									
3262	Ashley County	6,000	Yes ..	No ..	..	..	Partly ..	..	..	
3263	,, ...	7,500	,, ..	,, ..	..	..	,, ..	..	..	
3264	,, ...	1,100	,, ..	,, ..	..	..	,, ..	..	..	
3265	,, ...	10,000	,, ..	,, ..	..	..	..	..	..	
3266	,, ...	2,000	,, ..	,, ..	..	..	..	..	..	
3267	,, ...	800	,, ..	,, ..	..	..	..	..	..	

3270	Ashley County	..	..	..	..	..	2,400	Yes	..	Yes	..	..	1,000,000	..	..	..
3271	"	..	..	..	..	..	450	"	..	No	..	..	..	Partly	..	..
3272	"	..	..	..	..	..	7,600	"	..	Yes	..	..	Several million feet	..	..	..
3273	"	..	..	..	..	..	3,300	"	..	No	..	..	..	Mostly	..	..
3268	Selwyn County		..	..	..	..	10,000	"	..	"	..	..	..	Partly	..	..
3269	"		..	..	..	..	1,500	"	..	"	..	..	..	..	..	..
3274	"		..	..	..	..	6,600	"	..	"	..	..	..	Partly	..	..
3275	"		..	..	..	..	2,800	"	..	"	..	..	..	..	..	..
3276	"		..	..	..	..	2,300	"	..	"	..	..	..	..	..	..
3277	"		..	..	..	..	3,300	"	..	"	..	..	..	..	..	..
3278	"		..	..	..	..	1,200	"	..	"	..	..	..	..	..	..
3279	"		..	..	..	..	4,000	"	..	"	..	..	..	..	..	..
3280	"		..	..	..	..	1,300	"	..	"	..	..	..	..	..	..
3281	"		..	..	..	..	17,000	"	..	A little		..	Unknown	..	..	..
3282	"		..	..	..	..	4,400	"	..	"		..	"	..	..	..
3283	"		..	..	..	..	14,500	"	..	"		..	"	..	..	..
3284	"		..	..	..	..	14,000	"	..	"		..	"	..	..	..
3285	"		..	..	..	..	7,000	"	..	"		..	"	Partly	..	..
3286	"		..	..	..	..	13,000	"	..	No	..	..	..	"	..	..
3287	"		..	..	..	..	2,300	"	..	"	..	..	..	..	..	..
3288	"		..	..	..	..	6,500	"	..	"	..	..	..	..	..	..
3289	"		..	..	..	..	500	"	..	"	..	..	..	..	..	..
3290	"		..	..	..	..	600	"	..	A little		..	Unknown	..	..	..
3291	"		..	..	..	..	300	"	..	"		..	"	..	..	..
3292	"		..	..	..	..	1,200	"	..	Possibly		..	"	..	..	..
3293	"		..	..	..	..	200	"	..	"		..	"	..	..	..
3294	"		..	..	..	..	3,800	"	..	No	..	..	..	..	..	..
3295	"		..	..	..	..	300	"	..	"	..	..	..	..	..	..
3296	"		..	..	..	..	50	"	..	"	..	..	..	..	..	..
3297	"		..	..	..	..	25	"	..	"	..	..	..	..	..	..
3298	"		..	..	..	..	16,000	"	..	"	..	..	..	Partly	..	Partly ..
3299	"		..	..	..	..	6,500	"	..	"	..	..	..	"	..	" ..
3300	"		..	..	..	..	2,000	"	..	"	..	..	..	..	..	..
3301	"		..	..	..	..	500	"	..	"	..	..	..	..	..	..
3302	"		..	..	..	..	3,500	"	..	"	..	..	..	..	..	..
3303	"		..	..	..	..	500	"	..	"	..	..	..	..	..	..
3304	"		..	..	..	..	700	"	..	"	..	..	..	..	..	..
3305	"		..	..	..	..	300	"	..	"	..	..	..	..	..	..
3306	"		..	..	..	..	15,000	"	..	"	..	..	..	Partly	..	..
3307	"		..	..	..	..	600	"	..	"	..	..	..	..	..	..
3308	"		..	..	..	..	1,400	"	..	"	..	..	..	..	..	..
3309	"		..	..	..	..	1,100	"	..	Possibly		..	Unknown	Partly	..	..
3443	"		..	..	..	..	54	"	..	No	..	..	..	..	..	..
3444	"		..	..	..	..	74	"	..	"	..	..	..	..	..	..
3445	"		..	..	..	..	285	"	..	"	..	..	..	..	..	..
3310	Ashburton County		..	..	..	..	9,000	"	..	Yes	..	..	Unknown	Slightly	..	..
3311	"		..	..	..	..	350	"	..	"	..	..	"	"	..	..
3312	"		..	..	..	..	100	"	..	Very little		..	"	"	..	..
3313	"		..	..	..	..	500	"	..	Yes	..	..	"	"	..	..
3314	"		..	..	..	..	660	"	..	Very little		..	"	"	..	..
3315	"		..	..	..	..	800	"	..	"		..	"	"	..	..
3316	"		..	..	..	..	200	"	..	"		..	"	"	..	..

Details of State Forests—*continued.*

Reserve No.	Survey District.	Area.	Forest.		Milling-timber.		Area.			Remarks.
			If in Natural State.	If containing Milling-timber.	Felled and sold on Royalty.	Remaining.	Burnt.	Grassed.	Replanted.	
		CANTERBURY LAND DISTRICT—*continued.*								
		Acres.			Sup. Ft.	Sup. Ft.	Acres.	Acres.	Acres.	
3317	Ashburton County	2,100	Yes	Very little	..	Unknown	Slightly	..	..	
3318	,,	300	,,	Possibly	..	,,	,,	..	..	
3319	,,	1,800	,,	,,	..	,,	,,	..	..	
3320	,,	800	,,	Partly	..	,,	,,	..	..	
3321	,,	1,000	,,	,,	..	,,	,,	..	..	
3322	,,	400	,,	,,	..	,,	,,	..	..	
3323	,,	400	,,	,,	..	,,	,,	..	..	
3324	,,	300	,,	,,	..	,,	,,	..	..	
3325	,,	1,200	,,	,,	..	,,	,,	..	..	
3326	,,	250	,,	,,	..	,,	,,	..	..	
3327	,,	2,600	,,	,,	..	,,	,,	..	..	
3328	,,	2,600	,,	,,	..	,,	,,	..	..	
3329	,,	1,300	,,	,,	..	,,	,,	..	..	
3244	Mackenzie County	48	,,	Yes	..	,,	..	..	..	
3245	,,	13	,,	No	..	..	..	..	..	
3343	,,	5,100	,,	Partly	..	Unknown	Slightly	..	..	
3344	,,	9,000	,,	,,	..	,,	,,	..	..	
3345	,,	2,500	,,	,,	..	,,	,,	..	..	
3348	,,	150	,,	A little	..	,,	,,	..	..	
3349	,,	200	,,	,,	..	,,	,,	..	..	
3350	,,	350	,,	,,	..	,,	,,	..	..	
3543	Geraldine County	207	,,	No	..	..	..	..	..	
3346	Waimate County	165	,,	A little	..	Unknown	Slightly	..	..	
3347	,,	450	,,	,,	..	,,	,,	..	..	
3340	Waitaki County	2,800	,,	,,	..	,,	,,	..	..	
3341	,,	3,600	,,	,,	..	,,	,,	..	..	
3342	,,	11,000	,,	,,	..	,,	,,	..	..	
	Total	270,631								
		OTAGO LAND DISTRICT.								
..	Aspiring and Wilkin, Section 3330	3,800	Yes	A little	..	100,000	..	..	..	
..	Wilkin, Section 3331	3,100	,,	,,	..	100,000	..	..	..	
..	Young, Haast, Wilkin, and McKerrow Section 3332	47,600	,,	,,	50,000	1,000,000	1,000	..	..	
..	Haast and McKerrow, Section 3333	11,000	,,	,,	150,000	1,500,000	..	..	..	
..	McKerrow, Section 3334	3,300	,,	No	..	..	..	..	..	
..	Hunter, Section 3335	14,100	,,	,,	..	..	..	..	..	

..	Hunter, Section 3336	8,200	Yes ..	No ..	..		..	..	..	
..	Stafford, Section 3337	1,000	,, ..	Yes ..	..	1,000,000	..	..	..	
..	Hunter and Stafford, Section 3338	7,000	,, ..	A little	..		..	..	..	
..	Hunter and Stafford, Section 3339	2,000	,, ..	,,	..					
	Totals	91,100	..	..	200,000	3,700,000	1,000			

SOUTHLAND LAND DISTRICT.

..	Aparima	14,800	Yes ..	Yes ..	8,023,000	9,078,000	..	..	..	More birch and less red-pine in remaining milling-timber.
..	Oreti	340	,, ..	,, ..	1,040,000	730,000	..	..	..	
..	Campbelltown	3,600	,, ..	,, ..	5,013,200	..	..	..	..	
..	Centre Hill	6,400	Partly ..	,, ..	..	1,000,000	..	..	..	
..	Eyre	50,000	,, ..	,, ..	..	2,000,000	..	..	..	
..	Forest Hill	2,700	,, ..	,, ..	3,149,900	1,850,000	..	..	..	
..	Hokonui	3,750	,, ..	,, ..	890,800	1,927,000	..	..	..	
..	Invercargill	284	,, ..	,, ..	617,400	..	..	..	..	
..	Jacob's River	20,950	,, ..	,, ..	9,897,900	13,640,800	..	..	..	More birch and less red-pine in remaining milling-timber.
..	Longwood	52,800	,, ..	,, ..	29,718,100	22,247,900	..	..	..	Ditto.
..	Mabel	740	,, ..	No ..	3,358,700	..	150	..	..	
..	New River	1,470	,, ..	,, ..	2,382,900	..	200	..	..	
..	Oteramika	9,650	,, ..	Yes ..	43,605,000	..	..	..	..	
..	Stewart Island	232,450	Yes ..	,, ..	..	1,500,000	..	..	..	No black-pine.
..	Takitimo	29,000	,, ..	,, ..	..	2,000,000	..	..	..	
..	Waiau	6,300	,, ..	,, ..	..	2,500,000	..	..	..	
..	Waimumu	470	,, ..	No ..	..	..	..	..	..	
..	Wairaki	4,000	,, ..	Yes ..	..	1,250,000	..	..	..	
..	Wairio	4,700	,, ..	,, ..	..	3,000,000	..	..	..	
..	Winton	746	Partly	No ..	1,082,900	..	..	..	..	
	Totals	445,150	..	..	108,779,800	62,723,700	350			

PART II.

SUMMARY OF STATE FORESTS SET APART FOR AFFORESTATION, UNDER THE CONTROL OF THE CHIEF FORESTER.

Land District.	No.	Area of Reserves.	Area planted in 1905-6.	Total area planted to Date.
		A. R. P.	A. R. P.	
Auckland	5	13,323 0 0	978 3 0	3,131 0 0
Marlborough	1	881 0 0	130 0 0	192 2 0
Canterbury	2	806 0 0	32 2 0	491 3 0
Otago	4	2,490 0 0	294 1 0	1,678 3 0
Total	12	17,500 0 0	1,435 2 0	5,494 0 0

REPORT BY CHIEF FORESTER.

In submitting my (tenth) annual report for the year ending the 31st March, 1906, I have again to record a successful year's work at all stations. The results of operations are naturally largely influenced by the climatic conditions experienced, although a large share of credit is due to the officers in charge, as well as the staff generally.

From the summaries below, it will be observed that during the ten years, since forestry operations were established, over thirty-two million trees have been raised in nurseries and plantations.

Last year's crop in the nurseries totalled over eight million, while the nurseries now contain nearly fifteen million trees of one, two, and three years old.

During the past year over three and a quarter million trees were planted permanently on an area of 1,435½ acres, bringing the total area planted to date to 5,494 acres, on which are growing nearly eleven and three quarter million trees.

The following tables show details of the year's operations, while detailed reports of each nursery and plantation, schedules of trees grown, expenditure, and values are appended :—

NUMBER OF TREES GROWN IN NURSERIES AND PLANTATIONS, AND AREA PLANTED, FROM SEPTEMBER, 1896, TO 31ST MARCH, 1906.

—	Number in Nurseries, 31st March, 1906	Values.	Number raised in Nurseries and Plantations, 1896 to 1906.	Values.	Number raised in Nurseries and Plantations, 1905-6.	Number planted in 1905-6.	Area planted in 1905-6.	Total Number in Plantations, 31st March, 1906.	Total Area planted to 31st March, 1906.
		£ s. d.		£ s. d.			Acres		Acres.
Eweburn Nursery	945,950	1,672 13 9	1,694,582	3,861 0 5	238,250	..	..	..	..
Tapanui Nursery	2,565,675	4,008 13 6	6,635,705	17,556 5 11	742,625	..	..	..	..
Rotorua Nursery	7,881,400	10,694 7 6	17,586,971	32,203 18 11	4,619,400	..	..	..	..
Starborough Nursery	1,533,700	2,428 17 6	2,165,375	4,213 5 3	900,200	..	..	..	..
Hanmer Springs Nursery	1,395,840	2,268 5 2	1,378,000	1,402 0 0	750,000	..	..	..	..
Ruatangata Nursery	652,200	1,217 3 0	934,484	2,091 13 4	483,200	..	..	..	..
Naseby Plantation	..	..	..	..	..	19,650	..	360,185	132½
Gimmerburn Plantation	..	..	..	..	..	129,100	16	223,775	76¼
Dusky Hill Plantation	..	..	396,700	..	21,950	70,075	..	2,002,583	805¼
Conical Hills Plantation	..	..	605,296	..	239,600	623,000	278¼	2,074,171	664¾
Raincliff Plantation	..	..	..	..	..	..	..	50,000	206¾
Hanmer Springs Plantation	..	..	374,200	..	70,900	52,735	32½	788,270	285
Dumgree Plantation	..	..	..	..	..	365,250	130	536,086	192½
Whakarewarewa Plantation	..	..	81,680	..	..	967,983	435¾	2,408,186	1,401½
Waiotapu Plantation	..	..	158,681	..	..	876,525	322	2,814,179	1,215½
Kaingaroa Plantation	..	..	..	..	..	..	..	44,275	21
Ruatangata Plantation	..	..	..	..	..	..	..	7,224	22
Puhipuhi Plantation	..	..	12,600	..	12,600	150,460	221	274,560	471
Government domains, reserves, &c.	..	..	..	..	..	..	..	133,632	..
Totals ..	14,974,765	22,290 0 5	32,024,274	61,328 3 10	8,078,725	3,254,778	1,435½	11,717,126	5,494

Summary of Expenditures and Values.

		Expenditure for Year ending 31st March, 1906.	Expenditure from September, 1896, to 31st March, 1906.	Value of Trees, Improvements, &c., for Year ending 31st March, 1906.	Value of Trees, Improvements, &c., from September, 1896, to 31st March, 1906.
		£ s. d.	£ s. d.	£ s. d.	£ s. d.
Amount at 31st March, 1905 ..	£70,300 3 5				
Eweburn Nursery	.. ..	895 4 10	7,925 18 9	2,552 17 3	6,340 10 7
Tapanui Nursery	.. ..	1,516 17 6	11,867 13 4	7,234 16 0	13,083 7 2
Rotorua Nursery	.. ..	3,827 12 4	17,763 7 2	18,271 15 0	22,690 0 1
Starborough Nursery ..	.. ..	1,362 11 6	6,523 8 10	4,587 17 11	8,230 13 0
Hanmer Springs Nursery ..	.. ..	485 14 0	1,528 8 0	2,441 12 10	3,034 10 6
Ruatangata Nursery	.. ..	1,304 13 11	2,891 2 10	2,475 11 7	3,553 8 2
Naseby Plantation	.. ..	87 1 9	1,756 18 11	249 0 1	3,524 17 7
Gimmerburn Plantation ..	.. ..	309 19 2	997 3 3	851 9 8	2,064 10 3
Dusky Hill Plantation ..	.. ..	487 6 0	8,017 4 4	1,410 12 11	18,930 2 1
Conical Hills Plantation ..	.. ..	1,872 16 11	5,500 10 3	4,350 18 3	11,664 4 4
Raincliff Plantation	.. ..	..	1,104 12 5	61 15 4	1,367 14 11
Hanmer Springs Plantation ..	.. ..	443 7 9	2,567 9 3	1,314 19 2	6,079 13 7
Dumgree Plantation	.. ..	1,349 19 10	6,240 15 0	3,423 5 11	9,245 8 6
Whakarewarewa Plantation ..	.. ..	2,755 15 2	7,856 19 11	6,819 18 9	16,629 4 11
Waiotapu Plantation ..	.. ..	684 12 4	3,157 11 3	6,424 13 0	17,618 19 4
Kaingaroa Plains Plantation ..	.. ..	4 0 0	322 13 0	26 19 9	601 13 7
Puhipuhi Plantation ..	.. ..	1,132 5 2	1,866 0 1	1,594 1 0	2,810 4 7
Wellington Nursery (proposed)	.. ..	..	11 3 11	..	..
Kurow Nursery	.. ..	750 0 0	750 0 0	750 0 0	750 0 0
Naseby Domain	.. ..	..	10 0 0	..	10 0 0
Albury Plantation	.. ..	..	72 4 11	..	72 4 11
Torea Neck Reserve	.. ..	..	1 7 6	..	1 7 6
Waitahuna Plantation ..	.. ..	39 9 7	39 9 7	39 9 7	39 9 7
Supervision thermal reserves, &c.	.. ..	..	336 16 9	..	..
Clerical assistance	.. ..	75 0 0	405 0 0	..	..
Contingencies: Typewriters, photographic material, telephone, stationery, books on forestry, fidelity insurances, travelling-expenses, &c.		94 18 9	265 10 8	..	45 17 0
	£ s. d.				
Value at 31st March, 1905 ..	111,799 17 6				
Less value of trees and horse-feed in stock at 31st March, 1905, also tools written off during the year	28,293 9 4			64,881 14 0	
	£83,506 8 2	..	..	83,506 8 2	
Totals	.. ..	19,479 6 6	89,779 9 11	148,388 2 2	148,388 2 2

Minimum and Maximum Readings of Thermometer (Fahrenheit) and Rainfall at Various Stations for the Year.

	Temperature.		Rainfall.	
	Minimum.	Maximum.	Inches.	Number of Days.
	Deg.	Deg.		
Eweburn Nursery	13	81	17·41	113
Tapanui Nursery	21	90	43·95	119
Hanmer Springs Nursery	13	91	62·18	164
Starborough Nursery	20	96	33·14	115
Rotorua Nursery	24	94	49·67	169
Ruatangata Nursery	26	89	52·61	157
Waiotapu Plantation	16	86	46·63	185

THE AVERAGE NUMBER OF WORKMEN EMPLOYED DAILY AT THE VARIOUS NURSERIES AND PLANTATIONS DURING THE YEAR 1905–6.

—	Free Labour.	Prison Labour.	—	Free Labour.	Prison Labour.
Eweburn Nursery ...	5·33	...	Dusky Hill Plantation ...	4·50	...
Tapanui Nursery	12·25	...	Conical Hills Plantation ...	17·75	...
Rotorua Nursery	27·16	...	Whakarewarewa Plantation	19·10	14·19
Hanmer Springs Nursery ...	4·50	...	Waiotapu Plantation ...	2·51	42·56
Starborough Nursery ...	8·83	...	Hanmer Springs Plantation	2·00	11·58
Ruatangata Nursery ...	11·00	...	Dumgree Plantation ...	11·12	27·06
Gimmerburn Reserve ...	1·80	...	Puhipuhi Plantation ...	9·58	...
Naseby Survey Plantation ...	0·59	...	Waitahuna Plantation (two months only)	0·44	...
				138·46	95·39

OUTPUT OF TREES FROM NURSERIES DURING YEAR 1905–6.

	Number.	Value. £ s. d.
Eweburn	157,400	410 2 0
Tapanui	713,827	2,110 17 5
Hanmer Springs	35,210	61 4 7
Starborough	371,100	1,252 1 3
Rotorua	2,386,931	6,281 13 8
Ruatangata	158,660	408 15 2
	3,823,128	£10,524 14 1

COST OF DIGGING PITS AND TREE-PLANTING AT PLANTATIONS.

Station.	Digging Pits. Per 1,000. £ s. d.	Tree-planting. Per 1,000. £ s. d.
Dumgree Plantation	2 10 6¼	1 2 1¾
Dusky Hill Plantation	0 19 8½	0 18 3½
Conical Hills Plantation	1 6 8½	0 15 1
Naseby Plantation	...	0 16 8
Gimmerburn Plantation	0 11 6¾	0 17 7½
Whakarewarewa Plantation	0 15 3	0 8 11
Puhipuhi Plantation	0 16 6	0 15 0

LINING OUT TREES, COST OF, AT NURSERIES.

	Per 1,000. s. d.
Eweburn	4 7¼
Tapanui	2 9½
Hanmer Springs	3 7¼
Starborough	2 11½
Rotorua	1 9
Ruatangata	4 8

ESTABLISHMENT OF NURSERY AND PLANTATION IN KUROW DISTRICT, OTAGO.

As indicated in last year's report, proposals were submitted for the acquisition of a small area for nursery purposes near Kurow. This site of 45 acres has since been acquired, and operations commenced thereon. The area selected possesses all desirable advantages for an ideal nursery—black loam overlaying a strata of porous clay, gradually merging into shingle, shelter from prevailing winds, pure water-supply at a considerable elevation, and convenient to a railway-station.

The buildings consist of dwellinghouse, men's quarters, stables, and implement-sheds, and although these are somewhat old and dilapidated, are capable of being made suitable for present requirements.

Existing fencing is old and worthless, and will require complete renewal at an early date.

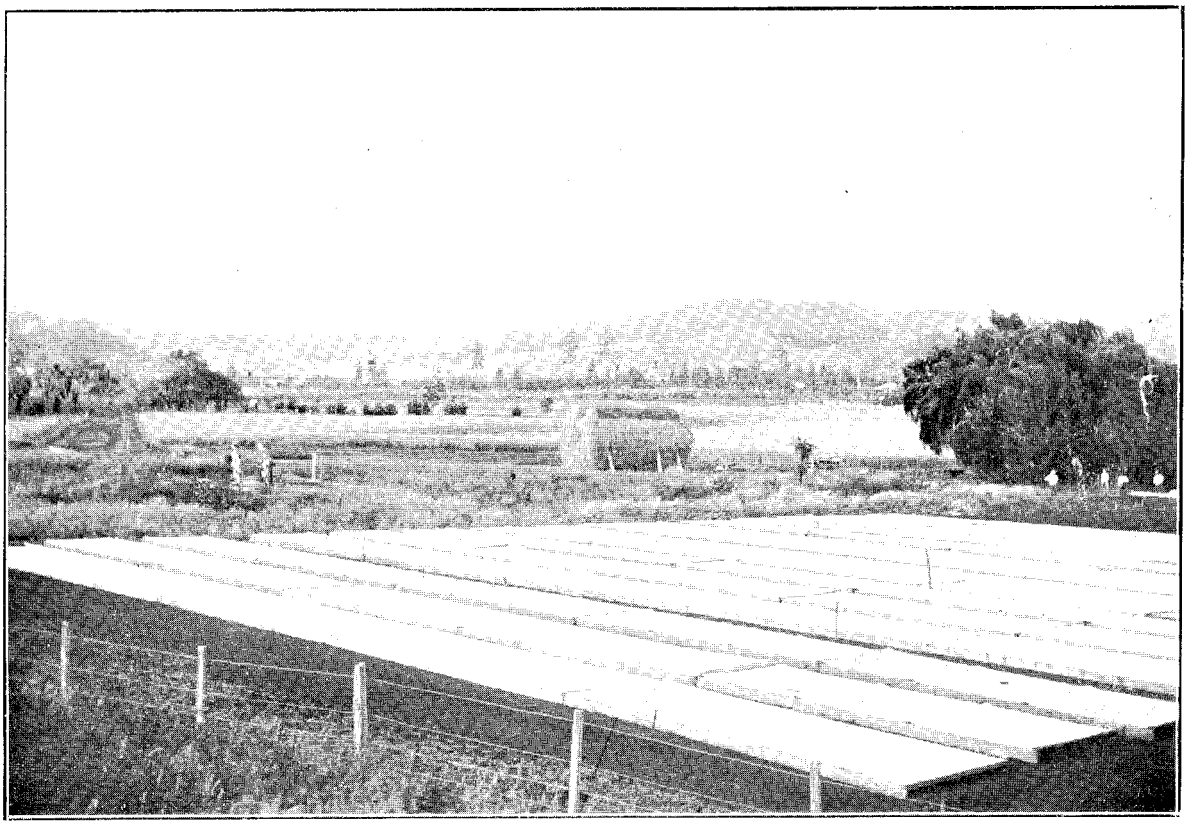
The total cost of above was £750, which sum is considered well within the estimated value.

As last season's tree-seed crops at all stations were much in excess of anticipations, it is proposed to transfer about half a million seedlings to Kurow Nursery during the ensuing spring. These will be planted in nursery-lines for one season, and then sent to the plantation, thus giving this station the advantage of a year's start.

