the landscape I doubt if the assets of the colony would be commensurately increased. Tree-growing for timber requires to be learnt like any other business, and very few people have the necessary knowledge how to plant or maintain plantations, so that if it is desirable to expend more money in this direction it may as well be done by increasing the annual vote for tree-planting by the Government under the present system. Free distribution of trees by Government would also be ruinous to nurserymen who have invested their all in purchasing and cultivating lands for this purpose, to say nothing of the cost incurred in working up stocks and keeping them up to date as the trade requires. Had the nurserymen of this colony been negligent in keeping up their stocks to public requirements, or charging an exorbitant price for same, the matter would present a very different aspect. The ruling rates for trees of all descriptions are lower in New Zealand than in any other British colony, and if it is necessary to supply trees gratis to settlers in order to make a success of Arbor Day the subject had better be allowed to rest until the people begin to appreciate the advantages of planting. The feeling that the Government should do everything is yearly increasing, and the next proposal we may expect to have submitted is that the planting as well as supply of trees should be undertaken by the Government on private lands. In fact, this proposal was actually made by a settler in Otago, who offered to allow this Department to supply trees and plant them as a shelter-belt on his farm provided the work was done according to the special requirements of the owner.

I might, however, suggest that a more practical way of encouraging tree-planting throughout the colony would be to carry trees, no matter to whom consigned, free by rail. The cost to the country would only amount to a few hundreds per annum as compared with free distribution, which would certainly run into thousands, while the tree, being paid for, is more likely to be taken care of than if supplied gratis. The very fact that trees could be had for nothing would tend to carelessness, as they could be replaced for the asking during another season. Tree-planting might be further encouraged by the free railage of wire netting for protecting plantations, as of late years (especially in the south) settlers have almost given up the formation of plantations owing to the rabbit-pest. Settlers might also be encouraged in this direction if the increased value of land from tree-planting during the first ten years were exempt from taxation provided that not less than twelve hundred trees per acre were planted and maintained in a proper manner.

Legislation seems desirable to prevent the planting of forest trees on the northern side of any street or road running in an easterly and westerly direction at a less distance than 2 chains from the boundary-line. Plantations in such positions are common in this colony, and not only is the cost of maintenance of roads by local bodies greatly increased, but a positive danger to traffic is caused during frosty weather through exclusion of sunshine.

Replanting of Native Trees.

In consequence of nearly all New Zealand timber trees being surface rooters, their adaptation for general afforestation in open land is practically prohibited through the damaging effects of exposure to sun and wind. The principal exceptions are totara, kowhai, puriri, broadleaf, and three varieties of Fagus, all of which are easily raised from seeds or cuttings, transplant well, and make comparatively fast growth up to a certain age, when their further progress is almost unnoticeable.

Other trees of commercial value, such as rimu, rata, miro, matai, kahikatea, kauri, kawaka, and silver-pine, have been suggested by Mr. Perrin and others as suitable for extensive planting, especially on the pumice lands of the North Island, but I fear such recommendations have been made through want of practical knowledge as to the special treatment necessary for their success. From an experience of over twenty years in cultivating native trees and shrubs I unhesitatingly assert that to plant any of the above-named trees in open situations will result in total failure. All the varieties mentioned require considerable shade, from the seedling to the adult stage, and this can only be afforded by planting them amongst partially cleared forest lands, where the natural undergrowth affords them the requisite amount of protection.

The prevailing class of under-scrub, or second growth, in our bushes is unfortunately of exceedingly rapid growth compared with the trees under notice, so that unless constant clearing was undertaken to prevent the crushing-out of the permanent trees by their natural protection they would be suppressed within a comparatively short period. This work would be of a very costly nature owing to the necessity of continually clearing over a long period, this period being limited only by the permanent trees reaching a height above the undergrowth where their leading stems would be free from further suppression, while their sensitive roots would still have the necessary protection from the damaging influences of exposure to sun and wind.

In connection with the planting of the aforementioned trees for timber purposes, it must be considered whether this would be a successful undertaking from a financial point of view. Our knowledge of the age of mature trees of this class, although limited, is nevertheless probably sufficient for present purposes. The following table, taken from the "Forest Flora," and the late Mr. W. N. Blair's "Building-materials of Otago," will show the approximate ages of our commonest timbers.

Name.	Approximate Ages. Years.	Name.	Approximate Ages. Years.
Manuka	100 to 250	Rimu	400 to 650
Rata	200 to 450	Yellow-pine	300
Broadleaf ...	340 to 700	Silver-birch	150 to 330
Pohaka	200	White-birch	80 to 180
Miro	150 to 300	Kauri	600 to 3,600
Totara	470 to 800	Cedar	150 to 400
Matai	270 to 400	Red-birch	130 to 300
Kahikatea	370 to 600		

The ages of the above-mentioned trees were ascertained by counting the number of annual growths on recently cut sections of the trunks. This method of arriving at an approximate estimate of the age of a tree, although accepted by the leading authorities on vegetable physiology,