Schedule II.—Statement of Expenditure.

	For Year. £ s. d.	To Date. £ s. d.
Planting operations and maintenance—		
Tree-planting		1,106 1 11
Pitting		1,552 14 0
Clearing		963 17 0
Cartage of trees		179 13 3
General upkeep of plantation	139 19 10	3,137 12 10
General repairs		138 11 7
Horse-feed		33 16 3
Permanent works—		
Fencing		471 0 3
Purchase of land		10 4 3
Formation		36 13 0
Buildings		355 4 9
Stock, implements, &c.—Tools, implements		322 1 7
Supervision and clerical—		
Salaries—		
Supervision of free labour		
,, prison labour		957 9 7
Nurseryman's proportion of, and clerical assistance	25 0 0	
	£164 19 10	£9,265 0 3

H. A. Goudie.
Superintending Nurseryman.

Progress of Afforestation in Rotorua District.

[By R. Glass, Plantation Foreman, Whakarewarewa.]

To be of much value, a criticism or appreciation of any work must be based upon a clear understanding of the object of the work, and some knowledge of the difficulties to be overcome, and the problems to be solved in the endeavour to attain that object. With this knowledge and understanding one is able to judge, to some extent at least, as to the suitability of the methods employed and the possibilities of their success; but an opinion formed without due consideration of the special circumstances of the case will almost certainly prove erroneous. Hence it may be desirable to state, by way of preface, that the main object of afforestation work in Rotorua is the production in the most economical manner of such timbers as will meet the demands of the market in the near future. The difficulties to be overcome have arisen chiefly from the fact that it is necessary to grow exotic trees, from the limitations imposed by the climate, and from the severe ordeal the young trees are called upon to endure when they are planted on open country instead of growing naturally under the shelter of older trees. The slow growth of native trees prevents their being utilized for afforestation, and the selection of exotic species is rendered difficult by the fact that it is almost impossible to predict how a given species of tree will behave under new conditions. In one case it will thrive beyond expectations, and in another prove a comparative failure. The results of experiments made in other countries, though very valuable, are often modified by apparently trivial differences in local conditions. Therefore direct experiments have been required, to ascertain which are the most suitable species of trees and the most advantageous systems of management; and, whilst in agriculture one season's growth will usually determine the success or failure of an experiment, in sylviculture five to ten years, or even more, may be required—in fact, such problems as the comparative worth of various species cannot be finally solved till the timber is cut. This being so, the forester must carefully consider the qualities of the local soil and climate, the habits and requirements of the trees, and their probable value as timber-producers, and, as they develop, must watch closely for indications of success or failure, and, when necessary, alter his methods accordingly.

A consideration of the progress of the work of afforestation in Rotorua divides naturally into three sections—the past, the present, and the future.

The Past.

The work was begun in this district in 1898. Some small groups of trees had been planted previously as a test of the capabilities of the locality, but in that year the work was definitely undertaken by the establishment of the nursery at Whakarewarewa. Two areas were selected for planting, one at Whakarewarewa adjoining the nursery, and the other at Waiotapu; at the latter the experiment of employing prison labour was tried, the first gang of prisoners arriving in February, 1901. The experiment proved a complete success, providing healthy interesting work for the prisoners, and affording an opportunity of removing first offenders from gaol surroundings, whilst the value of the work done helps to reduce the cost of prison maintenance to the State.

Planting operations were begun on a small scale, the first season's output consisting of 23,000 eucalypti, the second season's of 180,000 trees of various genera, and the third of 315,000. The results showed the wisdom of making a small beginning; of five species of eucalypti first planted all but one