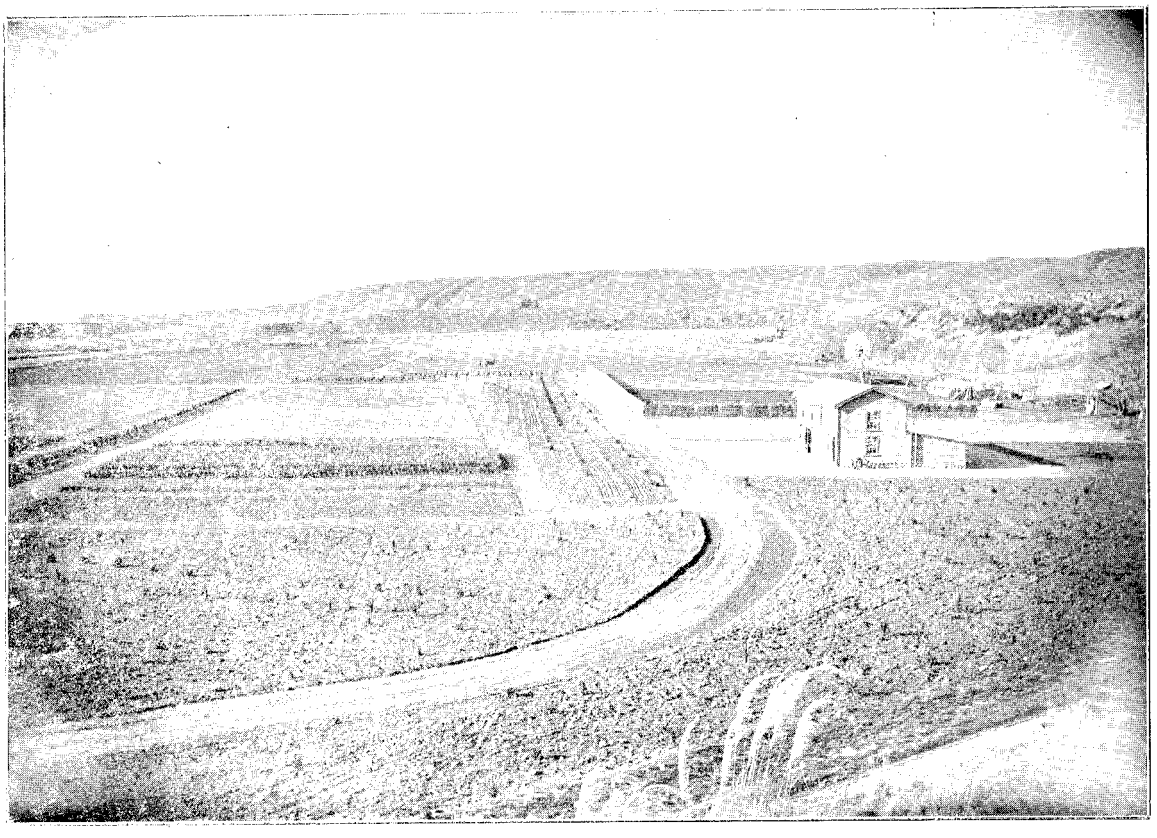
PROPOSED OPERATIONS IN CENTRAL CANTERBURY.

For a number of years the Mackenzie County Council have been planting annually considerable areas with forest trees, the necessary funds being provided by rentals from plantation reserves throughout the county.

The work done by this Council, under the energetic supervision of the Engineer, is of considerable importance both as regards the actual value of the plantations (now approaching the "pole stage") as well as the demonstration of which trees are suitable for extensive plantings for forestry purposes hereafter. Certain difficulties, however, have mitigated against carrying on continuous



SEED-BEDS, RUATANGATA NURSERY.



STARBOROUGH NURSERY IN 1902.

systematic forestry by the Council, the chief being uncertainty of supply; this being dependent on private nurserymen. There is also the disadvantage of obtaining trees from widely diverse soils and climates—Invercargill, Dunedin, Ashburton, and Christchurch—for planting on poor, dry, high-lying inland localities, subject to intense frost as well as hot drying winds.

The Council's work being thus considerably hampered, it was felt that further planting operations should be undertaken by this Department, and the following letter was accordingly addressed to the Hon. Minister of Lands:—

"SIR,—I have the honour, by direction of the Mackenzie County Council, to respectfully bring under your notice the advisability of establishing a forest-tree nursery in this county—say, at Silverstream.

"My Council would point out that the Mackenzie County is exceedingly favourably adapted to the growing of forest trees, and at present, with the exception of a few plantations, is almost treeless. They would further point out that there are numerous reserves of Crown lands laid aside specially for tree-planting. I am to say that the Council hope you will give this matter your favourable consideration.—I have, &c., "R. L. BANKS,

"The Hon. Minister of Lands, Wellington." Clerk to Council."

The reply to above being favourable, instructions were issued to report on the scheme and submit proposals for the acquisition of a suitable block of land for nursery purposes. Two sites have been inspected—one close to Fairlie, and another some seven miles distant, on the main Mount Cook Road—but neither are deemed altogether desirable. Another area has, however, been under consideration, and no doubt before next report is issued operations will be in progress.

CHANGES IN THE STAFF.

Owing to the lamented deaths of Mr. James Henderson, Forester at Waiotapu, and Mr. Manuel Stark, Nurseryman in Charge at Hanmer Springs, several changes were rendered necessary.

Mr. William Cromb, first Assistant at Starborough Nursery, took charge at Hanmer Springs, and was afterwards transferred to Starborough as Nurseryman in Charge, *vice* Mr. N. Craig, appointed to the position of Nurseryman in Charge at Kurow. Mr. T. B. Curle, Assistant Forester at Waiotapu, succeeded Mr. Henderson as Forester in Charge at that station for some months before being promoted to Officer in Charge at Hanmer Springs, whilst Mr. Roderick McRae, from Conical Hills Plantation, succeeded Mr. Curle at Waiotapu.

REGENERATION OF NATIVE FORESTS.

Last year's report contained proposals for the perpetuation of our kauri forests, but so far the information sought from the Auckland Commissioner has not been received.

During an extended visit to Westland and Southern Nelson particular attention was given to the possibility of regenerating the silver-pine (*Dacrydium Colensoi*—erroneously called *D. Westlandicum* in Kirk's "Forest Flora")—and yellow silver-pine (*Dacrydium intermedium*). As is well known, these timbers are largely used for railway-sleepers and telegraph-poles, for which purpose they are unrivalled for durability.

In Westland the sawmillers and sleeper-getters do not seem to distinguish between silver-pine and yellow silver-pine, both species being utilised for similar purposes. The former extends from West Wanganui Inlet, Nelson, southwards to Martin's Bay, in Otago, and from sea-level to 3,000 ft. altitude; although the largest trees seem to be found at comparatively low altitudes and on swampy, sour land, which is absolutely unfit for any other purpose than the growth of this valuable timber-tree.

It is significant that, during a full month's constant travelling in Westland, I could not find a single silver-pine tree large enough for cutting as a fencing-post, although inquiries were made from the Commissioner and from the Crown Lands Rangers who accompanied me on my visit.

Sleeper-cutters seem to have practically cut out the whole of this timber within reasonable distance of horse-tracks or roads, and in doing so have destroyed millions of young seedling trees in "snigging" or in squaring posts or sleepers, and then putting a match to the tops and chips.

The visitor to a West Coast forest cannot fail to observe myriads of seedling trees of all kinds, which germinate in the vicinity of a recently felled tree. So soon as an opening is made in the forest by removal of trees, thus giving the necessary light for germination, countless numbers of seedlings subsequently appear. Here we find Nature renewing the forest with a lavish hand, while her efforts are frustrated by fire and stock.

The whole of the West Coast Crown lands, whether forest or open, are available as a cattle-run on the payment of a small fee to the local bodies. There are a number of scenic reserves containing magnificent specimens of rimus, kahikatea, matai, &c., in addition to the usual undergrowth, shrubs and ferns; and, although heavy penalties are enforced for the destruction of any plant, shrub, or tree by man, cattle have free access to wander where they please. In the Official Year-book, 1904, page 643, the Commissioner of Crown Lands says, "All over the coastal lands, along the slopes of the lower hills, and in the bottoms of the valleys large herds of cattle are bred and fattened on the dense undergrowth of the forest."

Being in the goldfields area, the Commissioner of Crown Lands has no jurisdiction over ordinary forest lands, the licenses to cut timber being granted by the Warden, while few State forests exist in the district.

In a recent parliamentary paper (C.-6, of 1905) a report was furnished on the "Timber Industry of New Zealand." From this report it will be seen that there are fifty-one sawmills working in Westland, employing 609 hands, and cutting 37,250,000 ft. of timber—chiefly red, white, and silver pine—per annum. No information, however, is given as to the number of sleeper-getters, nor the approximate quantity of timber thus utilised. In 1904, however, 857,777 silver-pine sleepers were cut. (Year-book, 1904.)

It is stated that "three-fourths of Westland is untouched as regards timber," and that the total quantity available both on private and Crown lands is 6,776,300,000 superficial feet, covering an area of 2,183,358 acres, or an average of 3,104 superficial feet per acre. Particulars as to the southern portion of Nelson are not at present available.

It must be remembered that a very large proportion of the West Coast is very inaccessible—narrow valleys with steep, shingly hillsides—from whence it is impossible to remove timber at remunerative rates; while as the mountains are ascended the timber decreases in size, and over 4,000 ft., there seems to be no arboreal vegetation.

In these deep valleys, and on the lands above 2,000 ft. altitude, it would be a fatal mistake to allow timber to be removed. It is not the actual removal of mature trees which is to be feared, but the wholesale destruction that inevitably follows. In felling trees the tops and branches are left to rot or burn, to remove the timber tracks are necessarily opened out, and are made use of by cattle which destroy and keep down undergrowth, the thin coating of vegetable deposit is gradually washed away, and in time nothing is left but barren hillsides, from which the rain-water pours off to swell streams and rivers, with disastrous effects to the lower valleys.

None the less important is the clearing of forests along the banks of rivers, as is at present proceeding north of Inangahua Junction, on the Buller River. Here it is evident that the usual chain-reserve regulation is being entirely disregarded, destroying both the magnificent scenery and the natural protection of river-banks against erosion during floods. There is also grave danger to bridges by an accumulation of logs and other *débris* against piles or cylinders, whilst at the mouth of the river (where dredging operations are necessary to keep the bar open) a considerable amount of time and money is annually expended in removing timber brought down from the cleared flats along river-banks.

While on this subject it may not be out of place to draw attention to the disastrous results which will eventually follow the clearing of blackberry along many of the river-banks of Westland, Nelson, and Marlborough. Under the Noxious Weeds Act settlers are compelled to clear their land of this pest; but as in many cases it has entirely supplanted the natvie vegetation as a protective covering to the banks of streams and rivers, its total eradication will certainly be followed by the loss of valuable lands, while much labour and heavy expenditure will be necessary to prevent further encroachment.

From the foregoing the general conclusions may be summarised:—

(1.) Silver and yellow pine of marketable dimensions are rapidly being cut out, except in (at present) inaccessible situations.

(2.) These pines—the most lasting and durable of all known pines—are being converted into sleepers to the number of at least one million annually, while large quantities are being utilised for other works.

(3.) In recently cut-out areas seedlings are appearing in countless numbers, but owing to fire and stock the majority of these perish.

(4.) That lands on which these pines are chiefly found is absolutely worthless for other purposes.

(5.) That the sources of rivers and streams should be protected from operations by the sleeper-getter.

(6.) Owing to the non-observance of the law in regard to chain reserves along rivers, irreparable damage is being done.

(7.) Only three small timber areas have been declared State forests in Westland, consequently the Conservator of Forests has little control.

The question to be considered is, whether the cut-out forest lands of the West Coast are to be conserved under proper regulations with the object of securing a continuous supply of timber for all time, or are they to remain in their present state—merely as cattle-runs?

Delay in deciding this important matter is fatal to successful results, in this way: Mature trees which supply the necessary seed for the perpetuation of the forest are being rapidly cut out, and it will be too late to think of conserving with a view to natural reproduction when seed-bearing parent trees are all removed, unless transplanting of seedlings is resorted to—an exceedingly costly method compared with natural regeneration.

It is premature to submit proposals for conservation until the main issue is decided, and I earnestly urge that due consideration will be given this important subject an an early date.

Plantation Reserves.

In previous reports (1902–3 and 1903–4) attention was drawn to the necessity for setting aside or acquiring lands throughout the colony for plantation purposes.

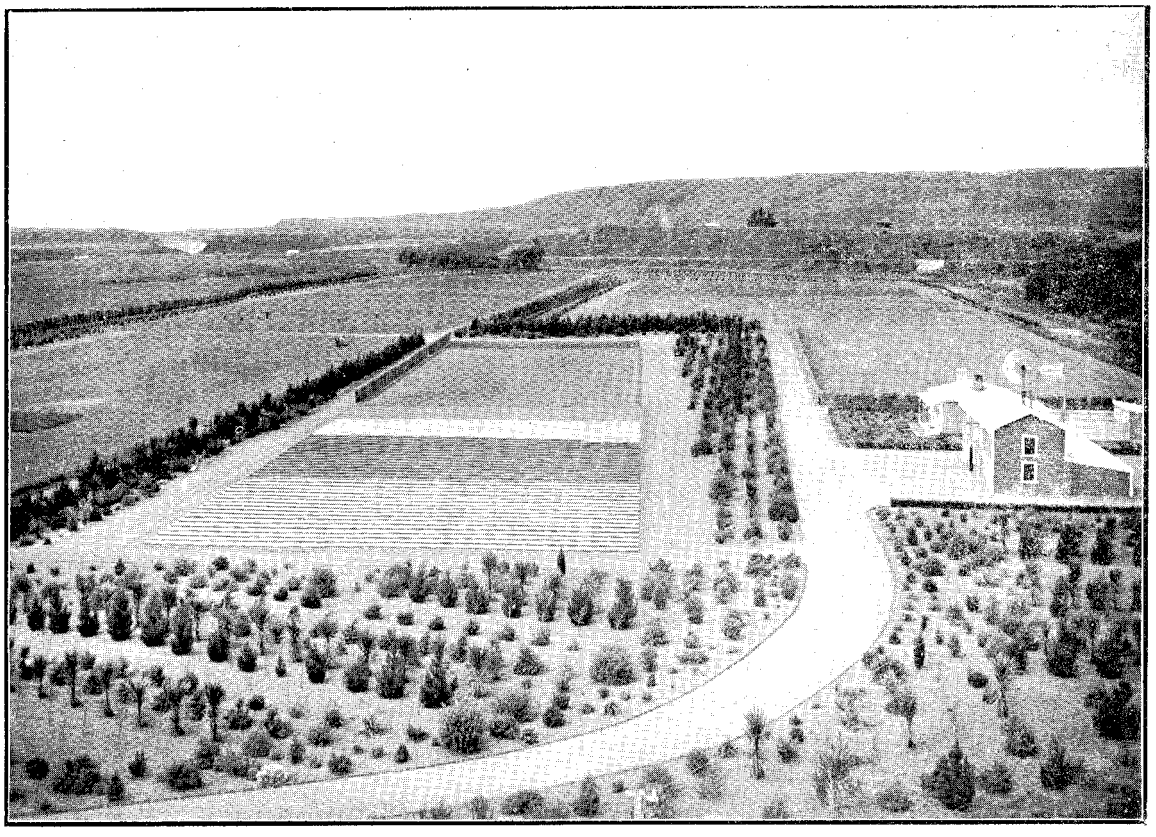
Every year the demand for land increases, and unless Crown lands are reserved for this purpose in the near future plantation-work must cease in many portions of the colony where nurseries are already established.

In Tapanui district the Department propose resuming four small grazing-runs adjoining Conical Hills Plantation. The total area is 2,622 acres 2 roods 11 poles, while the cost of resumption will be about £750. This will be a sufficient area to maintain the present rate of planting for from six to eight years.

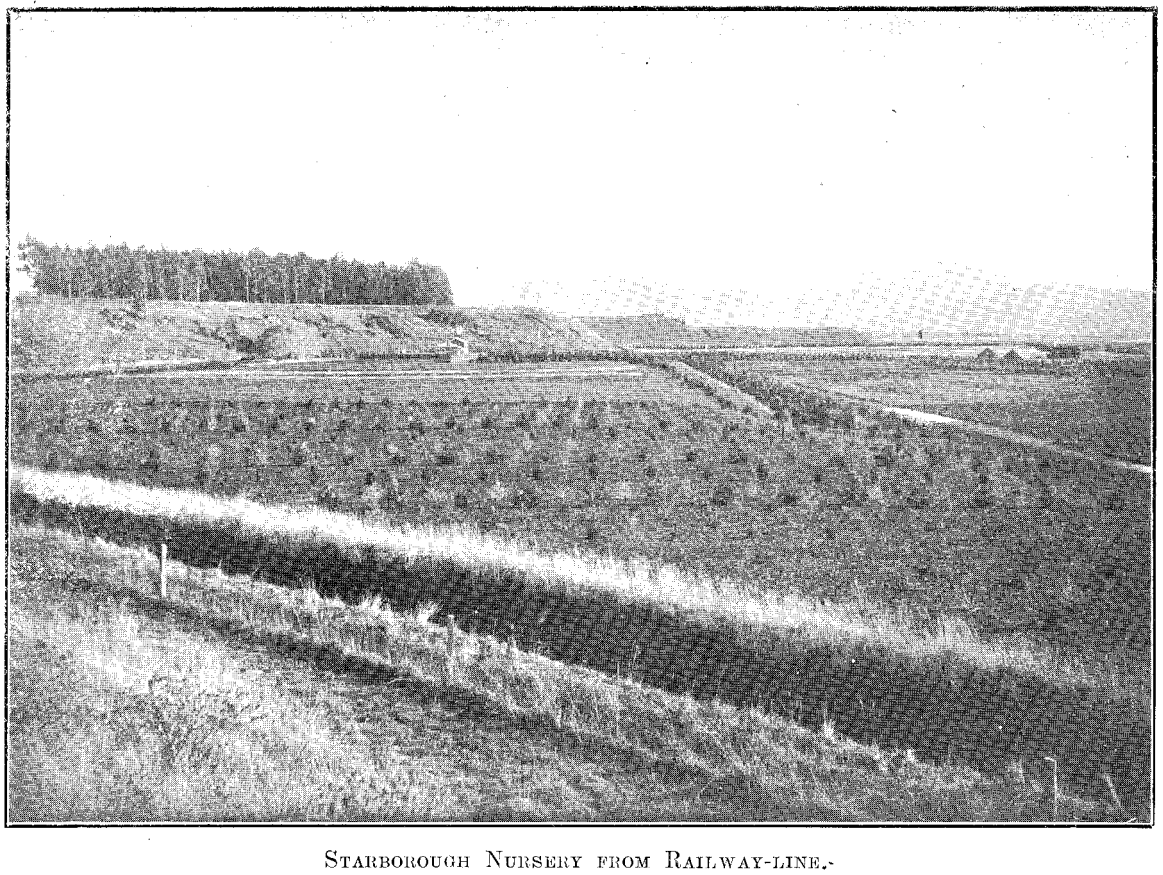
At Maniototo there are only 500 acres available for planting, the remaining numerous plantation reserves being merely narrow strips of land fit for shelter purposes only.

In the Kurow district (where operations are already in progress) there is no land available for planting, but the question of resuming Crown lands now under lease is being considered.

This year's operations will complete the present area at Hanmer Springs, and during the summer it is proposed to remove the present prison-camp to a 500-acre block of Crown lands some two miles further on—adjacent to Jollie's Pass. There are ample and suitable Crown lands in this district, but at present they are leased as runs.



STARBOROUGH NURSERY IN 1905.



STARBOROUGH NURSERY FROM RAILWAY-LINE.

A difficulty in regard to the resumption of portions of pastoral runs is that the lessees are deprived of the low country for wintering their stock. Unfortunately, however, trees cannot be grown either successfully or profitably at high altitudes, and there is a possibility of curtailing winter country (if acquired for forestry purposes) to such an extent that the remaining portions are unworkable.

In central Marlborough there remains only sufficient land to continue planting operations for two years, while no Crown lands whatever, suitable for plantations, are available for this purpose.

In the far North we have ample State forest reserves, on the Puhipuhi Block, to maintain present output for many years; but the demand for land is so pressing that there is a danger of such reserves being opened for settlement.

Rotorua district is, fortunately, well supplied—indeed, the area available may be said to be practically unlimited.

Adjoining the Waiotapu Plantation it is proposed to ring-fence some 3,000 acres on the block known as Maungakakaramea Reserve, and, later on, to remove the present prison-camp to a central site within this area.

In addition to the districts already mentioned, large areas should be set aside in Taranaki, Hawke's Bay, Wellington, Nelson, Westland, and Southland.

Planting Old-tailing Areas.

At the recent mining conference, held in Wellington, the following resolution was carried: "That this conference recommend that old-tailing areas should, where suitable, be planted with forest trees." Officers of the Mines Department indicated a desirable area for experimental purposes near Waitahuna, on the Lawrence branch-railway. This locality was duly inspected and reported on as favourable for tree-growing, and subsequently an area of about 11 acres was selected, fenced, and preparations made to plant same with a variety of forest trees. This work will be completed during the coming spring.

The successful growth of trees on "dredged" areas has already been demonstrated at Waikaka and other places in the Gore district, where larch, spruce, alder, pines, and other trees are thriving amazingly. In considering the question of tree-planting on mining reserves, the possibility of redredging or otherwise reworking of tailings should not be lost sight of. New and cheaper methods of treating large quanties of material are constantly being discovered, and what is at present considered unpayable ground may in time be deemed sufficiently rich for reworking.

Another matter in connection with old tailings deserves special mention. In almost every portion of Otago, Southland, and the West Coast, where dredging or sluicing operations have been in progress for some time, gorse, broom, and other noxious weeds spring up and cover the ground with alarming rapidity. Holders of claims do not seem to be held responsible for the suppression of such growths, but, whether the land is subsequently reworked by dredges or utilised for planting purposes, a heavy expenditure will be involved in clearing and eradicating.

The Department of Mines also suggested an area of 1,000 acres on the Waikaka commonage as suitable for planting. On inspection, however, it was found that, owing to the block being intersected by several roads (which would render fencing an expensive item) and the enormous cost of clearing the area of broom and gorse, it was decided that no action be taken in the meantime.

The Inspecting Engineer, in his recommendations, writes as follows: "The local body does not appear to be doing anything to check the spread of gorse, which is now growing on this reserve; and if something is not done at an early date to check the gorse the seed will be carried down the valley, and lead to considerable areas of land being prejudicially affected."

Prison Labour.

From the reports of the Foresters in charge of the tree-planting by prisoners it will be seen that, on the whole, this class of work has been satisfactory.

At Hanmer Springs, Dumgree, and Waipa (Whakarewarewa) Prison-camps the Forester in Charge personally directs planting operations; but at Waiotapu Plantation instructions have been issued that the Forester is to communicate his wishes to the Gaoler, who will instruct the warders, the latter directing the prisoners, and that the planting of trees by prisoners at Waiotapu is entirely in the hands of the Justice Department.

The Hardy Catalpa (Catalpa speciosa).

The numerous inquiries for information in regard to this tree call for some remarks on the experience of the Department. During the spring of 1903 a large number were raised from seed, and by the end of the following autumn these plants had made rapid growth, averaging 9 in. in height. The following spring they were transplanted into nursery-rows, and for about twelve months they remained in about the same state as when transplanted. During the past summer they have made better growth, but the best progress is noticeable where the trees are sheltered and in the lower-lying and damper portions of the ground, but the crop as a whole is unsatisfactory.

The chief cause of failure are unseasonable frosts which are inevitable in this district during the early summer months. A variety of situations were tried—low-lying, moist, dry, and exposed—but the results in all cases were the same. Given an equable climate and a fair amount of natural shelter, I am of opinion that the *Catalpa speciosa* would thrive even on poor soil. The best results, however, are to be got on moderately rich, well-drained land, with an average rainfall and plenty of shelter; without these conditions it is useless to hope for success.

In order to further test its adaptability in various portions of the North Island, it is proposed to supply lots of from 100 to 1,000 trees to settlers at a nominal charge.

General.

My connection with the Scenery Preservation Commission terminated on the 31st March, from which date I resumed my ordinary duties, and I have to thank Mr. H. A. Goudie, Nurseryman in Charge at Rotorua, for the able manner in which he has carried on the supervision of the Department during the year, as well as the compilation of this report.

The following are the reports of various stations.

Eweburn Nursery.

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

During the past year rain fell on 113 days, with a total of 17·41 in., the maximum monthly fall being 3·82 in., recorded in January. The minimum shade temperature, 13 deg. Fahr., was registered on the 7th June, and frost occurred on 170 nights. The highest temperature was 81 deg., on the 13th December.

Frost occurred during every month of the year, and the rainfall was somewhat higher than last year, and distributed over a greater number of days.

The total rainfall since the inception of the nursery is 154·23 in., or an average of 16·59 in. for the past nine years, and the number of days on which rain has fallen is 759.

The highest reading of the thermometer was 96 deg., in February, 1896, and this temperature has never since been reached.

The last spring was a very dry one, and it was feared that the lined-out trees would suffer, but as rain set in directly after planting the situation was saved, and the crop is the finest grown since the initiation of the nursery.

Pinus maritima, which was grown for experimental purposes, made very good growth and transplanted well. *Pinus halepensis* have also made very good growth, although they were a total failure the previous year after being lined out, owing to the damp condition of the soil consequent on excessive rains.

The trees on the seed-beds have made fair growth, but the crop of *Pinus Laricio* was not as good as it should be, and a large number "damped off" after germinating.

Larch is a very good crop, and all the other varieties sown have done well. One pound of seed each of *Pinus Jeffreyii* and *Pinus Torreyana* was sown for trial, and both have grown satisfactorily, but as they have not yet had a winter to contend with it is hard to give a definite opinion as to their suitability for extensive growing here.

The number of trees "lined out" was 356,636, at a cost of 4s. 7¼d. per 1,000.

The number of trees sent out to Government plantations during the year was 157,400, their value being £410 2s.

The number of trees sent out to date amounts to 772,562, and their value £2,257 9s. 5d.

The number of trees of various ages in the nursery at the 31st March was 945,950, their total value being £1,672 13s. 9d.; and the number raised since the commencement of operations is 1,694,582, of a value of £3,861 0s. 5d. The details of the preceding figures will be found in Schedules A to A³ (appended), and the summaries.

During the year the horse and hand hoes have been kept in use as much as possible, and weeds, &c., kept from seeding.

