Naseby Nursery also had a very successful year. There has been a very great improvement effected in the nursery generally, and tree-raising there will be more consistent than in the past. The actual labour-cost of raising 520,000 seedlings was 4s. 7d. per 1,000. With all supervision, &c., included, the total cost will not exceed 5s. per 1,000. Considering that the nursery is over 2,000 ft. above sea-level and climatic conditions unusually severe, it says much for the line-sowing system. The ranger in charge, in commenting on the system, states that the seed sown under frame conditions germinated rather more rapidly than the drill-sown seed, and in height growth during the first three months had the advantage. Subsequently, however, the drill-sown trees have surpassed the former in both height and growth, and general development. Weed-growth was also more easily controlled in the drill system. It may be stated here that for the purpose of ascertaining whether there was any permanent beneficial effect from protective covering the scrim was allowed to remain on a section of the seed-beds. The result was that, although the seedlings were certainly taller than those from which covering had been removed, a few months afterwards no difference can be detected.

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The total estimated number of trees available for transfer from all stations is 5,271,750. this number, 725,000 are two-year insignis pine available for transfer to farmers and outside sources.

## TREE-NURSERY STUDIES.

In connection with the cost of production it is interesting to note that approximately half the cost is accounted for by weeding, and several experiments have been carried out in order to test the most effective and cheapest method of dealing with the matter. The experiments were as follows:-

First Method: Covering the soil between lines with a mulch of sawdust to a depth of about 1/2 in. This proved a very efficacious and cheap method, which resulted in almost complete suppression of weeds without any detrimental effect upon tree-development.

Second Method: Application of Thermogen paper. The papers for this experiment arrived too late in the season to thoroughly test the method. The study is being continued.

Third Method: Sterilization of the ground by burning. This was done with the Hauck burner

on a small scale, and the results are very satisfactory. The cost per acre works out at £16 ls. This, on the basis of 500,000 trees per acre, would cost 7<sup>3</sup><sub>4</sub>d. per 1,000. In addition to the above cost, there was a proportion of weeding also, and this cost 10s. per acre, or less than 4d. per 1,000 trees. The total cost of applying this method would be approximately 8d. per 1,000.

Of the trials so far tried this appeals to me as the most logical, and it is certainly the cheapest.

## FOREST-PROTECTION.

There is apparently no disease of a serious nature with the exception of the spruce-aphis, which has for the past few years taken annual toll of the Piceas and Abies. Luckily, the area of these species is small.

The usual fire-protective measures have been observed, and it is satisfactory to report that no fires of any sort have occurred. The fire-districts system seems to be operating well, and there has been no breach of the regulations regarding these, and the adjoining settlers have willingly co-operated with the officers in charge at the various stations.

			REVEN	UE.							
			1924-25.			19 <b>23</b> –24.			1922–2 <b>3</b> .		
			£	8.	$\mathbf{d}$ .	£	s.	$\mathbf{d}$ .	£	S.	$\mathbf{d}$ .
Sale of trees			1,822	3	6	1,893		8	1,759	9	6
Sale of tree-seeds			63	3	0	82	11	0	55	19	10
Sale of firewood			73	6	3	89	12	6	<b>7</b> 5	<b>2</b>	6
Sale of posts, &c.			5	- 2	0	5	18	6	6	18	8
Grazing			202	11	6	235	8	11	41	10	0
Rental of departmental cottages			282	17	3	297	$^{2}$	1	761	13	10
Sheep and wool			14	10	0	53	12	5	217	16	10
Miscellaneous	• •	• •	39	7	10	25	0	0	29	0	1
			£2,503	1	4	£2,683	4	1	£3,759	9	6

## Proposals for 1925-26.

During the coming year it is proposed to increase planting operations, and, in the aggregate, allowance has been made for the planting of 5,000 acres of new area. The distribution over the various plantations is as follows:-

Greenvale forest plantations			• •			300 ε	acres.
Blue Mountain forest plantation	s			• •		1,100	,,
Naseby forest plantations						100	,,
Hanmer Springs forest plantation	ons					1,500	,,
Balmoral forest plantations	• •		• •		• •	2,000	,,
m							
Total		••	••		• •	5,000	,,

The 300 acres of planting at Greenvale practically completes the plantable area available, and the main operations will then be transferred to the Blue Mountain area, where it is hoped that ultimately some 18,000 acres will be available for planting. An area of 1,100 acres of this has been resumed in

the meantime, and operations will be immediately commenced there.

It will be necessary also in the near future to acquire other areas of suitable extent in the Canterbury Land District, and a report has already been furnished regarding probable planting-sites.