Land not required for planting was utilised for growing horse-feed, and an area of about 4 acres was sown down in oats, the yield being 11 tons of good oaten sheaf. Although the rainfall was not heavy, this shows what can be grown in this district with good cultivation.

A new stable and workshop of wood, with concrete foundation, was erected. The old workshop has been converted into men's quarters, and is now convenient and comfortable. The whole of these improvements were carried out by nursery labour.

The average number of men employed during the year was five (day-wages).

Details of expenditure, values, &c., will be found on schedules appended.

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

Eweburn Nursery.

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.	Number of Days on which Frost occurred.
1905.	Inches.		Degrees.		Degrees.		
April	1·65	11	68	1st	22	23rd	13
May	0·70	4	62	10th	16	25th	23
June	1·47	8	50	21st, 25th	14	3rd	28
July	0·69	7	48	23rd	14	4th	31
August ...	0·38	6	48	2nd, 31st	16	11th	29
September ...	1·63	13	54	25th	25	25th	17
October ...	0·92	8	60	5th, 6th, 17th	21	11th	9
November ...	2·01	13	76	13th	26	24th	7
December ...	1·71	15	81	13th	26	24th	2
1906.							
January ...	3·82	14	78	11th	28	7th	4
February ...	2·07	10	74	11th, 14th	31	20th	2
March ...	0·36	4	73	2nd	25	30th	5
Totals ...	17·41	113	...	...	...	...	170

A. W. Roberts,
Nurseryman in Charge.

Naseby Survey Paddock Plantation.

(Area, 175 acres; altitude, 1,700 ft.)

All trees at the above plantation have made very satisfactory growth. During the year weeds have been kept down around the smaller trees, and a strip of land ploughed around the fence-line in case of fire from outside.

Trees to the number of 19,650 were used to fill up blanks with *Pinus ponderosa*, in place of *Pseudo-tsuga taxifolia*, which have proved useless here. The area planted, therefore, remains at 132½ acres, and the total number of trees in the plantation at 360,185. The cost of planting trees was 16s. 8d. per 1,000.

Statements of expenditure and values are appended.

A. W. Roberts,
Nurseryman in Charge.

Gimmerburn Reserve.

(Area, 420 acres; altitude, 1,200 ft.)

The trees at the above plantation have made satisfactory growth, considering that there have been two dry seasons in succession. Trees planted last season have made better growth than those planted during the previous year, many having put on fully 6 in. of vertical growth for the season. The larch planted this season did not do well, and there will probably be about one-third succumb. The ground was very dry and rough and the trees were off the seed-beds, which may account for this failure. The rainfall would probably not amount to more than half of what was recorded at Eweburn, hence the difficulty of getting trees to succeed the first year. As the ground is very hard and lumpy, it has been decided to crop the next 100 acres with oats or turnips prior to planting with trees.

Pinus Austriaca, growing not a mile away from this plantation reserve, are known to have attained a height of from 8 ft. to 10 ft. in seven years.

Trees planted during the year number 129,100, and the new area covered was 16 acres. The plantation now contains 223,775 trees, which occupy an area of 76¼ acres.

The average cost of planting and digging half-holes was 17s. 7½d. per 1,000, and the cost of pitting 11s. 6d. per 1,000.

The average number employed during the year was one man (wages).

An area of 68 acres was sown down in oats, and the estimated yield is 2,000 bushels, which will be distributed to the various nurseries.

Two new "paroid" huts have been erected on skids for the use of the workmen, making very warm dwellings, which are much appreciated. These are each 14 ft. by 12 ft., and are lined throughout with tongued and grooved timber.

Details of expenditure, values, &c., as per statements appended.

A. W. Roberts,
Nurseryman in Charge.

Tapanui Nursery.

(Area, 120 acres; altitude, 500 ft.)

During the past year rain fell on 119 days, with a total of 43·95 in., the maximum monthly fall being 6·45 in., recorded in October. The minimum shade temperature (21 deg.) was registered on the 2nd July, and the highest (90 deg.) on the 15th February.

An excellent mild winter was experienced, and for the months of May, June, July, and August a total rainfall of only 7·53 in. was recorded.

During the four following months, when favourable weather is essential to successful nursery operations, no less than 23·10 in. of rain fell, causing considerable delay in work, and to a great extent interfering with subsequent progress in tree-growth.

Hardwood-seed sowing was carried on in the early part of July, the usual amounts of ash, oak, and sycamore being sown with fair results.

Preparations were made for conifer-seed sowing on the 4th October, and this work, through repeated breaks in the weather, was not completed until the 23rd October. Heavy continuous rain immediately followed, and a hard crust soon formed on the surface of the seed-beds. Notwithstanding this, an average germination resulted in all species, with the exception of *Picea sitchensis* and *Pseudo-tsuga taxifolia*.

The continued absence of sunshine and warmth was responsible for the damping-off of fully two-thirds of the entire larch-crop, and the estimate of one-year-old seedlings of all species was reduced to 742,625.

The two-year-old trees in seed-beds, although not making the average growth, are mostly healthy plants, and a large percentage of the total—1,242,500—is sufficiently strong for permanent planting this year.

Lining out.—Transplanting of one- and two-year-old trees was commenced on the 17th August, and extended over five weeks. During that period 523,700 seedlings were transferred to nursery-lines at a cost of 2s. 9½ per 1,000. The percentage of deaths in this operation was very slight, although their growth is only consistent with the backward season experienced.

Two years ago about 70,000 *Picea excelsa* were lined out, but their stunted appearance at the termination of the season made it necessary to allow for an extra year's growth. These have developed into well-grown, fibrous-rooted trees, averaging about 9 in. in height.

The total number of trees of all ages in the nursery at present is estimated at 2,565,675, valued at £4,008 13s. 6d.

During the winter months 713,827 trees, as per Schedule B3, and valued at £2,110 17s. 5d., were transferred to the following plantations, domains, &c.: Conical Hills Plantation, 623,000; Dusky Hill Plantation, 70,075; Hanmer Springs Plantation, 17,525; Industrial School, Burnham, 2,220; Domain Board, Gore, 90; Tourist Department, Hanmer Springs, 200; Tourist Department, Queenstown, 392; Beautifying Association, Waikoikoi, 325.

Eight thousand five hundred *Robinia pseudo-acacia* and 100 berberis were received from Eweburn Nursery. The former were sized, and 6,975 sent to Conical Hills Plantation, the remainder being lined out for another year.

One hundred *Catalpa speciosa* from Rotorua Nursery were also planted, but the first year's growth would indicate that the Catalpa species are not suited to this climate.

The total number of trees grown to the 31st March, 1906, is 6,635,705, being valued at £17,556 5s. 11d.; and the total number of trees transferred to plantations, &c., since the initiation of nursery is 4,122,330, representing a value of £13,643 4s. 5d.

The shelter and ornamental plantations laid out during the past three years are making rapid headway, and many of the trees at the southern boundary of nursery have grown to a height of fully 12 ft. 1,770 additional shelter trees and shrubs were planted out permanently in various exposed corners of property.

Buildings: The galvanised-iron sizing-shed, erected in May last, has not only enabled all winter work to be carried on with greater facility, but has proved itself indispensable as a tool-house and shelter-shed during stormy weather.

All ground reserved for coming season's lining-out operations is now in good order, having in the early spring received a double ploughing to a depth of about 10 in., and since remained in fallow. Minor improvements in the form of draining, road-making, extension of shrubbery, and general maintenance were also effected.

The expenditure for the year amounted to £1,516 17s. 6d., providing employment for an average of twelve men.

The three yearling fillies are developing into useful-looking animals, and their value has been increased to £15 per head.

About 35 tons of oaten sheaf were harvested from the extension property, but as we have now six horses and four yearlings to provide for, a considerable amount of this yield will have to be chaffed for our requirements. About 8 tons of rye and clover, and 4½ tons of carrots, especially grown for winter horse-feed, were also harvested under favourable conditions.

Details of trees grown and statements of expenditure for the year are appended.

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

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Thermometer.	Date.	Lowest Reading of Thermometer.	Date.
1905.	Inches.		Degrees.		Degrees.	
April	3·99	14	78	6th	31	18th
May	1·94	5	70	6th, 11th	25	26th
June	2·60	10	59	15th	22	28th
July	1·09	3	64	21st	21	2nd
August	1·90	6	65	26th	24	28th
September	5·62	13	63	6th	30	9th
October	6·45	7	75	7th	29	3rd
November	5·57	15	88	13th	35	3rd, 10th
December	5·46	14	85	9th, 13th	34	31st
1906.						
January	3·12	18	85	13th	36	2nd, 22nd
February	2·70	12	90	11th	37	15th
March...	3·51	12	83	15th	31	10th
Totals	43·95	119	...	...	...	...

R. G. Robinson,
Nurseryman in Charge.

Dusky Hill Plantation.

(Area, 845 acres; altitude, 400 ft. to 800 ft.)

Satisfactory progress has been made in growth of all trees in this plantation, with the exception of ash, spruce, and sycamore that are planted in situations exposed to the prevailing winds.

The season has been an exceptionally wet and cold one, and not at all conducive to rapid progress of these unsheltered trees. A violent hail-storm passed over the plantation, and in consequence many of the larch leaders were broken. As a result, double leaders were found issuing from the heads of injured trees; but on the removal of one of these shoots the trees quickly outgrew any apparent defects through the injury.

Trees to the number of 70,075 (as per Schedule B[3]) were planted throughout where failures resulted in previous plantings, at a cost of 18s. 8½d. per thousand. It is anticipated that an additional twenty thousand trees, planted next year, will complete replanting operations, and more time may be given to the general maintenance of the plantation.

Ground was prepared, and 21,950 acorns planted *in situ* where vacancies occurred, at a cost of 14s. 7½d. per thousand.

An expenditure of £230 0s. 2d. was incurred in general maintenance. This item includes clearing fern from around young trees, pruning, ploughing roads and firebreaks, and making drains.

About 16 chains of track were formed—costing 4s. per chain—to give access to various parts of the plantation.

A considerable amount of time was spent in removing manuka scrub, which has grown strongly since last cutting. This work is necessary, as the scrub in being blown about by the wind comes in contact with the leaders of trees growing within reach, and causes direct injury to the same.

Cutting Canadian thistle and ragwort also provided a fair amount of labour during seeding-time, but as the trees make headway the spreading of noxious weeds will be gradually suppressed.

The average height of trees planted during the first year's operations on this plantation is about 13 ft., and through the absence of sunshine, caused by branches of trees forming a canopy overhead, undergrowing vegetation is fast becoming extinct.

The expenditure for the year amounted to £487 6s., giving employment to an average of four men.

Details of expenditure and values are appended.

F. Benfell, Assistant Forester.
R. G. Robinson, Nurseryman in Charge.

Conical Hills Plantation.

(Area, 1,050 acres; altitude, 400 ft.)

Notwithstanding the absence of warm forcing weather, a very favourable growth has been made by trees planted throughout, and pines may be specially mentioned in this respect.

Trees to the number of 623,000 (as per Schedule B[3]) were planted, occupying an area of 228¾ acres, and the preparation of ground for the planting of 239,600 acorns was carried on by day-labour, at a cost of 14s. 3¼d. per thousand.

The area for the year's planting amounted to 278¼ acres, making a total of 664¾ acres, containing 2,074,171 trees.

Pits to the number of 464,070 for tree-planting were made by contract, at £1 5s. per thousand, this cost being increased to £1 6s. 8½d. by inclusion of Forester's salary. 98,689 grubber-pits were also prepared by contract, at £1 per thousand; actual cost, £1 1s. 6¼d.

Road-formation was continued, about 147 chains being ploughed and partly formed in readiness for the coming season's delivery of trees.

One hundred and thirty-seven chains of additional firebreaks were ploughed outside boundary-fence to minimise the risk of fires from adjoining properties.

Pinus radiata, to the number of 6,075, were planted on ridges as breakwinds. Although many of the trees were rather large for transferring to such exposed places, only a small percentage failed to succeed.

General maintenance: A large amount of work is now necessary in clearing fern and other growth from young trees, and it has been specially noticed that this work is accomplished with more satisfactory results if carried out before spring-time, as a very decided check to growth is noticeable when removal of immediate shelter is undertaken whilst the young trees are making their annual growth. Pruning, cutting gorse and manuka scrub, and the removal of noxious weeds, and rabbiting were also carried on.

It is anticipated that the whole of the ground available for pitting on this plantation will be completed before the expiration of another season, and in view of this fact an additional area of about 1,600 acres adjoining the plantation has been recently acquired for forestry purposes, and fencing and pitting operations will be carried on in this extension during the ensuing year.

For the next season about 900,000 trees and acorns will be available for planting.

The expenditure for the year amounted to £1,872 16s. 11d., providing work for an average of seventeen men.

Details of expenditure and values are appended.

H. Howe, Forester.
R. G. Robinson, Nurseryman in Charge.

Waitahuna Plantation, Otago.

(Dredged area, 11 acres; altitude, 331 ft.)

To test the suitability of old dredged areas for forest-tree planting, an area of 11 acres immediately adjoining the township, on the southern side, has been selected for the purpose, and operations were commenced early in February last.

Forty-three chains of wire-netting fence were erected by day-labour, at 4s. 6d. per chain, and included in this cost is extra labour in levelling off to some extent the fence-line, where tailing deposits have naturally created an uneven surface.

As may be expected, these dredged areas when lying idle are easily and speedily converted into prolific gorse wastes by the seed being conveyed by floods, or else blown from hedges in the vicinity and deposited there, where germination readily follows.

An expenditure of £25 is necessary to clear the enclosure of this scrub before pitting for tree-planting can be proceeded with.

It would be to the interest of the Government and landholders generally if lessees of dredging-claims were required to keep noxious-weed growth in check during the currency of their lease, as

the spread of gorse and broom to properties lower down the valleys will likely in the near future prove disastrous to holders of properties in that direction if the matter is not attended to.

Drains were made at various places through the property to assist in draining the low-lying portions.

It is proposed to prepare 30,000 pits during the coming winter, in readiness for planting the enclosed area with suitable hardy trees in the early spring-time.

The expenditure incurred since the initiation amounted to £39 9s. 7d.—total cost of fencing material not included—providing employment for two men for two months.

Details of expenditure and values are appended.

D. Risk, Foreman.
R. G. Robinson, Nurseryman in Charge.

Hanmer Springs Nursery.

(Area, 20 acres; altitude, 1,225 ft. (approximately).)

During the past year rain fell on 164 days, with a total of 62·18 in. September and February were the wettest months, 10·45 and 10·37 in. respectively being recorded. The maximum shade temperature (91 deg. Fahr.) occurred on the 13th December, and the minimum, 13 deg., on the 5th June.

No records of the rainfall were taken previous to this year, so that a comparison with other years cannot be made; but old residents regard the rainfall as the heaviest experienced for many years.

Seed-sowing was commenced on the 31st October—fully a fortnight later than the year previous—and was finished on the 6th November. All species germinated well, and are a good crop, with the exception of Oregon pine, this being practically a failure. As only 3 lb. was sown, the loss was not great.

Lining out was started early in August, and finished on the 20th September, 416,840 trees being dealt with, at a cost of 3s. 7¼d. per thousand, the area occupied by the same being about 4½ acres. Trees to the number of 118,000, comprising larch, Oregon, and Aleppo pines, were lined out, at a cost of 2s. 5¼d. per 1,000. Showery weather was experienced while the work of transplanting was in progress, giving the trees a splendid start, and all have done well, except *Pinus halepensis*, of which fully 30 per cent. have died. Apparently this tree is not suitable for planting at Hanmer.

The number of trees raised in the nursery during the year was 750,000, valued at £759 5s. (See Schedule E.)

The estimated number of trees in the nursery on the 31st March, 1906, was 1,395,840 (see Schedules E to E²), valued at £2,268 5s. 2d. The total number of trees grown in the nursery since its initiation is 1,378,000, valued at £1,402.

Trees—number, 35,210, valued at £61 4s. 7d.—were transferred from the nursery to the plantation. The estimated number available for the coming season is 400,000.

Nine new seed-frames were made by prison labour in a very satisfactory manner.

About 2 acres of scrub was cleared off a portion of the nursery area, and the ground ploughed and cultivated in readiness for lining-out purposes next season.

The average number of labourers (free) employed during the year was four (including one boy). Details of expenditures and values, and schedules of trees are appended.

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

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.
1905.	Inches.		Degrees.		Degrees.	
April	2·85	10	83	1st	27	19th
May	3·07	10	69	10th	25	19th, 26th
June	7·705	14	64	14th, 23rd, 24th	13	5th
July	4·01	11	66	24th	17	3rd, 4th
August	3·45	13	68	18th	18	11th
September	10·45	21	66	17th, 18th	29	2nd
October	5·28	14	74	24th	26	15th
November	4·67	14	78	5th, 29th	32	12th, 16th
December	3·135	13	91	13th	34	2nd, 24th
1906.						
January	4·13	17	86	14th	32	7th, 24th
February	10·37	16	81	2nd	33	19th, 20th
March	3·06	11	82	2nd	30	14th, 27th
Totals	62·18	164	...	...	...	...

W. Cromb,
Nurseryman in Charge.

Hanmer Springs Plantation.

(Area, 600 acres, approximate; altitude, 1,225 ft.)

The past year has been an exceptionally good one for plantation-work, an abundant rainfall being recorded all through the year. The trees have done well, the past season's planting being a thorough success. The older trees in the plantation have made good growth, and larch in many instances have grown 3 ft. to 4 ft.

Owing to rains and heavy frosts in June, about five thousand Norway spruce, planted on a swampy piece of land, were thrown out of the ground. Losses of this sort can scarcely be guarded against.

Acorns planted *in situ* during the year numbered 70,900, and 52,735 trees were planted, making a total of 123,635 (see Schedule E[8]). Of this number 11,690 trees and 23,500 acorns were used to fill up blanks in previous plantings. The area planted during the year was 32½ acres.

The total number of trees in the plantation to date is 788,270, of which 374,200 have been grown from seed sown *in situ*. The area planted to date is 285 acres.

Marking 315,760 pits by free labour, for prisoners to open, cost 8s. 2½d. per thousand.

286,600 pits are available for the coming season's planting.

To drain several swamps 132 chains of drains were cut, at a cost of 4s. 4d. per chain.

A tool-house and implement-shed was built by a prisoner, the workmanship being all that could be desired.

Land to the extent of 92 acres was cleared of scrub during the year for tree-planting purposes.

By doing a little rabbiting occasionally the pest has been kept well down, and no damage has been done by them.

The expenditure for 1905–6 was £443 7s. 9d., the total expenditure since the initiation of the plantation being £2,567 9s. 3d.

The value of improvements for the year 1905–6 was £1,314 19s. 2d., the total value since the beginning of the plantation being £6,079 13s. 7d.

The average daily number of free men employed during the year was two.

It is expected that next season will complete the planting of the present enclosure, and preparations are being made to fence in a new block. A portion has been cleared of scrub in readiness for pitting operations, and a part of the fence-line chipped. Fencing will be commenced shortly.

Prison labour has again been very satisfactory, the value of the work done amounting to £563 18s. 2d., or an average of £48 13s. 11d. for each of the 11·58 men employed during the year.

The work has been well performed, and the thanks of the Department are due to the prison officers for the ready assistance given in carrying out the various works as directed.

Statements of expenditures and values are appended.

W. Cromb,
Assistant Forester.

Starborough Nursery.

(Area, 104 acres; altitude, 100 ft.)

Rain fell on 115 days during the year, with a total fall of 33·14 in. The maximum temperature recorded was 96 deg. and the minimum 20 deg. The rainfall for the past year has been much above the average for this district. Old settlers state that a similar season was experienced thirty-two years ago. In a dry district like South Marlborough the visible results of a bountiful rainfall are very marked. The work at the nursery shows in a striking degree the influence of a moist season in the germination of the seeds, the vigour of the seedlings, and the larger number of plants produced per pound of seed sown. Trees in shelter-belts and shrubberies have made wonderful growth, and now afford considerable protection to young nursery-stock.

Seedling trees (one year old): Seed-sowing began on the 29th September and finished on the 5th October. With the exception of one or two small lots every variety sown has germinated well. The seedlings are strong and healthy, and on the whole are a first-rate crop.

Two-year-old trees have made fine growth, and are strong, healthy stuff.

Lining out trees: This work was begun on the 7th August and finished on the 13th September. The weather experienced during this period was showery, but on the whole favourable. The transplanted larch have made very strong growth, and are an excellent crop. The one-year *Pinus Laricio* that were lined out have done well, and the improved condition of the roots should give much better results when these trees are transferred to plantations.

Trees to the number of 642,000 were lined out, at a cost of 2s. 11½d. per thousand, over an area of 5 acres 3 roods.

The number of trees raised during the year was 900,200, valued at £870 17s. 6d.; and the number of trees in the nursery at the 31st March was 1,533,700, valued at £2,428 17s. 6d.

The estimated number of trees available for planting out in plantations is 600,000.

The total number of trees raised in the nursery from 1901 to 1906 is 2,165,375, valued at £4,213 5s. 3d.

During the year 371,100 trees were sent to plantations, &c., and their value was £1,252 1s. 3d.

The total output of trees to plantations from 1901–6 is 631,675, valued at £1,784 7s. 9d.

The expenditure for the year was £1,362 11s. 6d., and the total expenditure to 31st March, 1906, was £6,523 8s. 10d. The value of stock, improvements, &c., for the year is £4,587 17s. 11d., and the total value to March, 1906, £8,230 13s.

The nursery-formation, roading, shelter-belts and shrubberies (outlined five years ago) have now been completed. The shelter-belts have made fine growth, and are an object-lesson to settlers in this treeless portion of Marlborough.

Men's quarters: This much-needed work is now completed. Every convenience for the comfort of the men has been provided, and should assist in making them more contented, and cause them to take greater interest in the work of the Department.

Horse-feed to the value of £113 was grown during the year, and 110 pounds' worth was sent to other nurseries.

The daily average number of men employed was eight.

Details of expenditure, values, and schedules of stock are appended.

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

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.
1905.	Inches.		Degrees.		Degrees.	
April	1·07	5	82	1st	30	22nd
May	0·94	5	72	11th	31	21st
June	7·43	12	68	14th	20	6th
July	1·80	14	68	24th	20	19th
August	1·54	11	66	15th	24	12th
September	4·04	16	80	30th	30	25th
October	6·28	11	79	1st	31	15th
November	1·77	10	81	21st	39	16th
December	1·69	11	90	21st	32	24th
1906.						
January	2·36	8	96	26th	35	7th
February	2·65	5	89	23rd	35	20th
March	1·57	7	88	13th	30	24th
Totals	33·14	115	...	...	...	...

N. Craig,
Nurseryman in Charge.

Dumgree Plantation.

(Area, 881 acres; altitude, 100 ft.)

The work for the year has been done partly by free labour and partly by prisoners. Free men were employed as follows: Pitting—268,513 pits were dug at a cost of £2 10s. 6¼d. per thousand. Planting—214,725 trees were planted, at a cost of £1 2s. 1¾d. per thousand. Improvements by labour, £65 5s. 1d.; digging trenches and heeling-in trees, £10 17s.; supervision of prison labour, £85 8s. 6d.; supervision of free labour, £51 8s. 6d.; cartage of trees, £29 5s.; general maintenance, £22 15s.

The increased area planted during the year was 130 acres, containing 354,250 trees. To fill up blanks on 62½ acres 11,000 trees were used, making a total number of trees planted for the year of 365,250, valued at £1,244 10s. 3d., as per Schedule D[3].

All the trees have done well. The splendid rains and good growing weather experienced throughout the year have made an assured success of the work, and the loss over all will not exceed 5 per cent. The trees planted during the two previous seasons are now well established, and are making good growth.

The total number of trees now in this plantation is 536,086, and the total area planted 192½ acres.

Revenue Account.

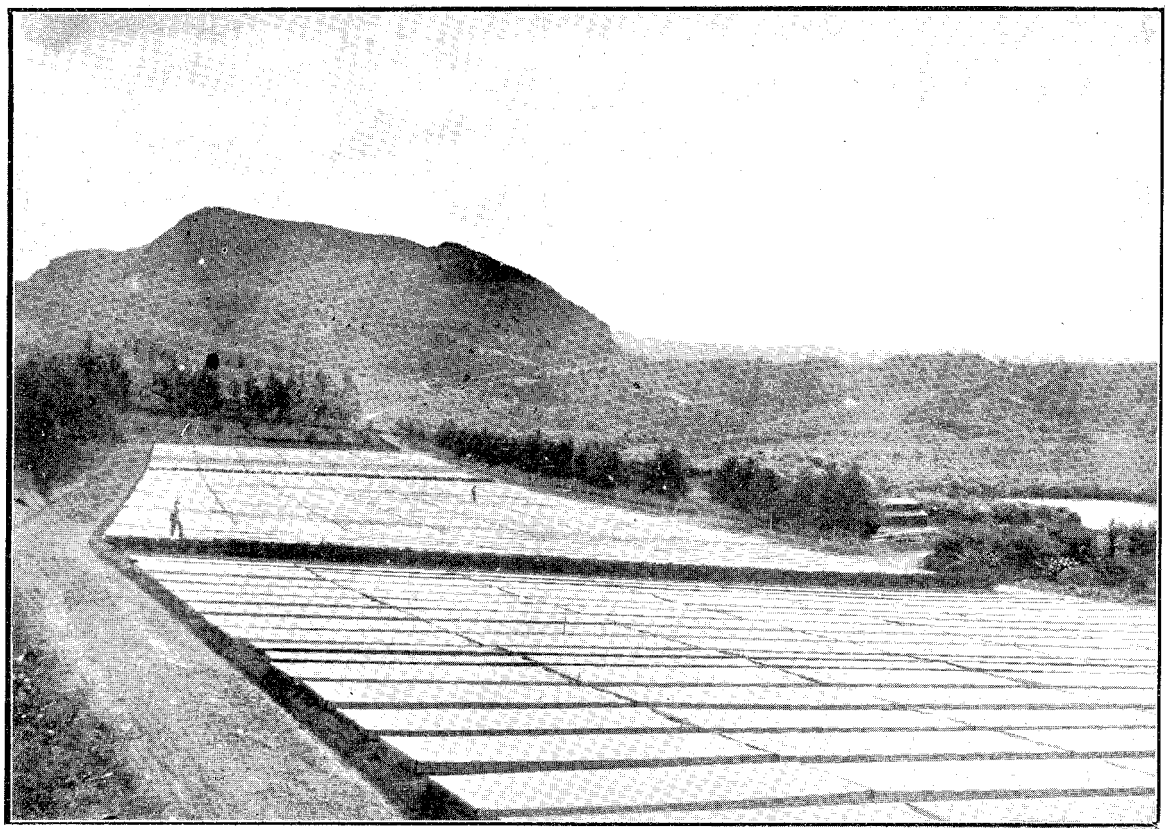
For 163 tons 17 cwt. 2 qr. of flax the sum of £61 9s. was received, and for rent £22 19s., making total receipts £84 8s., which was duly paid to the credit of the State Forests Account.

The expenditure for the year was £1,349 19s. 10d., and the total expenditure to 31st March, 1906, including purchase of land, £6,240 15s.

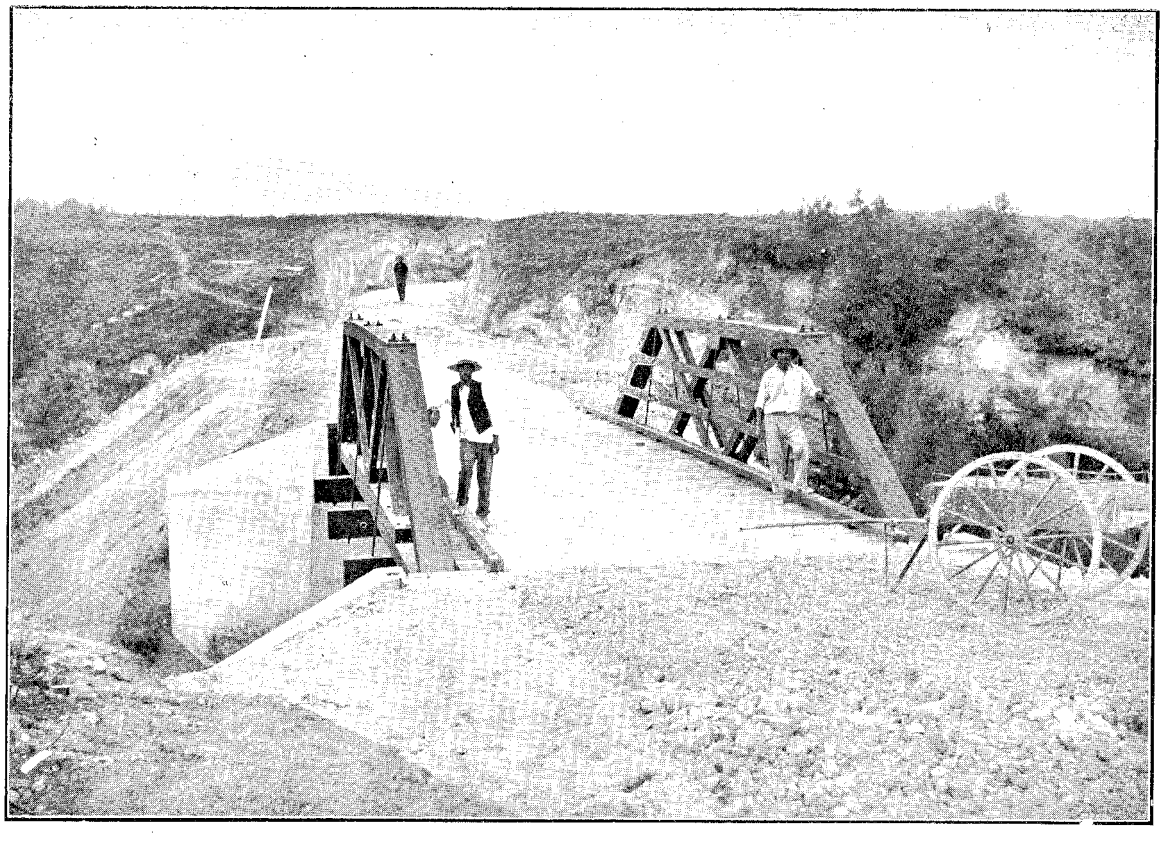
The average daily number of free labourers employed for the year was eleven.

Prison Labour.

The record of prison labour for the year is excellent. The average daily number employed was 27·06. The increased value of prisoners' labour for the year is also satisfactory. For 1904–5 the daily average earnings for each prisoner was 2s. 4d., whilst for 1905–6 the amount is 2s. 9d. The following works have been done during the year, and the values are based on free labour at 7s. per day; the average value of work done per man for the year is £29 15s. 7½d.: Pitting, 158,025 pits dug, valued at £332 17s. 6d.; planting 146,150 trees, £159 3s. 8d.; reopening 11,000 pits, £7 13s. 1d.; pit-marking, 174,085 marked, £50 2s. 7d.; roadmaking, £60 4s. 6d.; trenches for trees, £35 8s. 1d.; heeling-in trees, £14 18s. 5d.; pruning trees, £1 13s.; cleaning amongst trees, £107 5s.; repairs to roads, £13 10s. 7d.; taking down Awatere Accommodation-house, £23 1s. 9d.; total, £805 18s. 2d.



SEED-BEDS, ROTORUA NURSERY.



NEW BRIDGE TO GIVE IMPROVED ACCESS TO ROTORUA NURSERY.

A considerable amount of labour was further employed in effecting improvements to the camp, extending the garden, fencing, growing vegetables, &c. The prison officers have supervised the work with care and discretion, and the men have taken a commendable interest in their work, and on the whole their conduct has been good.

Details of expenditure and values are appended.

D. Buchanan, Assistant Forester.
N. Craig, Nurseryman in Charge.

Rotorua Nursery.

(Area, 50 acres; altitude, 1,000ft.)

The weather experienced during the past year has been most favourable for tree-growing, and it is pleasing to report that the various crops grown at this nursery are extremely good, and in many instances almost phenomenal growth was made. The rainfall during the year amounted to 49·67 in., falling on 169 days, the heaviest monthly fall being recorded for October, when the total fall registered was 7·80 in. on twenty-one days. During the previous year—1904–5—the rainfall amounted to 52·04 in., falling on 153 days.

The maximum shade temperature was recorded on the 4th of December, with 94 deg. Fahr., against 95 deg. in January, 1905; and the minimum temperature was 24 deg., on the 8th August, against 22 deg. in the corresponding month of the previous year.

These particulars of the rainfall and temperature express very inadequately the general weather conditions, and it may be as well to further mention that the dry windy weather which is usually prevalent here during the spring was not experienced during the corresponding period of this year. This fact goes a long way in accounting for the good growth made by the trees, as the spring months are perhaps the busiest and most important ones of the year. The lining-out and transplanting of trees is then in full swing, and their subsequent growth depends very much upon the state of the atmosphere at that period; a moist, warm atmosphere, of course, being most conducive to good growth and a low death-rate.

During last spring trees to the number of 1,483,500 were lined out, at an average cost of 1s. 9d. per thousand. This cost is low compared with the previous year, when lining out cost 2s. 6d. per thousand; but can be accounted for from the fact that the majority of the trees dealt with were larch, and were easily handled.

Seed-sowing commenced on the 12th October, and owing to favourable weather was completed early in November, about a month earlier than last year, and at a much less cost.

The crop of one-year-old seedlings is, perhaps, the finest that has been raised here during the last five years. All the principal species germinated well, the larch and Corsican pine being particularly fine, both as regards percentage of germination as well as growth. About one-half of the larch-crop are from 4in. to 6in. in height, and it will be necessary to transfer them to the nursery-rows next spring. It is worthy of notice that from 560lb. of larch-seed sown the estimated crop is 2,500,000 trees, while the same quantity of seed sown the previous year resulted in a crop of 1,500,000, or 1,000,000, less than this year. The good crop this year is due largely to the excellent quality of the seed obtained, and in a measure to the favourable weather. Whilst mentioning this fact, it is especially urged that a sufficient sum should be placed on the estimates to provide for such a contingency. Where the result of a crop is merely conjectural, it is evident that the cost of handling the crop when it reaches the critical stage is also a matter of conjecture; and, in respect to this year's crop of larch, it is estimated that it will cost during the next year £200 more to handle than did that of the previous year. The crop of *Sequoia sempervirens* (redwood) is again poor, but it is much better than has been obtained during the last three years. *Juglan's nigra* also germinated sparsely, but the plants have made very good growth.

The two-year-old trees in seed-beds have done well

Lined-out trees are all strong and sturdy, and mostly fit for transferring to the plantations during the coming winter.

It is now evident that a further area of about 20 acres of land will need to be secured for nursery purposes. The present enclosure has, with the exception of about an acre, all been graded and broken up, and yet it is not large enough to accommodate the trees which are being grown, unless a system of manuring is carried on and the same land cropped year after year. Such a procedure would be most inadvisable in this light pumiceous soil, and would only get over the difficulty for a few years. Since the increase in the crops at this nursery was authorised, three years ago, until now no fair test has been afforded as to the area of land required, owing to the fact that may of the two-year-old trees were sent to the plantations direct—not lined out—and also that of the prescribed number about one-third were Eucalypti, which, owing to their rapid growth, were planted permanently twelve months after the time of sowing the crop. The number of trees in the nursery has steadily increased from 5,535,355 in 1904 to 6,563,625 in 1905 and 7,781,400 in 1906, and from now on it will remain much the same as at present. The seed-bed ground, with the exception of a few small areas, is at present all occupied, and it will be necessary to select a further area for this purpose before next spring, thus reducing the ground that has been used up till now for lining-out purposes.

It will also be necessary to provide another grass-paddock for the horses, as the present enclosures are quite inadequate since a second team was purchased, and it has been necessary to feed with hay during the past summer. In this hot climate horses soon get out of sorts if fed continually on hard feed, and the cost of a grass-paddock would soon be amply repaid.

Buildings: A four-roomed cottage was erected last winter for the Nurseryman in Charge. The building was erected in a substantial manner, and is replete with every convenience, although the rooms are somewhat on the small side. The men's quarters were also extended, two rooms being added to meet the requirements of the increased staff. It was also necessary to extend the stable in order to accommodate the three new horses purchased for the Whakarewarewa Plantation. The alterations comprise four stalls, an extension to the loft, and harness and feed rooms.

A much-wanted convenience was provided in the shape of a bridge across the Puarenga River. Formerly all the traffic to and from the nursery was either by way of the native village (which is a very unsafe road for horse traffic) or by a more circuitous route, by way of the Tikitere and Wairoa Roads. For safety, the waggon when going to Waiotapu took the latter route, which added about three-quarters of an hour to the journey, and during the short winter days the Waiotapu Plantation was reached just at dark, provided the roads were good and no accident happened. In the event of a delay from any cause whatever, the latter and most dangerous part of the road had to be traversed after dark, and great credit is due to the driver for the careful manner in which he carried out his duties—no accident of any consequence having occurred. The Rotorua Nursery and Whakarewarewa and Waiotapu Plantations were each equally convenienced by the new bridge, and the cost of the erection was divided between the three works.

Trees to the number of 2,386,931, valued at £6,281 13s. 8d., were sent to the plantations, &c., during the year, and since the initiation of the nursery 9,705,571 trees, valued at £21,509 11s. 5d., have been sent out.

The cost of mossing trees averaged 10s. 1d. per thousand, and the number thus dealt with amounted to 704,393—mostly Eucalypti.

Seedling trees—number, 2,750,800—were lifted, sized, &c., at an average cost of 2s. per thousand. This work was carried on in the sizing-shed, mostly during wet weather.

The average number employed daily during the year was twenty-seven.

Schedules of trees and statements of expenditure and values are appended.

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

Month.	Rainfall.	Number of Days Rain fell.	Highest Reading of Thermometer.	Date.	Lowest Reading of Thermometer.	Date.
1905.	Inches.		Degrees.		Degrees.	
April	2·95	9	83	7th	30	23rd, 24th
May	4·70	14	71	3rd	29	5th, 6th, 7th
June	5·15	18	62	27th	26	7th
July	7·29	13	60	2nd,15th, 24th	26	3rd, 11th, 19th, 20th
August	4·56	13	67	31st	24	8th
September	4·46	22	69	15th	31	6th
October	7·80	21	89	19th	32	5th, 15th
November	3·25	15	93	19th	32	10th
December	2·48	15	94	4th, 9th	36	25th
1906.						
January	2·37	6	91	27th	40	24th
February	2·51	15	82	2nd	32	21st
March	2·15	8	88	14th	32	28th
Totals	49·67	169	...	...	...	...

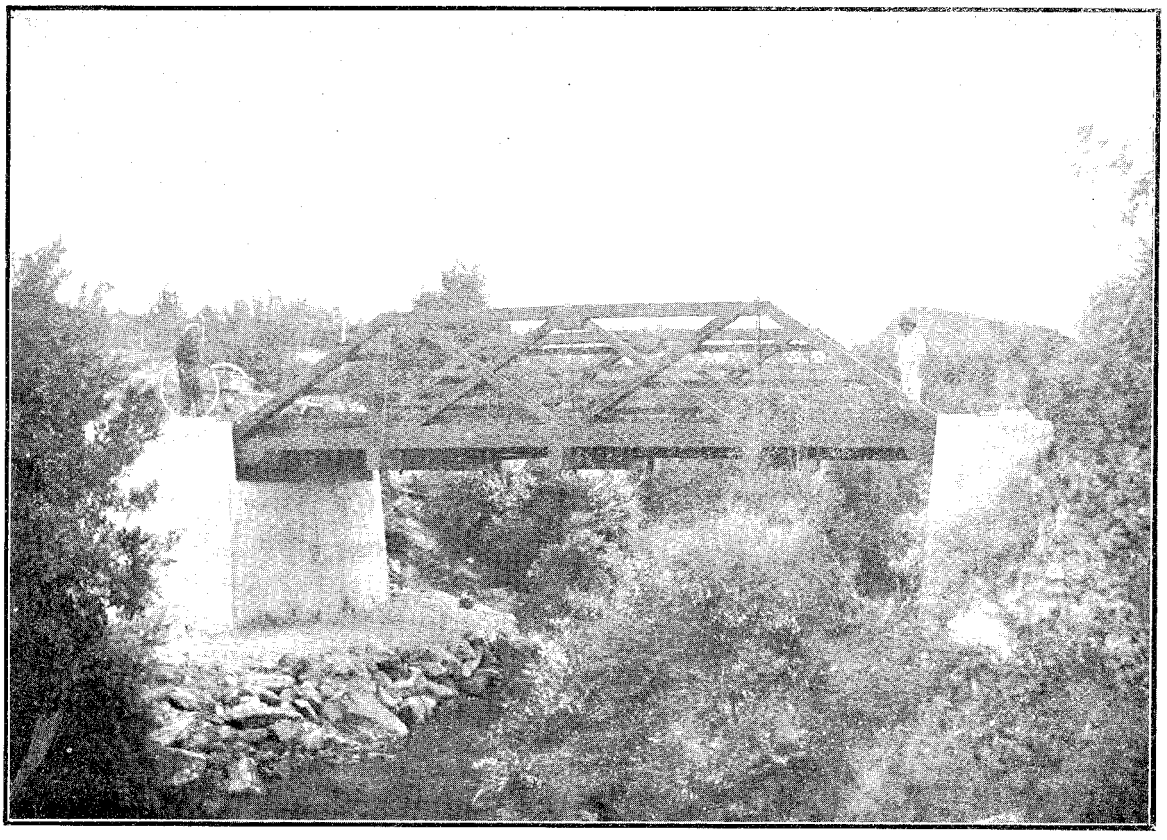
H. A. Goudie,
Nurseryman in Charge.

Whakarewarewa Plantation.

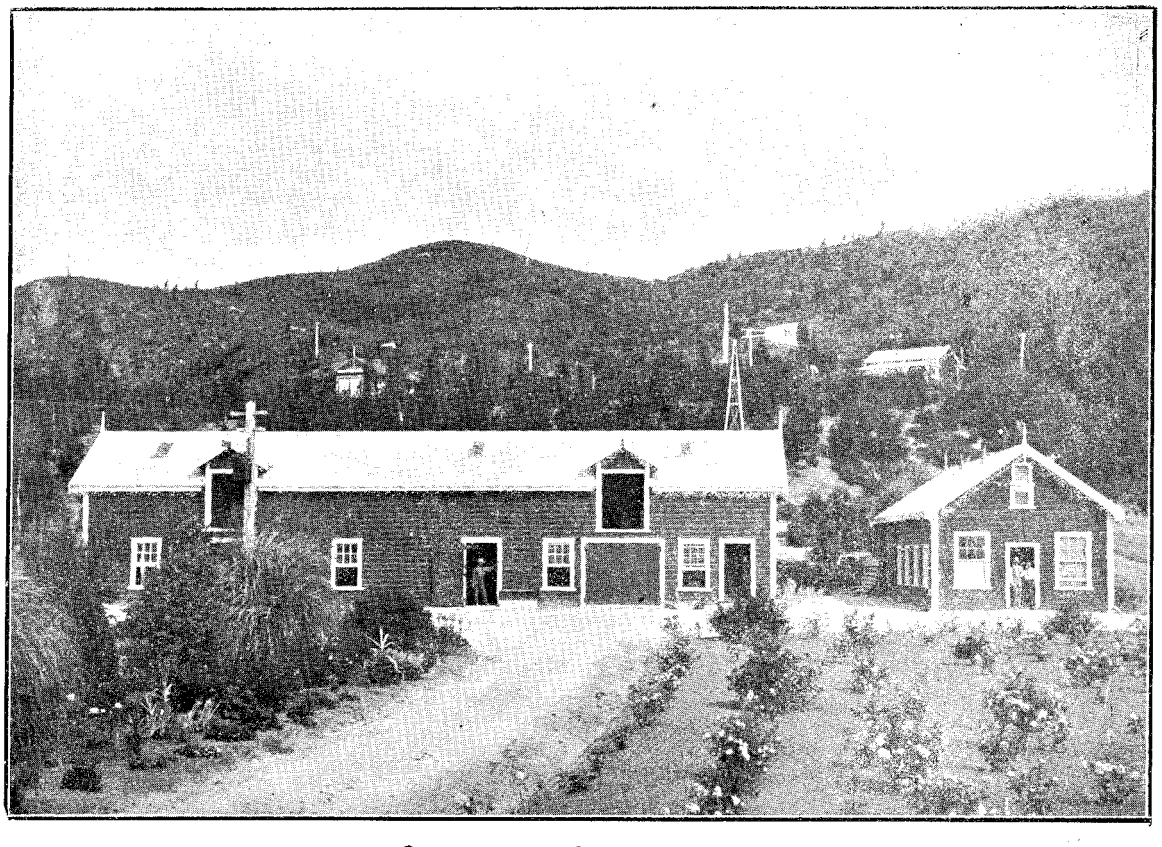
(Area, 8,912 acres, approximate; altitude, 1,000 ft., approximate.)

Owing to the excellent weather conditions which prevailed during the greater part of the year, the trees on the whole have done well. During the year trees to the number of 1,195,904 were dealt with. Of this number 967,983 were planted on a new area of 435¾ acres, 222,417 were used to replace deaths in former plantings, and 5,504 were planted for ornamental and shelter purposes adjacent to the camp-site. This reserve now contains 2,408,186 trees, which occupy an area of 1,401½ acres. Much of the work has been done by prison labour, but it was also necessary to largely employ free labour in order to get all the available trees planted. Portions of the plantation are also at too great a distance from the prison-camp to be economically worked by prisoners. This applies generally to the oldest blocks of the plantation which have been worked entirely by free labour. An average daily number of 14·19 prisoners performed work to the value of £771 8s. 4d., or an average value of £54 7s. 3d. per man. Details of this will be found in the schedules of values appended.

Free labour: An average daily number of nineteen free men were employed, and the cost of the various works undertaken was as follows: Pitting cost 15s. 3d. per thousand; planting cost



NEW BRIDGE TO GIVE IMPROVED ACCESS TO ROTORUA NURSERY.



OUTBUILDINGS, ROTORUA NURSERY.

8s. 11d. per thousand trees; replanting failures (including opening pits) cost 28s. 8d. per thousand, and 85 chains of roads and tracks were formed, at a cost of 5s. per chain; clearing 154 acres cost on the average £1 8s. 2d. per acre. A large portion of the area cleared was covered with a very heavy growth of tutu and fern, and the land was also rough and steep, consequently the cost of this work is considerably greater than the previous year, when it cost on an average 9s. per acre. As a rule, clearing costs on an average about £1 an acre in the district.

A further area of 95 acres, between the Wairoa Road and the old plantation area, was set apart during the year for State-forest purposes. The old boundary fence was consequently removed and re-erected on the new line. This fence was also continued for about 120 chains along the Wairoa Road, and a short length of fencing was also erected between Lakes Tikitapu and Rotokakahi, thus making the north-eastern boundary of the plantation secure from wild horses and cattle.

Good results have been obtained with the trees planted during the year (for species see Schedule C[3]), and of these the larch has, as usual, made good headway, with a very small proportion of deaths. On the Whakarewarewa Plantation Extension—known as the Waipa Valley—this species was nipped with a late frost on Christmas Day, but the damage was not serious, being confined to the young tender leaves. *Abies Douglasii* transplanted well, but made very little subsequent growth. *Pinus Torreyana* and *Pinus contorta* were planted out experimentally, but the results are not encouraging, due to a very dry spell of weather shortly after they were planted. *Acacia melanoxylon* is undoubtedly a wonderfully quick grower. Many of those planted last spring have made from 2 ft. to 4 ft. of growth. It stands the frost and drought well, and is evidently suited for holding its own amongst the thick undergrowth of fern and tutu which is so common here. It is a valuable Tasmanian timber, commercially known as "blackwood," and, from the results obtained from it, here it is recommended that in future it should be planted more extensively.

In the Eucalypti compartment, *E. amygdalina*, *E. Stuartiana*, and *E. pauciflora* have done well, while *E. obliqua*, *E. Sieberiana*, *E. hæmastoma*, and *E. gigantea* were badly frosted, the latter being killed outright.

Catalpa speciosa: Owing to unseasonable frosts, this tree has not done so well as was expected. As soon as the young growth appeared in the spring this was cut off by the frost, and the trees are in consequence nearly all dead, and those that are alive have a stunted appearance. No further plantings will in future be made with this tree here.

During last winter a large wagon and three strong mares were purchased for carting trees from the Rotorua Nursery.

Maintenance-work: A sum of £408 8d. was spent on clearing the undergrowth from around the young trees. This work is increasing annually, although portions of the plantation have needed no attention in this respect for the past two years. These portions, however, all need to be pruned in order to suppress the double leaders, and this work will be proceeded with shortly.

For the coming planting season preparations are well in hand for planting about 1,000,000 trees, now available in Rotorua Nursery.

Statements of expenditure and values are appended.

W. G. Morrison, Assistant Forester.
H. A. Goudie, Nurseryman in Charge.

Waiotapu Plantation.

(Approximate area, 3,200 acres; altitude, approximate, 1,200 ft.)

The rainfall for the year ending the 31st March, 1906, amounted to 46·63 in., falling on 185 days, the heaviest monthly fall being registered in October, when 7·82 in. was recorded on 21 days. The lowest shade temperature registered was 16 deg. Fahr., or 16 deg. of frost, on four occasions during July and August; and the highest temperature was 86 deg. Fahr. on the 14th January.

The results of prison labour for the year are highly satisfactory. An average daily number of 42·56 prisoners performed work to the value of £2,440 8s. 5d., this showing an average value per man for the year of £57 6s. 9d. The entire work has been performed by prisoners, supervised by warders and two Foresters.

Trees planted during the year number 1,165,253. Of this number 287,240 were planted to replace deaths in former plantings, 1,488 were planted experimentally, and the remainder (876,525) were planted on a new area of 322 acres. This plantation now contains 2,814,179 trees, which occupy an area of 1,215½ acres.

The trees on the whole have done well, with the exception of a number of varieties of Eucalypti, of which only the species *Gunnii* (Hooker) seems to be a decided success. *Acacia melanoxylon*, of which forty trees were planted experimentally, have done exceptionally well, and is thoroughly suited to the soil and climate here.

Robinia pseudo-acacia, although quite hardy, have made very little progress, owing to hares nibbling off the young shoots as they grow. All the species of conifers planted, details of which will be found by referring to Schedule C[3], have done well, and the death-rate amongst these does not amount to more than 5 per cent.

Pruning has been necessary amongst some of the older trees, and was commenced last February with six prisoners. This work requires a great deal of care and discretion, and it is pleasing to note that these men, although only supervised by the Forester in Charge occasionally, have carried out this work in a most satisfactory manner.

Roads and tracks were formed through the land cleared during the year. The total length formed was 115½ chains, 14 ft. wide, but in all cases a strip of land 1 chain in width was reserved

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 Temperature.	Date.	Minimum Temperature.	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 Menzies' 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 Menzies' 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.

RUATANGATA NURSERY, KAMO, NEAR WHANGAREI.

(Area, 65 acres, approximate; altitude, 320ft.)

Forest trees to the number of 652,200, valued at £1,217 3s., now comprise the stock in this nursery. A most favourable season generally prevailed, maintaining a steady growth in all classes of plants. Totara seedlings collected within a radius of eight miles from the nursery were sized and lined in under covered frames. Small lots of *Podocarpus dacrydioides* (white-pine), *Phyllocladus trichamanoides* (tanekaha), *Podocarpus ferruginea* (miro), *Alectryon excelsum* (titoki), *Knightia excelsa* (rewarewa)—in all, approximately, 100,000 trees—were dealt with at an average cost of 4s. per thousand for collecting and "lining in," and, as in previous years, these have made satisfactory progress. It is essential for success that trees so treated be well shaded for at least three months. They require to be lifted and classed, and the majority grown in the nursery for another year, by which time they make splendid roots, and are well fitted to bear transplanting when the time arrives for transferring them to the plantations.

This plan affords some provision against the failure of subsequent seed-crops, and it is also gratifying to find a use at a payable rate for plants, which must inevitably die if left under the parent trees.

During June 50,000 totara, averaging 3 in. in height, were lined out (at the rate of 4s. 8d. per thousand) on volcanic-ironstone land, previously cropped with oats, limed, and well cultivated. Beyond a check from a number of late frosts and the more serious attacks of wireworm, this lot of trees made rapid growth, now averaging 12 in. in height.

An autumn sowing of totara-seed contended against very adverse conditions throughout the winter, with poor results. This is a familiar experience, showing that whilst sometimes much is to be gained, on the other hand considerable risk attends autumn-sowing of tree-seeds here.

In the first week in September, after treatment in pits, the main crop of totara-seed was sown, resulting in a fine sturdy lot of trees, to the number of 250,000, 6 in. high.

Seven pounds of *Sequoia sempervirens* (redwood), sown at the same time, yielded a thin crop of healthy seedlings, all of which are sufficiently large for permanent removal. It is a most difficult matter to secure fresh, sound seed of this valuable timber-tree, and is a matter of regret, as it is well suited to the district.

About 300 lb. of puriri-seed *(Vitex lucens)* was sown in October, after being pitted, 60,000 seedlings being raised, now averaging 9 in. in height, and valued at £1 5s. per thousand. Puriri-trees require another season under nursery treatment in order to build up strength and form a good fibrous-root system, when they transplant well. They bear the hot dry weather splendidly, but succumb to frost in a disappointing manner. This is especially the case when the plants are young and growing in a rich soil, many failures being due to this cause.

Other small sowings of *Pittosporum crassifolium* (karo), *Fraxinus Americana* (white American ash), *Sequoia gigantea* (mammoth tree), *Pseudo-tsuga taxifolia* (Oregon pine), and a few Japanese trees have also given satisfactory results.

The main crop of Eucalypti was sown in December, comprising *E. rostrata*, *E. marginata*, *E. leucoxylon*, *E. paniculata*, *E. siderophloia*, *E. resinifera*, and *E. obliqua*. All these varieties germinated well.

The total number of trees raised on this station since May, 1903, is 934,484, valued at £2,091 13s. 4d. Trees to the number of 158,660, valued at £408 15s. 2d., were transferred to Puhipuhi Plantation during the year, and the number of trees sent out from the nursery since the inception in May, 1903, is 282,284, valued at £874 10s. 4d.

Experimental work, devoted to testing various trees with regard to their general merits, is of great interest. Many years must necessarily elapse before more than a superficial knowledge can be obtained. Even at the present stage, however, such information as has already been acquired is of considerable value.

Under the conditions existing in the present plantations the various Eucalypti planted here two and a half years ago now average 5 ft. in height. Those varieties under observation appearing to be more suited for extensive planting in this district are: *E. amygdalina*, *E. regnans*, *E. rostrata*, *E. resinifera*, *E. Stuartiana*, *E. teretecornis*, *E. obliqua*, *E. maculata*, *E. marginata*, and others. Those yet of undetermined merit are *E. gigantea*, *E. crebra*, *E. siderophloia*, and *E. eugenoides*, these being slow in growth and lacking in vigour. *E. redunca*, *E. virgata*, *E. teretecornis*, and others are severely attacked by the *cicadas* (locust). *E. salegna*, *E. pauciflora*, and *E. capitellata* appear to outgrow their strength. *E. corynocalyx*, *E. maculata*, *E. marginata*, *E. corymbosa* are affected by frost in a young state, the first two being especially delicate to handle in mossing.

Various American oaks are making excellent growth. About 500 *Quercus suber* are now quite established. Well-branched specimens are 3 ft. in height on poor situations. In a few years an ample supply of seed-acorns can be assured. A consignment of cork-acorns, imported direct from Italy, opened in a most unsatisfactory condition, being practically worthless. Repeated experiments of this kind have invariably proved disappointing, so that when a reliable seed-supply can be reckoned on the great difficulty will be met regarding the raising of cork-trees.

Sequoia sempervirens (Californian redwood) continue to grow excellently. Situated on a stony slope, individual trees are 4 ft. in height and sturdy in proportion, having made 18 in. of new growth this season.

Poor results so far have attended the *Catalpa speciosa*. The trees suffered from uncongenial surroundings and the attacks of numerous insects.

Native trees are thriving, although some grow very slowly, the average height of three-year-old totaras being 2 ft. 6 in. Taken as a whole, all the trees are in a thriving condition.

Considerable labour has been expended on general formation-work during the year, necessary in order to bring the land under workable conditions, by breaking up new land, removing stony

outcrops, forming stone draining with the material, levelling and filling in depressions, and improving roads.

Fourteen acres of land were well worked last winter—1 ton of lime applied per acre—and 12 acres sown with Algerian oats and rye-corn, resulting in a return of about 40 tons of chaffing-sheaves, saved in good order. The balance of the land was utilised in growing Italian rye-grass, maize, and carrots, each of which yielded heavy crops.

A strong rick, 26 ft. by 20 ft. by 18 ft., with a lifting roof on pulleys, was erected in sections, to permit removal, the whole work costing in labour and material about £25.

One hundred light seed-frames, 18 ft. by 6 ft., were constructed, costing in labour and material about 11s. each.

General maintenance-work has formed a heavy item in the year's work. The clearing of creeks of watercress and the suppression of gorse and other weeds was a continuous labour.

Arrangements are well forward to provide a substantial nursery-building, which will be probably erected before the winter months.

During the year rain fell on 157 days, with a total fall of 52·61 in., the heaviest monthly fall being 7·41 in October. The maximum temperature registered was 89 deg. Fahr., on the 11th December, and the lowest, 26 deg., on the 11th August.

Heavy thunder-storms occurred in the spring, followed by cold winds and changeable weather. With this exception, the year has been remarkable for well-distributed rain and the equable changes in the seasons.

I have to thank the staff for the assistance I have received from them in carrying out the year's work.

The number of hands employed during the year was five men and six lads.

Details of expenditures and values and schedules of trees are appended.

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

Month.	Rainfall.	Number of Days Rain fell.	Maximum Temperature.	Date.	Minimum Temperature.	Date.
1905.	Inches.		Degrees.		Degrees.	
April	2·17	9	81	3rd	31	10th
May	4·77	14	70	29th	32	7th, 19th
June	4·05	20	66	9th	33	6th, 19th
July	3·25	15	75	15th	31	20th
August	7·13	13	67	31st	26	11th
September	4·56	21	69	10th	33	24th
October	7·41	19	80	25th	32	14th
November	3·57	14	85	30th	34	12th
December	2·55	6	89	11th	38	3rd
1906.						
January	3·78	7	85	25th	38	2nd
February	4·81	8	83	2nd	38	27th
March	4·56	11	81	15th	34	2nd
Totals	52·61	157	...	...	...	...

L. J. ADAMS,
Nurseryman in Charge.

PUHIPUHI PLANTATION, WHAKAPARA.

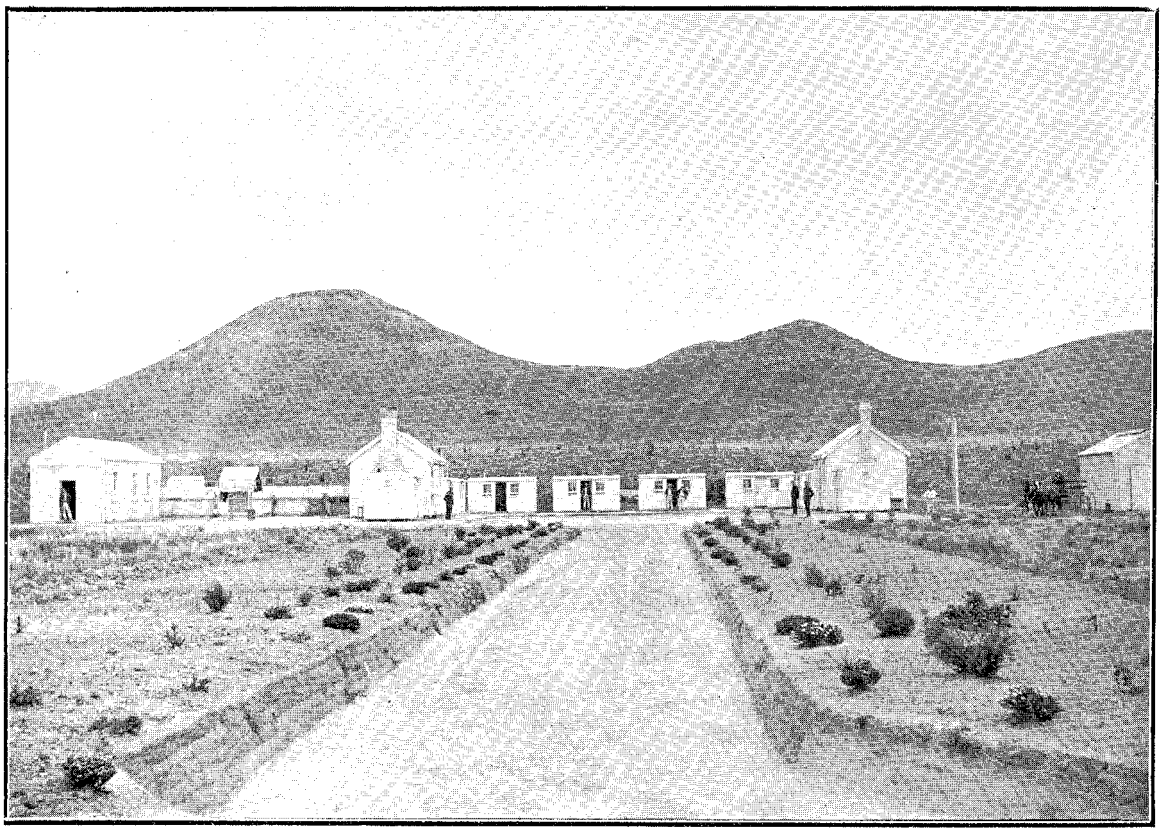
(Area, 1,121 acres; altitude, 1,000 ft.)

Great changes are evident at this station by the country being cleared of the useless timber over at least 400 acres of the reserve and on the adjoining block of 250 acres. The bulk of this work was let by contract at the rate of 4s. 6d. per acre. Clearing and burning other growth has cost 3s. per acre. Approximately, 122,000 totara and 135,000 Eucalypti of tested merit are now planted at 8 ft. apart. Upwards of 12,000 acorns were planted *in situ* last season, on the steep spurs facing the north, at the cost of 16s. per thousand. This fills in all the land that it is desirable to plant on this block, most of the balance being covered with native bush.

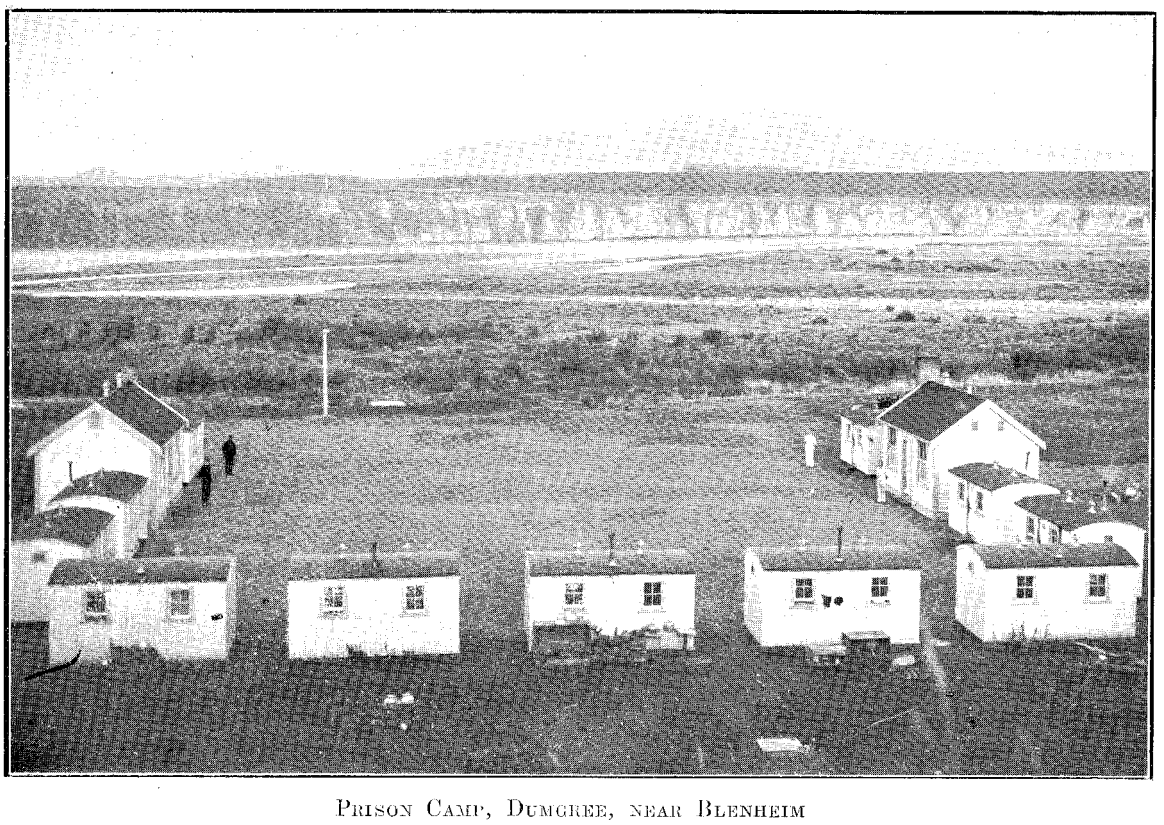
A large number of trees died owing to the dry season of 1904–5, and these were replaced at a cost of £2 per thousand. On steep hillsides the heavy rains wash the loose soil from the roots of the trees, leaving them exposed to a hot sun, and the fact that totara is more susceptible to drought than exotic trees generally grown accounts for this loss.

Last planting-season 181,847 pits were dug, at an average cost of 16s. 6d. per thousand.

Trees to the number of 137,860 were planted, at an average cost 15s. per thousand, including the distribution of the trees to the planters. On steep rough country where kauri logs are strewn in all directions this work is one of considerable expense. It has been found most expedient to pack the mossed trees in cylinder-shaped crates, these being 2 ft. 6 in. long, made of three iron hoops, 1 in. by ¼ in. iron, 14 in. in diameter, pierced with six holes, on which 2 in. by 1 in. battens are bolted. The ends of the crates are laced with wire, and the inside lined with sacking-material, leaving a space open to put in the trees. A well-packed crate will hold about 1,000 trees, and remain three or four days without fear of heating. Two crates placed on a pack-saddle form a convenient load for an average horse, and can thus be conveyed about the plantation.



Prison Camp, Waipa, near Rotorua.



Prison Camp, Dumgree, near Blenheim

A small temporary nursery was formed as a depot for "heeling in" trees, so that the work can proceed without interruption whilst roads are unfit for carting.

In regard to the condition of the trees, totara seem fairly well established, but so far their growth is somewhat slow, except in the most favoured places. At the same time, it may be said that many of the trees were planted as first-year seedlings, and they have survived rather trying conditions. Experience shows that it is necessary to line out the trees one year in the nursery before transferring them to the plantation.

The cost of maintaining the trees is from 10s. to 14s. per thousand, as the fern grows very fast all the year round.

The various Eucalypti have grown well, with the exception of *E. corymbosa* and *E. corymocalyx*, which are repeatedly cut down by frost. *E. crebra* and *E. siderophlia* do not succeed particularly well. The growth of the remaining species named is very satisfactory, and they now average 2 ft. in height, while specimens of *E. rostrata* and *E. redunca* have attained a height of 9 ft. in two years. *E. resinifera* (the red mahogany) excels all others, although subjected to similar conditions, being firm, sturdy, and very hardy in its growth; it bears all the treatment of wrenching, mossing, and transplanting well, and appears quite at home in the Puhipuhi soil and climate. It is also known as the "Botany Bay gum." The timber is very durable, and is used extensively in ship-building and wood-paving.

There still remains a quantity of useful kauri timber lying about the reserve which might be profitably utilised. This timber is fast becoming scarce, and is consequently of more value, and it is believed that at the present rate at which it is sold it would pay to convert these previously discarded logs by means of a portable sawmill.

Owing to the low-lying land along the Kaimamaku River being periodically flooded, it has not been planted, and as a matter of precaution the plantation-fence was erected well above the high-water mark. The area thus excluded is considerable, and is overrun at present by the settlers' stock. It is therefore desirable that this be leased for grazing, as the fences are liable to be damaged by cattle, and under a lease tenure the lessee would be required to subscribe towards the upkeep of the fences.

As no record of rainfall and temperature was taken until September last, this information is of little value this season.

Forward preparations are now in progress to receive this season's output of trees from Ruatangata Nursery on a recently resumed area of 250 acres.

Average number of men employed daily during the year, nine.

Details of values and expenditure are appended.

CHAS. HOOPER, Assistant Forester.
L. J. ADAMS, Nurseryman in Charge.

STATEMENT OF EXPENDITURE TO THE 31ST MARCH, 1906.

Eweburn Nursery.

	£	s.	d.
Amount at the 31st March, 1905	7,030	13	11
Tree-growing	312	9	3
General maintenance	197	7	8
Nursery-formation	34	16	6
Horse-shoeing and general repairs	85	16	2
Horse-feed	24	4	3
Tree-seeds	38	16	0
Tools, implements, &c.	2	4	3
Fuel and freight	8	1	8
Buildings—stable and sizing-shed (new)	173	4	1
Supervision	18	5	0
	£7,925	18	9

Tapanui Nursery.

	£	s.	d.
Amount at the 31st March, 1905	10,350	15	10
Tree-growing	681	4	5
General maintenance	351	1	6
Horse-shoeing and general repairs	27	6	5
Horse-feed purchased and grown	93	12	11
Manures	7	6	8
Tree-seed	78	10	2
Tools, implements	51	9	9
Buildings—sizing-shed and part Nurseryman's cottage	186	12	0
Miscellaneous works	1	2	8
Supervision	38	11	0
	£11,867	13	4

Starborough Nursery.

	£	s.	d.
Amount at the 31st March, 1905	5,160	17	4
Tree-growing	509	3	2
Maintenance	201	8	9
Nursery-formation	81	8	5
Buildings	181	5	9
Fencing	26	6	3
Water-supply	6	16	7
Tools and implements	60	13	5
Horse-feed	80	18	4
Tree-seeds	72	2	9
Horse-shoeing and general repairs	52	5	10
Manures	11	9	3
Miscellaneous works	40	10	6
Supervision	38	2	6
	£6,523	8	10

Hanmer Springs Nursery.

	£	s.	d.
Amount at the 31st March, 1905	1,042	14	0
Tree-growing	275	3	1
Nursery-formation	35	18	9
Horse-shoeing and general repairs	3	10	6
Horse-feed	36	4	9
Manures	4	2	5
Tree-seeds	50	15	2
Tools and implements	12	19	5
Seed-frames	15	17	9
Water-supply	4	3	2
Miscellaneous	18	15	0
Supervision	28	4	0
	£1,528	8	0

Rotorua Nursery.

	£	s.	d.
Amount at the 31st March, 1905	13,935	14	10
Tree-growing	1,782	18	10
Nursery-formation	368	0	1
Horse-feed	110	13	6
Horse-shoeing and general repairs	216	9	1
Manures	77	8	2
Tools and implements	25	5	0
Tree-seeds	189	8	5
Water-supply, extension of	5	16	3
Fencing	17	9	0
Buildings — Nurseryman's cottage, additions to stable, men's quarters and smithy	662	10	6
Erection of bridge—part cost	154	3	0
Clerical work	147	19	9
Miscellaneous works	22	0	9
Supervision	47	10	0
	£17,763	7	2

Ruatangata Nursery.

	£	s.	d.
Amount at the 31st March, 1905	1,586	8	11
Nursery-formation	210	1	5
Tree-seeds purchased and collected	47	19	2
Tree-growing	372	0	5
Experimental work	19	5	11
General maintenance	262	19	7
Tools—purchase and freight	27	3	2
Miscellaneous works	12	8	7
Horse-shoeing and general repairs	4	5	9
Horse-feed purchased	10	1	0
Crops—labour and material	128	12	2
Manures	28	2	0
Seed-frames	64	9	2
Buildings	91	0	7
Supervision	26	5	0
	£2,891	2	10

Naseby Survey Paddock Plantation.	£	s.	d.
Amount at the 31st March, 1905	1,669	17	2
Tree-planting	16	7	9
Carting trees	2	12	6
General maintenance	47	18	2
Proportion of Nurseryman's salary	15	13	4
Supervision	4	10	0
	£1,756	18	11

Gimmerburn Reserve.	£	s.	d
Amount at the 31st March, 1905	687	4	1
Tree-planting	115	0	2
Pitting	16	17	0
Heeling in trees	5	16	0
Carting trees	16	4	0
Erection of men's huts	57	3	9
Carting, sowing, and supply of oats	26	17	0
General maintenance	17	13	3
Proportion of Nurseryman's salary	41	0	0
Supervision	13	8	0
	£997	3	3

A portion of this reserve was leased for cropping, and rental amounting to £69 19s. 6d. was received during the year. The rental thus received to date amounts to £402 7s. 6d.

Dusky Hill Plantation.	£	s.	d.
Amount at the 31st March, 1905	7,529	18	4
Digging 77,468 pits for tree-planting	76	7	6
Planting 70,075 trees	64	1	6
Preparing ground and planting 21,950 acorns	16	0	4
Tree-seed—acorns, and railage	2	0	0
Cartage of trees from Tapanui Nursery	3	7	6
General maintenance	230	0	2
Tools, implements	15	15	0
Cutting and burning scrub	29	12	6
Forming track	3	11	6
Miscellaneous works	8	17	0
Nurseryman's salary (proportion)	15	0	0
Supervision	22	13	0
	£8,017	4	4

Conical Hills Plantation.	£	s.	d.
Amount at the 31st March, 1905	3,627	13	4
Digging 464,070 pits for tree-planting	619	19	3
Digging 98,689 grubber-pits...	106	3	9
Planting 623,000 trees	470	0	3
Preparing ground and planting 239,600 acorns...	170	19	6
Tree-seeds—acorns, and railage	20	15	9
Cutting and burning scrub	14	5	11
Cartage of trees from Tapanui Nursery	17	12	6
General maintenance	246	17	9
Road-formation	98	1	2
Tools and implements	11	15	1
Miscellaneous works	19	17	0
Nurseryman's salary (proportion)	30	0	0
Supervision	46	9	0
	£5,500	10	3

Waitahuna Plantation.	£	s.	d.
Grubbing and burning gorse...	6	14	0
Fencing—labour and part material	25	7	7
Miscellaneous works, travelling-expenses, &c.	5	8	0
Nurserymen's salary (proportion)	2	0	0
	£39	9	7

Hanmer Springs Plantation.

	£	s.	d.
Amount at the 31st March, 1905	2,124	1	6
Marking pits	129	13	9
Tree-planting	11	0	0
Draining	28	11	11
Buildings	23	18	10
Tools, implements, &c.	47	19	3
Fencing material	49	17	3
General maintenance	16	9	0
Miscellaneous	22	19	9
Acorns—purchase and freight	9	0	0
Horse-shoeing and general repairs	1	15	0
Proportion of Nurseryman's salary	70	16	0
Supervision	31	7	0
	£2,567	9	3

Dumgree Plantation.

	£	s.	d.
Amount at the 31st March, 1905	4,890	15	2
Digging 268,513 pits	678	7	8
Planting 214,725 trees	237	19	2
Digging trenches and heeling in trees	10	17	0
Cartage of trees	29	5	0
General maintenance	22	15	0
Tools and implements	100	6	3
Supervision of prison labour	85	8	6
Supervision of free labour	51	8	6
Improvements by labour	65	5	1
Portion of Nurseryman's salary	21	16	8
Supervision	46	11	0
	£6,240	15	0

NOTE.—Revenue amounting to £84 8s., for sale of flax and rental, was received during the year at this station.

Waiotapu Plantation.

	£	s.	d.
Amount at the 31st March, 1905	2,472	18	11
Carting trees	44	5	0
Horse-feed	71	2	8
Fencing	20	18	0
Tools, implements, &c.	19	16	8
Buildings—smithy	5	9	1
Horse-shoeing and general repairs	26	8	11
Erection of bridge—part cost	133	6	8
Supervision of prison labour (Foresters' salaries)	294	5	6
Proportion of Nurseryman's salary and travelling-expenses	24	13	10
Supervision	44	6	0
	£3,157	11	3

Whakarewarewa Plantation.

	£	s.	d.
Amount at the 31st March, 1905	5,101	4	9
Clearing land	219	11	6
Pitting for tree-planting	725	1	9
Tree-planting	147	10	8
Fencing	68	8	4
Road-making	20	15	6
Carting trees	44	2	0
Maintenance of plantation	846	4	4
Horse-feed	88	0	8
Tools, implements, &c.	229	8	2
Buildings—alterations and additions to workshop	10	1	5
Erection of bridge—part cost	89	6	11
Supervision of prison and free labour	124	2	0
Proportion of Nurseryman's salary	102	3	7
Miscellaneous	2	14	4
Supervision	38	4	0
	£7,856	19	11

Kaingaroa Plains Plantations (4).

	£	s.	d.
Amount at the 31st March, 1905	318	13	0
Proportion of Nurseryman's salary and travelling-expenses ...	4	0	0
	£322	13	0

Puhipuhi Plantation.

	£	s.	d.
Amount at 31st March, 1905	733	14	11
Buildings, new and additions to old	28	5	1
Pitting, 181,849, at 16s. 6d.	151	2	11
Clearing and burning	306	11	9
Tree-planting	161	7	9
Freight and cartage on trees	14	3	5
Tools, implements, crates, &c.	135	7	5
Fencing—material and labour	26	16	0
General formation	28	7	9
Horse-shoeing and general repairs	2	10	6
General maintenance	215	15	4
Nurseryman's salary—proportion of, and travelling-expenses, &c.	23	2	3
Supervision	38	15	0
	£1,866	0	1

Kurow Nursery.

	£	s.	d.
Cost of land and buildings	£750	0	0

STATEMENT OF VALUES FOR YEAR ENDING 31ST MARCH, 1906.

Eweburn Nursery.

	£	s.	d.	£	s.	d.	£	s.	d.
Amount at the 31st March, 1905				5,500	6	6			
Less value of trees ...	1,684	7	2						
" horse-feed ...	28	6	0						
				1,712	13	2			
							3,787	13	4
Trees as per Schedule A							238	16	9
" A^1							543	15	0
" A^2							890	2	0
" A^3							410	2	0
Tools, implements, &c.							2	4	3
Nursery-formation							34	16	3
Horse-feed in stock							44	4	0
Improved value							215	12	8
Buildings—stable, sizing-shed, &c.							173	4	1
							£6,340	10	7

Tapanui Nursery.

	£	s.	d.	£	s.	d.
Amount at the 31st March, 1905	13,683	13	7			
Less value of trees	7,835	2	5			
				5,848	11	2
Trees as per Schedule B				714	7	6
" B^1				1,783	13	6
" B^2				1,510	12	6
" B^3				2,446	14	9
Tools, implements, &c.				51	9	9
Buildings				186	12	0
Improved value				405	15	2
Value of foal bred				10	0	0
Horse-feed in stock				125	10	10
				£13,083	7	2

Starborough Nursery.

	£ s. d.	£ s. d.	£ s. d.
Amount at the 31st March, 1905		6,636 17 9	
Less tools written off	7 0 6		
" trees D to D^3	2,842 18 0		
" horse-feed	144 4 2		
		2,994 2 8	
			3,642 15 1
Trees as per Schedule D		... ...	870 17 6
" D^1		... ...	760 10 0
" D^2		... ...	797 10 0
" D^3		... ...	1,379 8 9
Tools and implements		... ...	60 13 5
Water-supply		... ...	6 16 7
Fencing		... ...	26 6 3
Buildings...		... ...	181 5 9
Nursery-formation		... ...	81 8 5
Improved value by labour, &c.		... ...	270 1 3
Increased value of one colt and one filly, two years old, at £5 each			10 0 0
Value of one yearling filly		... ...	10 0 0
Horse-feed in stock		... ...	133 0 0
			£8,230 13 0

Hanmer Springs Nursery.

	£ s. d.	£ s. d.	£ s. d.
Amount at the 31st March, 1905		2,051 18 11	
Less value of trees	1,434 1 3		
" horse-feed ...	25 0 0		
		1,459 1 3	
			592 17 8
Trees as per Schedule E		... ...	759 5 0
" E^1		... ...	1,132 5 2
" E^2		... ...	376 15 0
" E^3		... ...	61 4 7
Tools and implements		... ...	12 19 5
Water-supply		... ...	4 3 2
Nursery-formation		... ...	35 18 9
Seed-frames, new		... ...	15 17 9
Horse-feed in stock		... ...	15 0 0
Improved value by labour		... ...	28 4 0
			£3,034 10 6

Rotorua Nursery.

	£ s. d.	£ s. d.	£ s. d.
Amount at the 31st March, 1905		17,464 7 7	
Less value of trees ...	13,014 18 5		
" horse-feed ...	6 0 0		
" tools written off	25 4 1		
		13,046 2 6	
			4,418 5 1
Trees as per Schedule C		... ...	4,529 10 6
" C^1		... ...	2,722 1 0
" C^2		... ...	3,442 16 0
" C^3		... ...	6,281 13 8
Formation of nursery		... ...	368 0 1
Tools and implements purchased		... ...	25 5 0
Water-supply, Extension of		... ...	5 16 3
Fencing		... ...	17 9 0
Buildings—new and additions to old ones ...		... ...	662 10 6
Bridge, Part value of		... ...	154 3 0
Horse-feed in stock		... ...	15 0 0
Improved value by labour		... ...	47 10 0
			£22,690 0 1

Ruatangata Nursery.

	£ s. d.	£ s. d.	£ s d.
Amount at the 31st March, 1905		2,237 13 1	
Less value of trees	1,119 16 6		
" horse-feed ...	40 0 0		
		1,159 16 6	
			1,077 16 7
Trees as per Schedule F			811 13 0
" F^1			405 10 0
" F^2			408 15 2
Nursery-formation			210 1 5
Tools and implements			27 3 2
Seed-frames			64 9 2
Buildings			91 0 7
Horse-feed in stock			136 0 0
Improved value			320 19 1
			£3,553 8 2

Naseby Survey Paddock Plantation.

	£ s. d.
Amount at the 31st March, 1905	3,275 17 6
Trees as per Schedule A^8	46 4 0
Tree-planting	16 7 9
Carting trees	2 12 6
Improved value by labour	68 1 6
Increased value	115 14 4
	£3,524 17 7

Gimmerburn Reserve.

	£ s. d.	£ s. d.
Amount at the 31st March, 1905...	1,239 17 0	
Less trees charged in error 1904–5 ...	26 16 5	
		1,213 0 7
Trees as per Schedule A^8		350 15 6
Cartage of trees		16 4 0
Tree-planting		115 0 2
Pitting		16 17 0
Heeling in trees		5 16 0
Men's huts		57 3 0
Oats—2,176 bushels, at 2s. per bushel		217 12 0
Improved value by labour		72 1 3
		£2,064 10 3

Dusky Hill Plantation.

	£ s. d.
Amount at the 31st March, 1905	17,519 9 2
Trees planted as per Schedule B^8	209 11 10
Trees raised from seed—21,950	43 9 1
Cartage of trees from nursery	3 7 6
Planting trees	64 1 6
Pitting	76 7 6
Tools, implements	15 15 0
Improved value by labour	309 14 2
Increased value	688 6 4
	£18,930 2 1

Conical Hills Plantation.

	£ s. d.
Amount at the 31st March, 1905	7,313 6 1
Trees planted as per Schedule B^8	1,849 7 6
Trees raised from seed—239,600	470 9 6
Cartage of trees from nursery	17 12 6
Planting trees	470 0 3
Pitting	726 3 0
Tools, implements, &c.	11 15 1
Improved value by labour	455 10 10
Increased value	349 19 7
	£11,664 4 4

Waitahuna Plantation.

	£ s. d.
Fencing	25 7 7
Improved value by labour	14 2 0
	£39 9 7

Hanmer Springs Plantation.

	£	s.	d.	£	s.	d.
Amount at the 31st March, 1905				4,764	14	5
Trees, as per Schedule E[8]				190	16	10
Tools, implements, &c.				47	19	3
Fencing—material				49	17	3
Buildings				23	18	10
Free labour—						
Marking pits	129	13	9			
Planting trees	11	0	0			
Draining	28	11	11			
				169	5	8
Prison labour—						
Pitting	229	9	0			
Clearing scrub	88	6	8			
Tree-planting	23	6	3			
Marking pits	1	0	10			
Building tool-house and implement-shed	8	3	9			
Improvements by labour	153	7	1			
				503	13	7
Improved value by labour				118	12	0
Increased value				210	15	9
				£6,079	13	7

Raincliff Plantation.

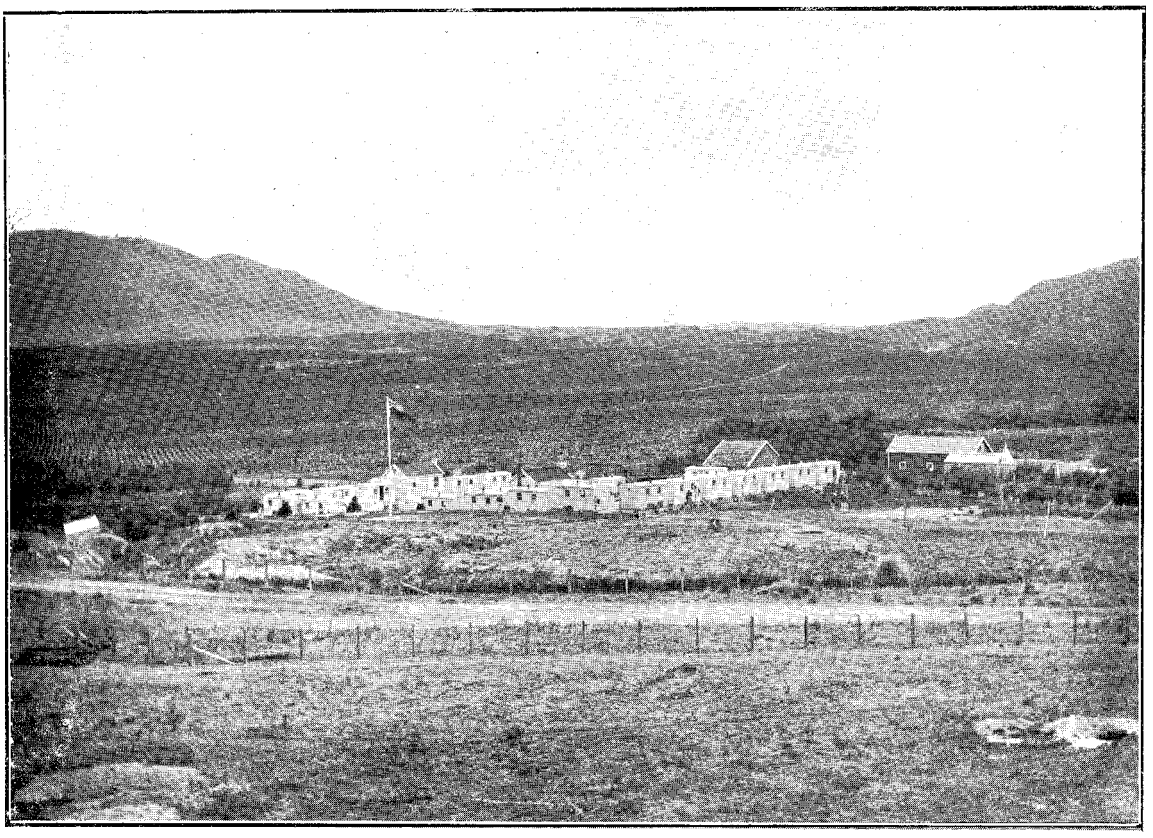
	£	s.	d.
Amount at the 31st March, 1905	1,305	19	7
Increased value	61	15	4
	£1,367	14	11

Dumgree Plantation.

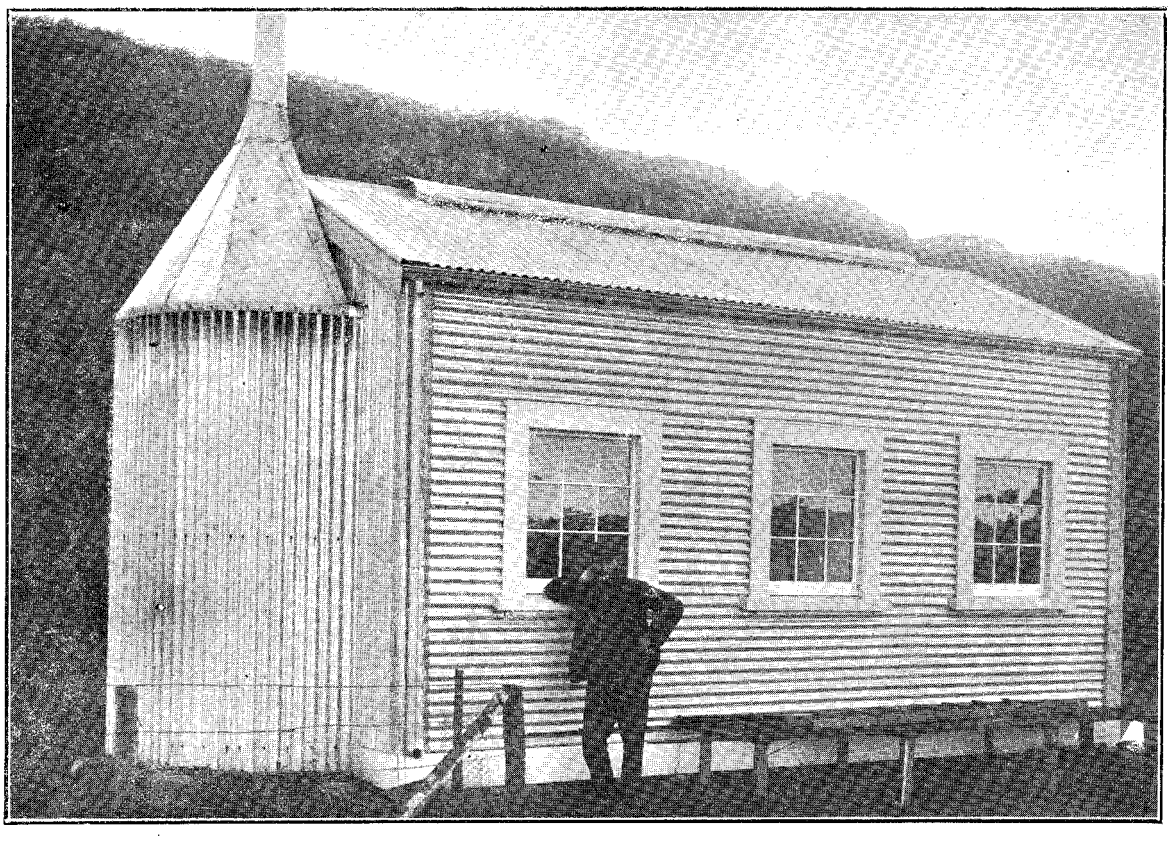
	£	s.	d.	£	s.	d.
Amount at the 31st March, 1905	5,830	13	8			
Less tools written off	8	11	1			
				5,822	2	7
Trees planted as per Schedule D[8]				1,244	10	3
Cartage of trees				29	5	0
Digging 268,513 pits				678	7	8
Planting 214,725 trees				237	19	2
Digging trenches and heeling in trees				10	17	0
Tools and implements				100	6	3
Improvements by labour				87	1	9
Supervision of prison labour				85	8	6
Supervision of free labour				51	8	6
General maintenance				69	6	0
Prison labour—						
Digging 158,025 pits	332	17	6			
Reopening 11,000 pits	7	13	1			
Planting 146,150 trees	159	3	8			
Pit-marking, 174,085	50	2	7			
Roadmaking, 63 chains	60	4	6			
Digging trenches and heeling in 285,750 trees	50	6	6			
Pruning and clearing around trees	108	18	0			
				769	5	10
Increased value				59	10	0
				£9,245	8	6

Waiotapu Plantation.

	£	s.	d.	£	s.	d.
Amount at the 31st March, 1905	11,222	15	6			
Less tools written off	28	9	2			
				11,194	6	4
Trees, as per Schedule C[8]				3,151	2	8
Carting trees				44	5	0
Fencing				20	18	0
Tools and implements, &c.				19	16	8
Buildings				5	9	1
Bridge (part value)				133	6	8
Improved value by labour				363	5	4
Value of prison labour—						
Clearing for tree-planting	997	0	0			
Pitting	732	17	6			
Planting	329	5	10			
Roading	28	5	0			
Fencing and draining	14	12	6			
Miscellaneous improvements	180	0	0			
				2,282	0	10
Horse-feed in stock				15	0	0
Increased value				389	8	9
				£17,618	19	4



PRISON CAMP, WAIOTAPU.



TYPE OF WORKSHOP ERECTED AT PRISON CAMP.

Whakarewarewa Plantation.

	£ s. d.	£ s. d.
Amount at the 31st March, 1905	9,825 15 4	
Less tools written off	16 9 2	
		9,809 6 2
Trees, as per Schedule C[3]	...	3,067 6 6
Clearing land	...	219 11 6
Pitting for tree-planting	...	725 1 9
Tree-planting	...	147 10 8
Fencing	...	68 8 4
Roadmaking	...	20 15 6
Carting trees	...	44 2 0
Tools and implements, &c.	...	229 8 2
Buildings and additions to	...	10 1 5
Bridge (part value)..	...	89 6 11
Improved value by labour	..	1,110 13 11
Value of prison labour—	£ s. d.	
Clearing for tree-planting	317 9 8	
Forming horse-paddock...	51 17 0	
Pitting for tree-planting	13 13 9	
Tree-planting	240 7 3	
Roading	23 4 6	
Fencing and draining	14 6 6	
Miscellaneous works	57 9 8	
		718 8 4
Horse-feed in stock	...	10 0 0
Increased value	...	359 13 9
		£16,629 4 11

Kaingaroa Plains Plantations.

	£ s. d.	£ s. d.
Amount at the 31st March, 1905	580 18 10	
Less tools written off	6 5 0	
		574 13 10
Improved value by labour	...	4 0 0
Increased value	...	22 19 9
		£601 13 7

Puhipuhi Plantation.

	£ s. d.
Amount at the 31st March, 1905	1,216 3 7
Trees, as per Schedule F[2]	408 19 2
Trees raised *in situ*—12,600 acorns, at £1 5s. per 1,000	15 15 0
Pitting	151 2 11
Clearing and burning	306 11 9
Tree-planting and freight on trees	175 11 2
Tools, implements, &c.	135 7 5
Fencing	26 16 0
General formation	28 7 9
Buildings (new) and additions to old ones	28 5 1
Improved value	277 12 7
Increased value	39 12 2
	£2,810 4 7

Kurow Nursery.

	£ s. d.
Value of land and buildings	£750 0 0

REFERENCE-LIST OF FOREST TREES AND SHRUBS GROWN AT THE VARIOUS NURSERIES AND PLANTATIONS, 1905–6. (E, EVERGREEN; D, DECIDUOUS.)

Name of Tree.	Synonym.	Common Name.	Habitat.
Acacia melanoxylon (E) ..	..	Blackwood	South-east Australia.
Acer saccharum (D) ..	Acer saccharinum ..	Sugar-maple	North America.
„ pseudo-platanus (D) ..	..	Sycamore	Europe and Asia.
Æsculus hippocastanum (D)	..	Horse-chestnut	South-east Europe.
Alectryon excelsum (E) ..	..	Titoki	New Zealand.
Alnus glutinosa (D) ..	..	Alder	Europe and Asia.
Benthamia fragifera (E) ..	..	Indian strawberry	India.
Betula alba (D)	..	Silver-birch	Europe.
Berberis aristata (D) ..	..	Barberry	Northern India.
Castanea sativa (D) ..	Castanea vesca ..	Sweet or Spanish chestnut ..	Europe and Asia.
Catalpa speciosa (D) ..	Bignonia catalpa ..	Hardy catalpa	United States.
Cerasus lauro-cerasus (E) ..	..	Common laurel	Levant.
Chamæcyparis Lawsoniana (E)	Cupressus Lawsoniana	Lawson's cypress, or white-cedar	Northern California.
Chamæcyparis thyoides (E)	Retinospora ericoides	White-cedar	Eastern United States.
Cordyline Hookerii (E) ..	Dracæna Hookerii ..	Toi	North Island, New Zealand.
„ Australis (E) ..	„ Australis ..	Ti, or cabbage-tree ..	New Zealand.
„ indivisa (E) ..	„ indivisa ..	Toi	South Island, New Zealand.
Corokia buddleoides (E) ..	..	Korokia	New Zealand.
Corylus avellana (D)	..	Filbert	Britain.
Corynocarpus lævigata (E)	..	Karaka, New Zealand laurel	New Zealand.
Cotoneaster Simonsii (E) ..	..	Rockspray	Unknown.
Eucalyptus amygdalina (E)	..	Almond-leaved peppermint-gum	Victoria, New South Wales, and Tasmania.
„ calophylla (E)	..	Red-gum	South-west Australia.
„ capitellata (E)	..	Head-flowered stringy-bark	New South Wales and Gippsland.
„ corymbosa (E)	..	Bloodwood	New South Wales and South Queensland.
„ coccifera (E) ..	..	Mountain-peppermint ..	Alpine districts of Tasmania.
„ corynocalyx (E)	..	Sugar-gum	South-east Australia.
„ crebra (E) ..	..	Narrow-leaved ironbark ..	New South Wales and Queensland.
„ ficifolia (E) ..	..	Scarlet-flowering gum ..	South-west Australia.
„ globulus (E) ..	..	Blue-gum	Tasmania and Victoria.
„ Gunnii (E) ..	..	Cider-gum	Victoria, New South Wales, and Tasmania.
„ hæmastoma (E)	..	Gum-topped stringy-bark ..	Tasmania and Victoria.
„ leucoxylon (E)	Eucalyptus sideroxylon	Victorian red ironbark ..	South Australia.
„ macrorhyncha (E)	..	Stringy-bark of Victoria ..	Victoria.
„ marginata (E) ..	..	Jarrah	South-west Australia.
„ Muellerii (E) ..	..	Mountain red-gum ..	Mountains of Tasmania.
„ maculata (E) ..	..	Spotted gum	New South Wales and Queensland.
„ obliqua (E) ..	..	Stringy-bark or messmate ..	Victoria, New South Wales, Tasmania.
„ pauciflora (E) ..	Eucalyptus coriacea ..	White or drooping gum ..	Ditto.
„ paniculata (E)	„ fasciculosa	Red ironbark	New South Wales and South-west Australia.
„ pilularis (E) ..	..	Blackbutt	New South Wales, Queensland, and Gippsland.
„ regnans (E) ..	..	Swamp-gum	Tasmania and Victoria.
„ saligna (E) ..	..	Grey or flooded gum ..	New South Wales and South Queensland.
„ Stuartiana (E)	..	Apple-scented gum ..	Tasmania and South-east Australia.
„ Sieberiana (E)	Eucalyptus virgata ..	Yowut, mountain ash ..	Ditto.
„ siderophloia (E)	„ persicifolia	Sydney ironbark	Eastern Queensland and Port Jackson.
„ teretecornis (E)	..	Red-gum of Queensland ..	New South Wales and Gippsland
„ urnigera (E) ..	..	Urn-bearing gum	Tasmania.
„ reduncа (E) ..	..	The wando or white-gum ..	Western Australia.
„ resinifera (E) ..	..	Red or forest mahogany ..	New South Wales and Queensland.
„ viminalis (E) ..	..	Swamp or manna gum ..	Tasmania and Victoria.
Eleagnus Japonica (E) ..	..	Wild olive	Japan.
Escallonia macrantha (E) ..	..	Chilian gum-box	Chili.
Fraxinus Americana (D) ..	Fraxinus Acuminata, F. alba	White American ash ..	Eastern United States.
Fraxinus excelsior (D) ..	..	English ash	Europe and Asia.
Fagus fusca (E)	..	Red beech or birch ..	New Zealand.
„ Solandri (E) ..	..	Red, white, black, or brown birch	„
Fagus sylvatica (D) ..	..	Beech	Europe.
Griselinia littoralis (E) ..	..	Broadleaf, papauma ..	New Zealand.
Hikora ovata (D)	Carya alba	Shagbark, hickory ..	Eastern North America.
„ pecan (D) ..	„ olivæformis ..	Pecan-nut	„
Juglans cineria (D ..	..	Butternut	„
„ nigra (D) ..	..	Black walnut	„
„ regia (D) ..	..	Walnut	Europe and Asia.
Juniperus Virginiana (E ..	Juniperus Barbadensis	Red cedar	North America.
Knightia excelsa (E) ..	..	Rewarewa or honeysuckle ..	North New Zealand.
Larix Europæa (D) ..	Pinus larix	European larch	Europe.
Liriodendron tulipiferum (D)	..	Tulip-tree, basswood ..	United States.
Laburnum vulgare (D) ..	Cytisus laburnum ..	Laburnum	Europe.
Ligustrum lucidum (E) ..	..	Shiny-leaved privet ..	China.

REFERENCE-LIST OF FOREST TREES AND SHRUBS GROWN AT THE VARIOUS NURSERIES AND PLANTATIONS, 1905–6. (E, EVERGREEN; D, DECIDUOUS)—*continued.*

Name of Tree.	Synonym.	Common Name.	Habitat.
Myoporum lætum (E) ..	..	Ngaio	New Zealand.
Melicytus lanceolatus (E) ..	..	Narrow-leaved hinehine ..	"
Metrosideros tomentosa (E)	..	Pohutukawa	North Island, New Zealand.
" lucida (E) ..	..	Southern rata	South Island, New Zealand.
Olearia Fosterii (E) ..	Shawia paniculata ..	Golden-akeake	New Zealand.
" Traversii (E) ..	..	Akeake	Chatham Islands.
Phormium tenax (E) ..	..	Flax	New Zealand.
Phyllocladus trichomanoides (E)	..	Tanekaha	"
Picea excelsa (E)	Abies excelsa ..	Norway spruce	Europe.
" sitchensis (E) ..	" Menziesii ..	Tideland spruce	Alaska, Northern Canada.
" Canadensis (E) ..	..	White-spruce	North-east United States.
Pinus Austriaca (E) ..	..	Austrian pine	Southern Europe.
" Canariensis (E) ..	..	Canary pine	Canary Islands.
" contorta (E) ..	Pinus Murrayana, Pinus Bolanderi	Twisted pine	Alaska to California.
" Coulterii (E) ..	Pinus macrocarpa ..	Great-coned pine	California.
" excelsa (E) ..	" pendula ..	Himalayan pine	Himalayan Mountains.
" flexilis (E)	..	Limber pine	Rocky Mountains, Sierra Nevada.
" halepensis (E) ..	..	Aleppo pine	Levant.
" Lambertiana (E) ..	..	Sugar-pine	Northern California, Oregon.
" Laricio (E) ..	..	Corsican pine	Southern Europe.
" muricata (E) ..	..	Prickly-coned or Bishop's pine	California.
" ponderosa (E) ..	..	Heavy or bull pine ..	North-west America.
" ponderosa, var. Benthamiana (E)	..	Bentham's yellow-pine ..	British Columbia.
" pinaster (E) ..	Pinus maritima ..	Cluster-pine	Southern Europe.
" radiata (E) ..	" insignis ..	Monterey pine	California.
" rigida (E)	..	Pitch-pine	New England to Virginia.
" Sabiniana (E) ..	..	Nut-pine	California.
" strobus (E) ..	..	Weymouth pine	North America.
Piptanthus Nepalensis (E)	..	Evergreen laburnum ..	Himalayas.
Pittosporum crassifolium (E)	..	Karo	New Zealand.
" eugenioides (E)	..	Matipo, tarata	"
" tenuifolium (E)	..	" tawhiri	"
" Buchananii (E)	..	" tawhiwhi	"
Populus deltoides (D) ..	Populus monolifera, Populus Canadensis	Canadian or black Italian poplar	North America.
Populus nigra pyramidalis (D)	Populus dilatata, Populus fastigata	Lombardy poplar ..	Europe and Northern Asia.
Podocarpus dacrydioides (E)	..	Kahikatea	New Zealand.
" totara (E) ..	Nageia totara ..	Totara	"
" Hallii (E) ..	" Hallii ..	Large-leaved totara ..	"
Pseudo-tsuga taxifolia (E) ..	Abies Douglasii ..	Oregon pine	British Columbia, Pacific Coast, &c.
Pyrus aucuparia (D) ..	Sorbus aucuparia ..	Rowan-tree, mountain-ash ..	Europe and Asia.
Quercus coccinea (D) ..	..	Scarlet oak	Eastern North America.
" macrocarpa (D) ..	..	Burr oak	"
" pedunculata (D) ..	Quercus robur ..	British oak	Europe and West Asia.
" palustris (D) ..	..	Pin-oak	South-east of North America.
" suber (D) ..	..	Cork-oak	Southern Europe.
Raphiolepsis ovata (E) ..	..	Indian hawthorn	India.
Retinospora, varieties (E) ..	..	Cypress	Japan.
Robinia pseudo acacia (D) ..	..	Black loquat or false acacia	Pennsylvania Mountains.
Salix Caprea (D)	..	Goat willow	Europe (Britain).
" viminalis (D) ..	Salix longifolia ..	Common osier	"
" vitellina (D) ..	..	Golden osier	Britain.
Senecio rotundifolius (E) ..	..	Leatherleaf	New Zealand.
Sequoia sempervirens (E) ..	Taxodium sempervirens	Redwood	California.
Sophora tetraptera (E) or (D)	Edwardsia microphylla	Kowhai	New Zealand.
Tamarix gallica (E) ..	..	Tamarisk	Europe.
Veronica, species (E) ..	..	Koromiko	New Zealand.
Vitex lucens (E)	..	Puriri	North New Zealand.

SCHEDULE A.—ONE-YEAR-OLD TREES.—Details of Trees grown at Eweburn Nursery, 1905–6. (Tenth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Pinus Austriaca	20,900	1½	14	1 0 0	20 18 0	Very good.
" Laricio	66,500	1½	42	1 0 0	66 10 0	Very thin crop.
" ponderosa	18,000	1½	14	1 0 0	18 0 0	Good results.
" Jeffreyii	200	1	1	1 5 0	0 5 0	Have done well.
" Torreyana	150	1	1	1 5 0	0 3 9	
" Benthamiana	2,000	1	3	1 5 0	2 10 0	Satisfactory crop.
Larix Europæa	130,500	1½	140	1 0 0	130 10 0	
Totals	238,250	..	..	..	238 16 9	

SCHEDULE A[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Eweburn Nursery, 1904–5. (Ninth Crop.)

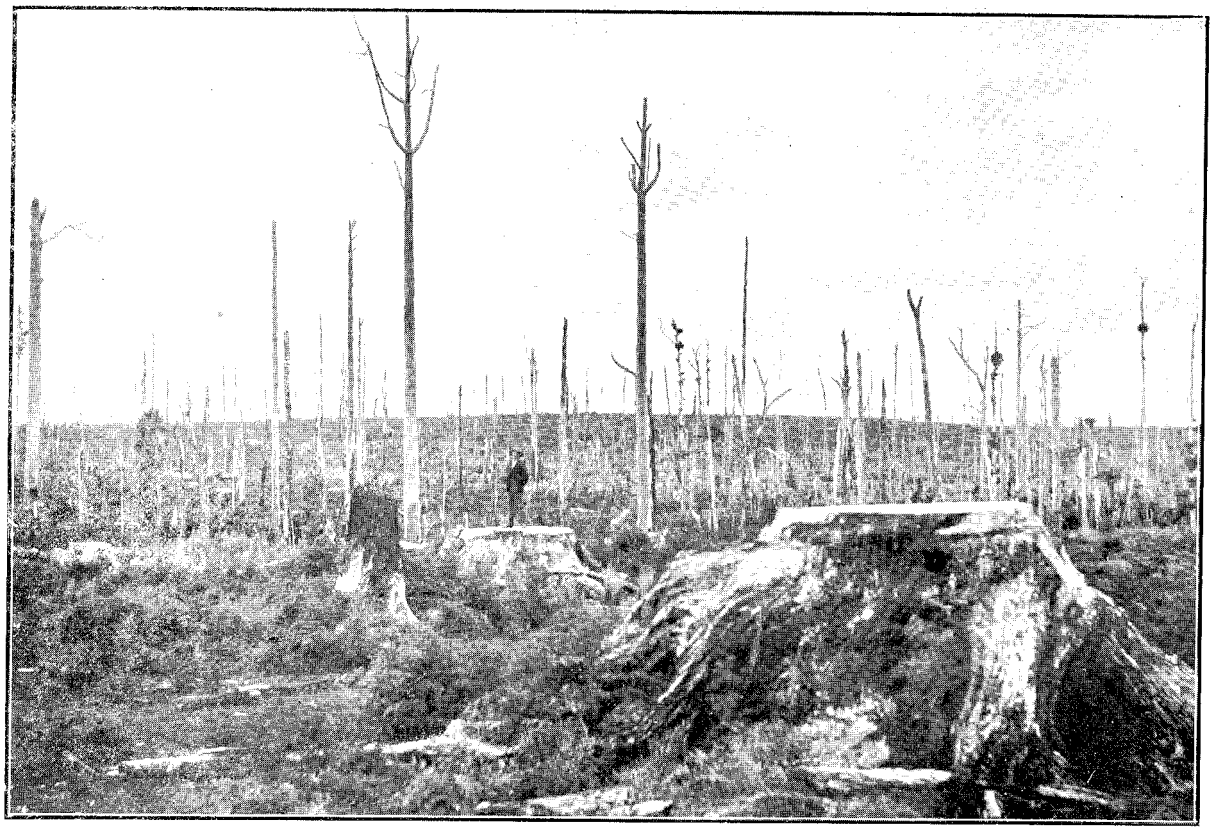
Name of Tree.	Number in Seed-beds.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Pinus Austriaca	100,000	3	1 5 0	125 0 0	Very good.
" Laricio	100,000	3	1 5 0	125 0 0	
" ponderosa	12,500	4	1 5 0	15 12 6	Fair crop.
" halepensis	8,000	6	1 5 0	10 0 0	Good results.
" halepensis	18,000	8	2 5 0	40 10 0	Good (lined out).
" muricata	12,000	8	2 5 0	27 0 0	
Larix Europæa	100,000	3–10	1 5 0	125 0 0	Fair growth.
Cytisus vulgare	60,500	12	1 5 0	75 12 6	Very good.
Totals	411,000	..	..	543 15 0	

SCHEDULE A[2].—THREE-YEAR-OLD TREES.—Details of Trees grown at Eweburn Nursery, 1903–4. (Eighth Crop.)

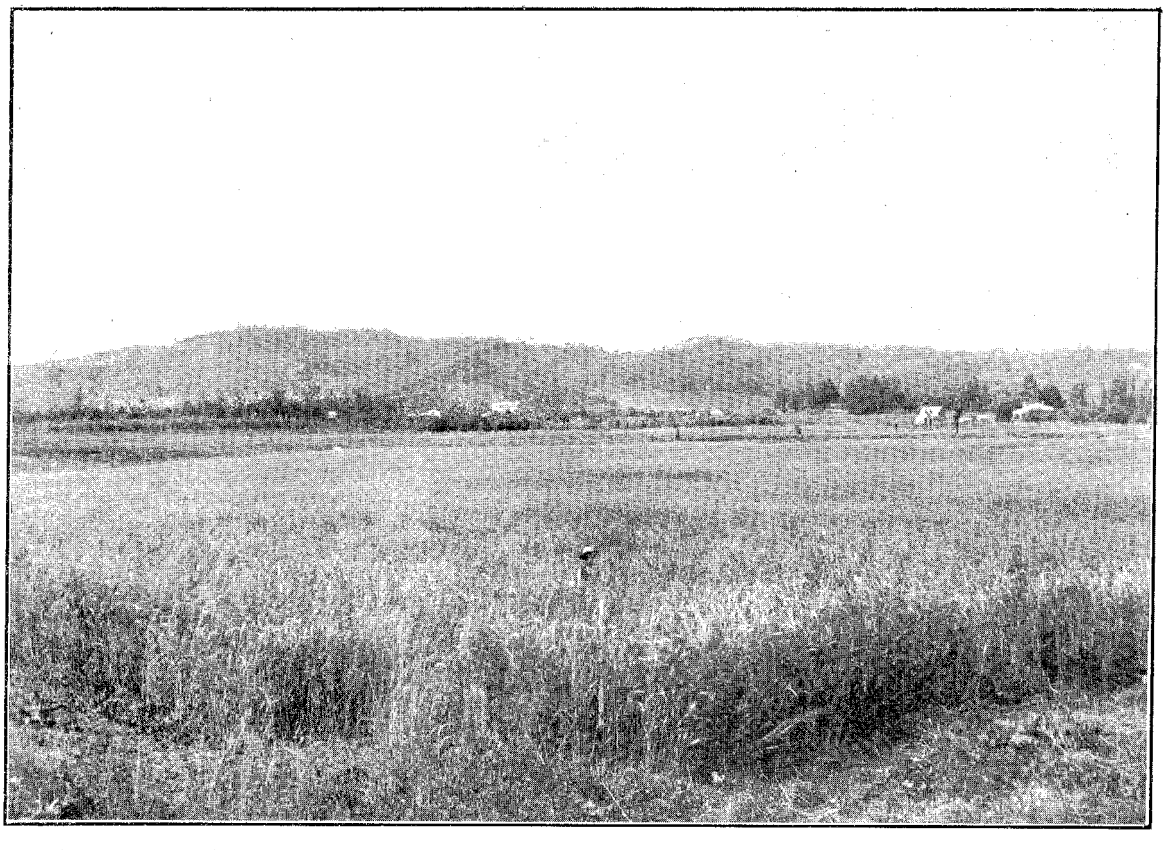
Name of Tree.	Number in Nursery Rows.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Pinus Austriaca	192,600	8–10	3 0 0	577 16 0	Very good.
" ponderosa	3,500	3–4	3 0 0	10 10 0	Fair results.
Larix Europæa	100,600	8–10	3 0 0	301 16 0	Very satisfactory.
Totals	296,700	..	..	890 2 0	

SCHEDULE A[3].—Trees transferred from Eweburn Nursery to Plantations, &c., 1905–6.

Where sent.	Name of Tree.	Number.	Value per Thousand.	Total Value.
			£ s. d.	£ s. d.
Gimmerburn Reserve ..	Pinus Austriaca	79,600	3 0 0	238 16 0
	Larix Europæa	37,800	2 5 0	85 1 0
	" "	3,525	3 0 0	10 11 6
	Salix viminalis (cuttings)	8,175	2 0 0	16 7 0
		129,100		350 15 6
Tapanui Nursery	Robinia pseudo-acacia	8,500	1 10 0	12 15 0
	Berberis Nepaulensis	150	2 10 0	0 7 6
		8,650		13 2 6
Survey Paddock Plantation	Pinus ponderosa	11,450	2 5 0	25 15 3
	" "	2,650	3 0 0	7 19 0
	" Austriaca	5,550	2 5 0	12 9 9
		19,650		46 4 0
Gimmerburn Reserve, as per details above		129,100	..	350 15 6
Tapanui Survey, as per details above		8,650	..	13 2 6
Survey Paddock Plantation, as per details above		19,650	..	46 4 0
Totals		157,400		£410 2 0



Cut-out Kauri Forest at Puhipuhi, Auckland, being replanted with Totara and Eucalypti.



Oat-crop at Reatangata Nursery, Auckland, showing Result of Systematic Tillage on Poor Land.

SCHEDULE B.—ONE-YEAR-OLD TREES.—Details of Trees grown at Tapanui Nursery, 1905–6. (Ninth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Picea excelsa	147,000	¾	20	1 0 0	147 0 0	Excellent crop.
Pseudo-tsuga taxifolia	3,000	¾	16	1 5 0	3 15 0	Germinated poorly.
Pinus Austriaca	41,500	1½	7	1 0 0	41 10 0	Good crop.
„ Laricio	98,500	1½	20	1 0 0	98 10 0	
„ ponderosa	70,000	1½	14	1 0 0	70 0 0	
„ muricata	58,000	3½	3	1 0 0	58 0 0	Vigorous growth.
„ Benthamiana	14,500	1½	7	1 5 0	18 2 6	Good crop.
„ Torreyana	1,000	3	3	1 5 0	1 5 0	Strong plants.
„ Jeffreyii	750	2	1	1 5 0	0 18 9	„
„ Murrayana	100	1½	½	1 5 0	0 2 6	Very weak.
Larix Europæa	150,000	2–5	168	1 0 0	150 0 0	Strong plants; two-thirds damped off.
Fraxinus excelsior	10,000	3	4 sacks	1 0 0	10 0 0	Fair crop.
Acer pseudo-platanus	86,000	8	1 sack	0 10 0	43 0 0	Good crop.
Quercus pedunculata	22,000	6	1 „	1 0 0	22 0 0	
Picea sitchensis	30,500	¾	7	1 5 0	38 2 6	Germinated poorly.
Betula alba	500	2	10	1 0 0	0 10 0	„
Cotoneaster Simmondsii	1,000	3	3	1 5 0	1 5 0	Strong healthy plants.
Pittosporum tenuifolium	2,200	6	5	1 0 0	2 4 0	
Æsculus hippocastanum	75	6	2	1 10 0	0 2 3	
Phormium tenax	1,000	4	2	1 5 0	1 5 0	
Griselinia littoralis	3,000	2	2	1 5 0	3 15 0	
Cerasus lauro-cerasus	1,000	2½	3	1 10 0	1 10 0	
Native trees	1,000	1–5	..	1 10. 0	1 10 0	
Totals	742,625	..	..	..	714 7 6	

SCHEDULE B¹.—TWO-YEAR-OLD TREES.—Details of Trees grown at Tapanui Nursery, 1904–5. (Eighth Crop.)

Name of Tree.	Number in Seed-beds.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Picea excelsa	271,000	..	2	1 5 0	338 15 0	Fair growth.
Pseudo-tsuga taxifolia	80,000	..	2½	1 10 0	120 0 0	Small plants.
Pinus Austriaca	134,700	..	4½	1 5 0	168 7 6	Splendid plants.
„ Laricio	139,000	..	3½	1 10 0	208 10 0	
„ ponderosa	33,000	..	3	1 5 0	41 5 0	Medium growth.
„ muricata	23,000	..	8	1 5 0	28 15 0	Very strong plants.
„ halepensis	15,000	..	7	1 5 0	18 15 0	
Larix Europæa	338,000	..	10	1 5 0	422 10 0	Strong, even growth.
Fraxinus Americanus	21,000	..	12	1 5 0	26 5 0	Healthy plants.
Acer pseudo-platanus	..	61,750	14	1 10 0	92 12 6	Vigorous plants.
Quercus pedunculata	..	16,500	15	2 5 0	37 2 6	
Picea sitchensis	178,000	..	1½	1 10 0	267 0 0	
Robinia pseudo-acacia	1,800	..	12	0 15 0	1 17 7	Small plants.
Catalpa speciosa	..	100	12	2 0 0	0 4 0	Fair growth.
Laburnum vulgare	4,000	1,500	18	1 5 0 / 1 10 0	7 5 0	Poor growth.
Piptanthus Nepalensis	3,500	..	18	1 5 0	4 7 6	Strong plants.
Cotoneaster Simmondsii	500	..	9	1 5 0	0 12 6	
Totals	1,242,500	79,850	..	..	1,783 13 6	

SCHEDULE B².—THREE-YEAR-OLD TREES.—Details of Trees grown at Tapanui Nursery, 1903–4. (Seventh Crop.)

Name of Tree.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Picea excelsa	238,000	8	3 0 0	714 0 0	These trees have made excellent growth, and nearly the total number will be transferred to plantations during the coming winter.
Pseudo-tsuga taxifolia	28,900	10	3 5 0	93 18 6	
Picea sitchensis	100	10	3 5 0	0 6 6	
Pinus Austriaca	66,400	6	3 0 0	199 4 0	
„ ponderosa	500	6	3 5 0	1 12 6	
„ ponderosa, var. Benthamiana	150	5	3 5 0	0 9 9	
„ radiata	2,500	13	3 0 0	7 10 0	
„ strobus	200	7	3 0 0	0 12 0	
„ rigida	100	8	3 0 0	0 6 0	
„ halepensis	100	8	3 0 0	0 6 0	
Larix Europæa	8,000	15	3 0 0	24 0 0	
Betula alba	61,800	14	3 0 0	185 8 0	
Fraxinus excelsior	83,700	17	3 0 0	251 2 0	
Robinia pseudo-acacia	2,000	18	2 5 0	4 10 0	
Alnus glutinosa	1,700	13	3 0 0	5 2 0	
Juglans regia	1,700	11	4 10 0	7 13 0	
Acer saccharum	4,600	15	3 0 0	13 16 0	
Pittosporum tenuifolium	250	15	3 5 0	0 16 3	
Totals	500,700	..	..	1,510 12 6	

SCHEDULE B[3].—Trees transferred from Tapanui Nursery to Plantations, Domains, &c., 1905–6.

Where sent.	Name of Tree.	Number.	Height in Inches.	Value per Thousand. £ s. d.	Total Value. £ s. d.	Remarks.
Conical Hills Plantation	Pinus Austriaca	90,500	12	3 0 0	271 10 0	Excellent growth.
	„ ponderosa	9,850	10	3 0 0	29 11 0	
	„ Benthamiana ..	3,450	12	3 5 0	11 4 3	
	„ strobus	3,150	9	3 0 0	9 9 0	Good growth.
	„ rigida	750	10	3 0 0	2 5 0	
	„ radiata	6,075	11	3 0 0	18 4 6	
	Picea excelsa	150,675	12	3 0 0	452 0 6	Fair growth.
	„ sitchensis ..	175	15	3 5 0	0 11 4	
	Pseudo-tsuga taxifolia ..	35,875	20	3 5 0	116 11 10	
	Larix Europæa	75,900	15	3 0 0	227 14 0	Vigorous growth.
	Fraxinus excelsior ..	74,725	20	3 0 0	224 3 6	Fair results.
	Quercus pedunculata ..	2,150	15	3 0 0	6 9 0	
	Acer pseudo-platanus ..	84,925	14	2 15 0	233 11 0	
	Betula alba	63,150	18	3 0 0	189 9 0	Round boundary.
	Juglans regia	4,180	11	4 5 0	17 15 4	For firebreaks.
	Alnus glutinosa	1,250	16	3 0 0	3 15 0	On swampy ground.
	Pyrua aucuparia	445	24	3 15 0	1 13 5	Fair growth.
	Acer saccharum	525	16	3 0 0	1 11 6	„
	Robinia pseudo-acacia ..	6,975	15	2 5 0	15 13 10	From Eweburn Nursery.
	Populus (var.)	450	20	1 10 0	0 13 6	Planted in swamps.
	Salix (var.)	200	20	1 10 0	0 6 0	
	Laburnum vulgare ..	7,625	20	2 0 0	15 5 0	Good growth.
		623,000			1,849 7 6	
	Quercus pedunculata ..	239,600	..	1 5 0	299 10 0	Acorns planted *in situ*.
		862,600			2,148 17 6	
Dusky Hill Plantation	Pinus Austriaca	30,750	12	3 0 0	92 5 0	All these trees were used for replanting purposes, with satisfactory results.
	„ ponderosa	1,500	10	3 0 0	4 10 0	
	„ Benthamiana ..	125	12	3 5 0	0 8 1	
	„ rigida	100	7	2 0 0	0 6 0	
	Picea excelsa	1,000	7	3 0 0	3 0 0	
	Pseudo-tsuga taxifolia ..	1,650	10	3 5 0	5 7 3	
	Larix Europæa	10,000	15	3 0 0	30 0 0	
	Fraxinus excelsior ..	9,100	18	3 0 0	27 6 0	
	Quercus pedunculata ..	9,250	17	3 0 0	27 15 0	
	Acer pseudo-platanus ..	4,300	14	2 15 0	11 16 6	
	Betula alba	100	16	3 0 0	0 6 0	
	Alnus glutinosa	2,000	15	3 0 0	6 0 0	
	Trees and shrubs ..	200	..	..	0 12 0	
		70,075			209 11 10	
	Quercus pedunculata ..	21,950	..	1 5 0	27 8 9	Acorns planted *in situ*.
		92,025			237 0 7	
Hanmer Springs Plantation	Picea excelsa	10,000	6	3 0 0	30 0 0	For nursery and plantation purposes.
	Larix Europæa	600	13	3 0 0	1 16 0	
	Fraxinus excelsior ..	6,000	12	1 5 0	7 10 0	
	Alnus glutinosa	200	13	3 0 0	0 12 0	
	Robinia pseudo-acacia ..	725	12	1 15 0	1 5 4	
		17,525			41 3 4	
Conical Hills Plantation	As per details above ..	862,600	..	..	2,148 17 6	
Dusky Hill Plantation	„ ..	92,025	..	..	237 0 7	
Hanmer Springs Plantation	„ ..	17,525	..	..	41 3 4	
Industrial School, Burnham	Trees and shrubs ..	2,220	..	..	4 8 0	
Tourist Department, Queenstown	„ ..	392	..	..	2 0 9	
Domain Board, Gore	Native trees and shrubs ..	90	..	..	1 11 6	
Tourist Department, Hanmer Springs	Betula Alba	200	..	..	0 14 6	
Beautifying Association, Waikoikoi.	Trees (assorted)	325	..	..	2 0 0	
Rotorua Nursery	50 lb. Pinus Laricio ..	..	..	..	8 18 7	
Totals ..	..	975,377	..	..	2,446 14 9	

SCHEDULE C.—ONE-YEAR-OLD TREES.—Details of Trees grown at Rotorua Nursery, 1905–6 (Seventh Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Amount of Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Larix Europæa	2,500,000	1–6	560	1 0 0	2,500 0 0	Extraordinarily good.
Pinus Laricio	1,300,000	2	112	1 0 0	1,300 0 0	
„ ponderosa	300,000	2	56	1 0 0	300 0 0	Good, even, and strong growth.
„ ponderosa, var. Benthamiana	54,000	2	14	1 5 0	67 10 0	
„ Austriaca	130,000	2	28	1 0 0	130 0 0	
„ Murrayana	16,000	1	¼	1 5 0	20 0 0	Fair average.
„ Jeffreyii	600	2	1	1 5 0	0 15 0	
„ muricata	20,000	6	3	1 0 0	20 0 0	Good results.
„ Torreyana	2,500	3	14	1 5 0	3 2 6	Poor germination; good plants.
Eucalyptus amygdalina	130,000	6	3	0 10 0	65 0 0	
„ pauciflora	120,000	6	4	0 10 0	60 0 0	Good and even crop.
Acacia melanoxylon	40,000	6	14	1 0 0	40 0 0	
Juglans nigra	800	12	8 bush.	3 0 0	2 8 0	Only fair results, owing to poor germination of seed.
Sequoia sempervirens	5,000	2–4	35	4 0 0	20 0 0	
Juniperus Virginiana	500	1	14	1 10 0	0 15 0	
Totals	4,619,400	..	..	..	4,529 10 6	

SCHEDULE C[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Rotorua Nursery, 1904–5. (Sixth Crop.)

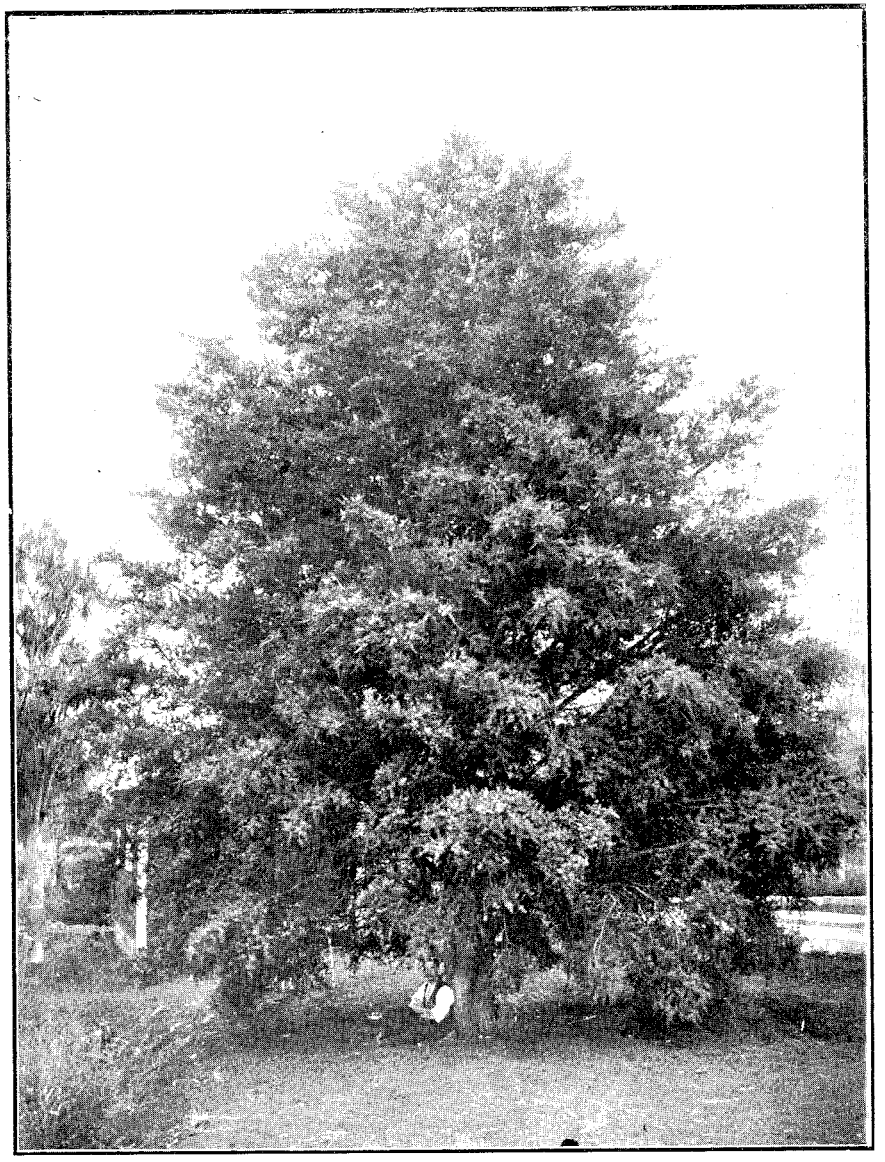
Name of Tree.	Number in Seed-beds.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Larix Europæa	1,300,000	8–18	1 5 0	1,625 0 0	Very good crop.
Pinus Austriaca	200,000	4–8	1 5 0	250 0 0	Strong and sturdy.
„ Laricio	260,000	3–6	1 5 0	325 0 0	„
„ ponderosa	55,000	6–8	1 5 0	68 15 0	Good and even.
„ ponderosa, var. Benthamiana ..	22,000	4	1 10 0	33 0 0	Fair average.
„ strobus	12,000	3	1 5 0	15 0 0	Fair only.
„ Jeffreyii	3,000	6–8	1 10 0	4 10 0	Very vigorous.
„ Lambertiana	1,200	8–12	1 10 0	1 16 0	
Pseudo-tsuga taxifolia	200,000	6–8	1 10 0	300 0 0	Good; above average.
Picea sitchensis	50,000	6–8	1 10 0	75 0 0	Strong and healthy.
Thuja gigantea	12,000	9–15	2 0 0	24 0 0	Good; above average.
Totals	2,115,200	..	..	2,722 1 0	

SCHEDULE C[2].—THREE-YEAR-OLD TREES.—Details of Trees grown at Rotorua Nursery, 1903–4. (Fifth Crop.)

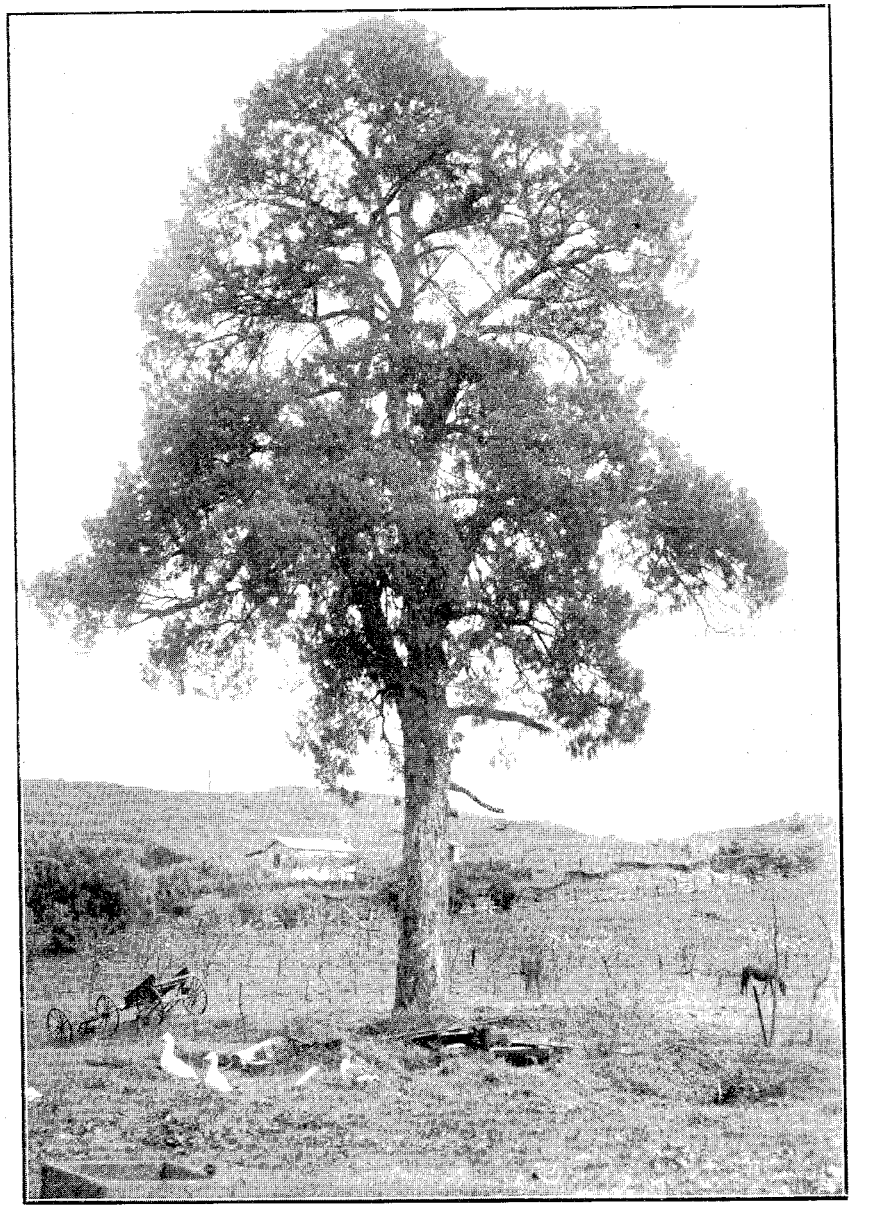
Name of Tree.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Pinus Austriaca	280,000	5–8	3 0 0	840 0 0	Good growth.
„ strobus	17,000	6	3 0 0	51 0 0	Strong plants.
„ ponderoso	1,000	4	3 0 0	3 0 0	Fair growth.
Larix Europæa	700,000	9–16	3 0 0	2,100 0 0	Medium crop.
Picea excelsa	50,000	12	3 0 0	150 0 0	Sturdy plants.
„ sitchensis	50,000	8	3 5 0	162 10 0	Fairly good.
Pseudo-tsuga taxifolia	30,000	9–16	3 5 0	97 10 0	Good crop.
Hikora ovata	2,500	6	5 10 0	13 15 0	Satisfactory.
Robinia pseudo-acacia	16,000	18–36	1 10 0	24 0 0	Very strong growth.
Liriodendron tulipiferum	300	9–18	3 10 0	1 1 0	Good.
Totals	1,146,800	..	..	3,442 16 0	

SCHEDULE C[3].—Trees, &c., transferred from Rotorua Nursery to Forest Plantations, &c., 1905–6.

Where sent.	Name of Tree.	Number.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Whakarewarewa Plantation	Larix Europæa	750,150	12	3 0 0	2,250 9 0	All trees have done well at this plantation during the year, with the exception of E. obliqua, E. Sieberiana, E. haemastoma, and E. gigantea, which were badly frosted.
	Pseudo-tsuga taxifolia ..	52,233	6	3 5 0	169 15 1	
	Pinus Torreyana.. ..	1,320	6	2 5 0	2 19 4	
	„ contorta	390	6	2 5 0	0 17 6	
	„ muricata	4,095	6	1 10 0	6 2 10	
	Acacia melanoxylon ..	25,500	6	2 0 0	51 0 0	
	„ Baileyana ..	150	6	2 0 0	0 6 0	
	Robinia pseudo-acacia ..	100	10	1 0 0	0 2 0	
	Juglans cineria	2,217	18	4 10 0	9 19 6	
	„ nigra	3,330	12	5 0 0	16 13 0	
	„ regia	4,370	10	4 15 0	20 15 1	
	Æsculus hippocastanum ..	119	12	6 0 0	0 14 3	
	Eucalyptus amygdalina ..	137,970	4	1 10 0	206 19 1	
	„ gigantea ..	3,740	4	1 10 0	5 12 2	
	„ obliqua ..	56,320	4	1 10 0	84 9 7	
	„ Stuartiana ..	99,620	4	1 10 0	149 8 7	
	„ coriacea ..	39,770	4	1 10 0	59 13 1	
	„ Sieberiana ..	5,640	4	1 10 0	8 9 2	
	„ haemastoma ..	5,190	4	1 10 0	7 15 8	
	„ Gunnii (Hooker)	3,420	4	1 10 0	5 2 7	
	„ varieties ..	60	4	2 10 0	0 3 0	
	Ornamental shrubs ..	200	..	£5 per 100	10 0 0	
		1,195,904			3,067 6 6	
Waiotapu Plantation	Larix Europæa	743,415	15	3 0 0	2,230 4 10	Have all done well.
	Pinus Austriaca	89,550	6	3 0 0	268 13 0	
	„ ponderosa, var. Benthamiana	18,825	8	3 5 0	61 3 7	
	„ ponderosa	7,050	8	3 0 0	21 3 0	
	„ Laricio	27,000	6	3 0 0	81 0 0	
	„ strobus	37,525	6	3 0 0	112 11 6	
	„ Coulterii	430	10	3 10 0	1 10 1	
	„ contorta	700	6	3 0 0	2 2 0	
	„ muricata	1,000	6	2 5 0	2 5 0	
	„ Torreyana.. ..	500	6	2 5 0	1 2 6	
	„ excelsa	100	4	2 5 0	0 4 6	
	„ Sylvestris	200	4	2 5 0	0 9 0	
	„ Jeffreyii	18	4	2 5 0	0 0 9	
	Sequoia sempervirens ..	375	6	8 0 0	3 0 0	
	Acacia melanoxylon ..	40	6	2 0 0	0 1 7	Experimental; very satisfactory.
	Robinia pseudo-acacia ..	41,675	10	1 10 0	62 10 3	Slow; eaten by hares.
	Eucalyptus Gunnii (Hooker)	102,574	4	1 10 0	153 17 2	Good.
	„ „ (Mueller)	34,636	4	1 10 0	51 19 0	Not very satisfactory.
	„ Muellerii ..	1,285	4	2 10 0	3 4 3	„
	„ coriacea ..	23,570	4	1 10 0	35 7 1	Fair.
	„ urnigera ..	5,080	4	2 10 0	12 14 0	„
	„ Stuartiana ..	28,280	4	1 10 0	42 8 4	Not very satisfactory.
	„ coccifera ..	1,425	4	2 10 0	3 11 3	Fair.
		1,165,253			3,151 2 8	
Ruatangata Nursery	Pinus muricata	25,000	6	2 5 0	56 5 0	For breakwinds.
	Eucalypti (varieties) ..	350	4	1 10 0	0 10 6	Experimental planting.
		25,350			56 15 6	
Whakarewarewa Plantation	As per details above ..	1,195,904	..	..	3,067 6 6	
Waiotapu Plantation	„ ..	1,165,253	..	..	3,151 2 8	
Ruatangata Nursery	„ ..	25,350	..	..	56 15 6	
Acclimatisation Society, Tirau	Shelter trees	250	..	£1 per 100	2 10 0	
Native School, Taupo	Ornamental shrubs (vars.)..	74	..	£5 per 100	3 14 0	
Tapanui Nursery ..	Catalpa speciosa	100	15	£2 10s. per 1,000	0 5 0	Experimental planting.
Totals ..	..	2,386,931	..	..	6,281 13 8	



TOTARA-SAPLING, RUATANGATA NURSERY.



SPECIMEN OF RIMU AT POHUE, HAWKE'S BAY.

SCHEDULE D.—ONE-YEAR-OLD TREES.—Details of Trees grown at Starborough Nursery, 1905–6. (Fifth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Larix Europæa	400,000	4 to 8	168	1 0 0	400 0 0	Very fine trees.
Pinus Murrayana	1,200	1 to 1½	pkt.	1 5 0	1 10 0	
„ Laricio	300,000	1 to 2	52	1 0 0	300 0 0	
„ ponderosa	40,000	2 to 3	7	1 0 0	40 0 0	
„ Austriaca	50,000	1 to 2	7	1 0 0	50 0 0	
„ ponderosa, var. Benthamiana ..	25,000	2 to 3	7	1 5 0	31 5 0	
„ strobus	2,500	1 to 1½	7	1 0 0	2 10 0	Poor plants.
„ Torreyana	1,000	2 to 4	3	1 5 0	1 5 0	Strong.
Pseudo-tsuga taxifolia	2,000	1 to 2	6	1 5 0	2 10 0	Poor crop.
Picea sitchensis	3,500	½ to 1	½	1 5 0	4 7 6	Fair crop.
Robinia pseudo-acacia	75,000	24 to 36	28	0 10 0	37 10 0	Strong.
Totals	900,200	..	..	..	870 17 6	

SCHEDULE D[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Starborough Nursery, 1904–5. (Fourth Crop.)

Name of Tree.	Number in Seed-beds.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Pinus Austriaca	40,000	..	6 to 9	1 5 0	50 0 0	Healthy, well-rooted plants.
„ ponderosa	12,500	..	8 to 12	1 5 0	15 12 6	
Larix Europæa	..	200,000	18 to 24	2 5 0	450 0 0	
Pseudo-tsuga taxifolia	..	25,000	4 to 9	2 10 0	62 10 0	
Pinus ponderosa	..	2,000	6 to 10	2 5 0	5 0 0	
„ Laricio	..	60,000	4 to 6	2 5 0	132 0 0	
„ muricata	..	7,500	9 to 15	2 5 0	16 17 6	Good.
Robinia pseudo-acacia	..	19,000	36 to 48	1 10 0	28 10 0	Very strong.
Totals	52,500	313,500	..	..	760 10 0	

SCHEDULE D[2].—THREE- AND FOUR-YEAR-OLD TREES.—Details of Trees grown at Starborough Nursery, 1903–4. (Second and Third Crops.)

Name of Tree.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Pseudo-tsuga taxifolia	100,000	6 to 12	3 5 0	325 0 0	Strong, well-rooted plants.
Pinus strobus	2,500	3 to 6	3 0 0	7 10 0	
„ Austriaca	150,000	6 to 10	3 0 0	450 0 0	
Berberis aristata	15,000	12 to 18	1 0 0	15 0 0	
Totals	267,500	..	..	797 10 0	

SCHEDULE D[3].—Trees transferred from Starborough Nursery to Plantations, Nurseries, &c., 1905–6.

Where sent.	Name of Tree.	Number of Trees.	Value per Thousand.	Total Value.
			£ s. d.	£ s. d.
Dumgree Plantation	Pinus Austriaca	156,500	4 0 0	626 0 0
	„ Austriaca	21,500	3 0 0	64 10 0
	„ Laricio	67,500	3 0 0	202 10 0
	„ strobus	16,250	3 0 0	48 15 0
	„ ponderosa	17,000	3 0 0	51 0 0
	„ rigida	2,400	3 0 0	7 4 0
	Larix Europæa	74,450	3 0 0	223 7 0
	Pinus ponderosa, var. Benthamiana	2,650	3 5 0	8 12 3
	Pseudo-tsuga taxifolia	3,000	1 10 0	4 10 0
	Betula alba	2,800	2 5 0	6 6 0
	Robinia pseudo-acacia	1,200	1 10 0	1 16 0
		365,250		1,244 10 3
Awatere Cemetery Trustees	Pinus radiata	350	3 0 0	1 1 0
State Nursery, Ranfurly	Berberis aristata	5,000	1 0 0	5 0 0
Government Biologist, Wellington ..	Pinus radiata	500	3 0 0	1 10 0
	Total ..	371,100		1,252 1 3
Rotorua Nursery	35 tons chaff, at £2 per ton ..	..	..	70 0 0
	15 tons hay, at £2 per ton ..	..	..	30 0 0
	32½ lb. tree-seeds	..	..	17 7 6
Hanmer Springs Nursery	5 tons chaff, at £2 per ton ..	..	..	10 0 0
			Total	1,379 8 9

SCHEDULE E.—Details of ONE-YEAR-OLD TREES.—Details of trees grown at Hanmer Springs Nursery, 1905–6. (Fourth Crop.)

Name of Tree.	Number in Seed-beds.	Height in Inches.	Seed sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Larix Europæa	250,000	1½–5	140	1 0 0	250 0 0	Excellent plants.
Pinus Laricio	350,000	1½	42	1 0 0	350 0 0	
" Austriaca	38,000	2	4	1 0 0	38 0 0	
" ponderosa	75,000	2	14	1 0 0	75 0 0	Very good crop.
" Benthamiana (true) ..	25,000	2	7	1 5 0	31 5 0	Strong.
Picea sitchensis	12,000	1	2	1 5 0	15 0 0	Nice crop.
Totals	750,000	..	..	..	759 5 0	

SCHEDULE E[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Hanmer Springs Nursery, 1904–5. (Third Crop.)

Name of Tree.	Number in Nursery Lines.	Number in Seed-beds.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Larix Europæa	220,000	..	9	2 5 0	495 0 0	Strong plants.
Pinus Austriaca	100,000	..	4	2 5 0	225 0 0	"
" Laricio	84,000	..	4	2 5 0	189 0 0	Very healthy stuff.
" ponderosa	10,000	..	4	2 5 0	22 10 0	" "
" muricata	32,000	..	8	2 5 0	72 0 0	" "
Pseudo-tsuga taxifolia	15,000	..	5–12	2 10 0	37 10 0	Good plants.
Acer pseudo-platanus	840	..	10	1 10 0	1 5 2	For road-lines.
Picea sitchensis	..	60,000	4–9	1 10 0	90 0 0	Have made good growth
Totals	461,840	60,000	..	..	1,132 5 2	

SCHEDULE E[2].—Trees transferred from other Nurseries, 1904–5.

Name of Tree.	Where from.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
				£ s. d.	£ s. d.	
Picea excelsa	Rotorua ..	105,000	5–14	3 0 0	315 0 0	Good progress this season.
Pseudo-tsuga taxifolia ..	Tapanui ..	19,000	8	3 5 0	61 15 0	
Totals	..	124,000	..	..	376 15 0	

SCHEDULE E[3].—Trees transferred to Hanmer Springs Plantation, 1905–6.

Name of Tree.	Where from,	Number.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Pinus Austriaca	Hanmer Springs ..	15,110	1 5 0	18 17 9	Have done well.
Pinus ponderosa	..	7,175	1 5 0	8 19 4	
Larix Europæa	..	10,000	2 5 0	22 10 0	
Alnus glutinosa	..	2,100	4 0 0	8 8 0	
Betula alba	..	825	3 0 0	2 9 6	
		35,210		61 4 7	
Quercus pedunculata ..	..	70,900	1 5 0	88 12 6	Planted *in situ*.
Picea excelsa	Tapanui	10,000	3 0 0	30 0 0	Done fair—few dead
Fraxinus excelsior ..	..	6,000	1 5 0	7 10 0	All have done well; scarcely a death.
Robinia pseudo acacia ..	..	725	1 10 0	1 1 9	
Alnus glutinosa	..	200	3 0 0	0 12 0	
Larix Europæa	..	600	3 0 0	1 16 0	
		17,525		40 19 9	
As per details above ..	Hanmer	35,210	..	61 4 7	
" " ..	Planted *in situ* ..	70,900	..	88 12 6	
" " ..	Tapanui	17,525	..	40 19 9	
Totals	..	123,635	..	190 16 10	

SCHEDULE F.—ONE-YEAR-OLD TREES.—Details of Trees grown at Ruatangata Nursery, 1905–6. (Third Crop.)

Name.	Number in Seed-beds.	Height in Inches.	Seed Sown.	Value per Thousand.	Total Value.	Remarks.
			Lb.	£ s. d.	£ s. d.	
Podocarpus totara ..	250,000	6	100	2 10 0	625 0 0	Even, sturdy, well-ripened wood; excellent results.
Vitex lucens	60,000	9	300	1 10 0	90 0 0	
Pseudo-tsuga taxifolia ..	5,000	3	¼	1 5 0	6 5 0	Germinated evenly, strong plants.
Sequoia sempervirens ..	600	12	7	4 0 0	2 8 0	Remarkable growth.
„ gigantea ..	1,000	6	½	2 0 0	2 0 0	Average growth.
Pittosporum crassifolium ..	1,000	6	3	2 0 0	2 0 0	Good strong plants.
Fraxinus Americanas ..	500	18	½	1 0 0	0 10 0	
Eucalyptus corynocalyx ..	3,000	6	1	0 10 0	1 10 0	
„ leucoxylon ..	25,000	6	1	0 10 0	12 10 0	Good crop; excellent seed. Perfect weather favoured seedlings.
„ marginata ..	6,000	6	1	0 10 0	3 0 0	
„ paniculata ..	20,000	6	1	0 10 0	10 0 0	
„ rostrata ..	40,000	6	1	0 10 0	20 0 0	
„ resinifera ..	16,000	6	1	0 10 0	8 0 0	
„ siderophloia ..	25,000	6	1	0 10 0	12 10 0	
„ obliqua ..	30,000	6	1	0 10 0	15 0 0	
Japanese trees and shrubs in variety	100	6	..	10 0 0	1 0 0	Satisfactory.
Totals	483,200	..	..	..	811 13 0	

SCHEDULE F[1].—TWO-YEAR-OLD TREES.—Details of Trees grown at Ruatangata Nursery, 1904–5. (Second Crop.)

Name.	Number in Nursery Lines.	Height in Inches.	Value per Thousand.	Total Value.	Remarks.
			£ s. d.	£ s. d.	
Podocarpus totara	50,000	18	4 5 0	212 10 0	Partially decimated by wire-worm; balance good progress.
„ „	80,000	4	1 10 0	120 0 0	Lined in under frames; succeeding well.
„ dacrydioides ..	20,000	4	1 10 0	30 0 0	
Alectryon excelsum	2,000	6	1 0 0	2 0 0	
Phyllocladus trichomanoides ..	4,000	3	2 0 0	8 0 0	Slow in growth.
Vitex lucens	3,000	18	3 10 0	10 10 0	Spendid growth.
Pinus maritima	10,000	18	2 5 0	22 10 0	Lined out, good; transferred from Rotorua.
Totals	169,000	..	..	405 10 0	

SCHEDULE F[2].—Details of Trees transferred from Ruatangata Nursery to Puhipuhi Plantation, 1905–6.

Name of Tree.	Number.	Value per Thousand.	Total Value.	Remarks.
		£ s. d.	£ s. d.	
Podocarpus totara..	61,500	4 5 0	261 7 6	Making slow growth, but in a healthy state.
„ dacrydioides	550	3 0 0	1 13 0	
Juglans nigra	550	3 0 0	1 13 0	Growing well.
Eucalyptus corymbosa	15,200	1 10 0	22 16 0	All these trees were mossed, and are growing well, with exception of E. corynocalyx and E. corymbosa.
„ corynocalyx	780	1 10 0	1 3 4	
„ crebra	18,000	1 10 0	27 0 0	
„ leucoxylon	18,000	1 10 0	27 0 0	
„ marginata	880	1 10 0	1 6 4	
„ maculata	2,800	1 10 0	4 4 0	
„ paniculata	17,000	1 10 0	25 10 0	
„ resinifera	5,000	1 10 0	7 10 0	
„ rostrata	8,400	1 10 0	12 12 0	
„ siderophloia	10,000	1 10 0	15 0 0	
Totals	158,660	..	408 15 2	

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NORTH ISLAND
(TE IKA-A-MAUI)

NEW ZEALAND

SHOWING LOCALITIES AND ESTIMATED QUANTITIES OF
MILLING TIMBER ON CROWN LANDS, STATE FORESTS, AND FOREST RESERVES, 1906.

Scale of English Miles

10 5 0 10 20 30 40 50 60 70 80 90

Reference

Cities — thus ●
Boroughs — thus ●
Towns
Railways
Roads

THE numbers in red on the map correspond with the numbers in the first column of the Schedules of each Land District.

T A S M A N S E A

M I D D L E I S L A N D

Bay of Plenty
Hauraki Gulf
North Taranaki Bight
South Taranaki Bight
Golden Bay
Tasman Bay
Kuramea Bight
Hawke Bay
Mahia Peninsula
South Latitude
175° East Longitude
COOK STRAIT

172° 173° 174° 175° 176° 177° 178°
34° 35° 36° 37° 38° 39° 40° 41°

By Authority: John Mackay, Government Printer

MIDDLE ISLAND
(TE WAI-POUNAMU)

NEW ZEALAND

SHOWING LOCALITIES AND ESTIMATED QUANTITIES OF
MILLING TIMBER ON CROWN LANDS, STATE FORESTS, AND FOREST RESERVES, 1906.

Scale of English Miles

10 5 0 10 20 30 40 50 60 70 80 90

Reference

Cities
Boroughs
Towns and villages
Railways and stations
Roads

T A S M A N S E A

S O U T H P A C I F I C O C E A N

Golden Bay
Tasman Bay
Karamea Bight
Pegasus Bay
Banks Peninsula
Canterbury Bight
Otago Peninsula
Foveaux Strait
Stewart Island

South Latitude

167° 168° 169° 170° East Longitude 171° 172° 173° 174°

By Authority John Mackay, Government Printer