

time it was most desirable, in view of the many settlers in the colony who in their native land had been accustomed to vine-culture, and who, if they could obtain the right varieties, would engage in that important industry here, that a collection of the best wine-grapes should be grown in the colony. I therefore suggested that the Government should import under proper precautions, and cultivate at an experimental station, a collection of the best wine-grapes, to be obtained from reliable sources, free from phylloxera and other disease. My suggestions have met with the Minister's approval, and for fuller particulars thereof I beg to refer you to my memorandum.

During the latter half of March I made a tour through the Manawatu and Wairarapa districts for the purpose of ascertaining the condition of the fruit industry there. In the new settlements along the Manawatu Railway Company's line I found much interest manifested by the settlers in fruit-culture, and numerous young orchards planted, and others were preparing to plant as soon as the land can be cleared. The climate along the coast is mild and well adapted to fruit-culture; but shelter from the seaward winds must be provided. In Wairarapa I found fruit culture, on the whole, much neglected. Here and there might be found a well-cared-for orchard, which made its owner profitable returns; but they were the exception, and the rule was, neglected orchards overrun with pests. The small settlers in the Wairarapa certainly want wakening up to the knowledge of the money there is in fruit-growing when properly attended to; but not more so than do the settlers in the Hutt Valley, which, owing to its being the only piece of arable land in close proximity to Wellington, one would expect to find almost a continuous stretch of orchard and market-garden. Instead, the cared-for profitable orchards might be counted on one's fingers, and vegetable-culture is almost abandoned to a few Chinese, and the land at the same time provides grazing for a few cows—land which, under a proper system of *petite* culture, could easily be made to yield ten or twenty times the present return made from it.

The matter of greatest importance to the fruit industry that has come under my notice is the want of a properly-equipped horticultural experimental station, at which all subjects bearing on profitable fruit-culture should be carefully studied, and practical results aimed at, for the benefit of the colony. The following would form some of the objects of such an experimental station: The growth of a comprehensive collection of fruits, embracing not only apples, pears, and stone-fruits, but likewise citrus fruits, olives, grape-vines, both table- and wine-grapes, small fruits, and any other fruits not commonly grown, but which present possibilities of profitable culture. All promising new fruits should be imported, and their value for this colony be ascertained. Records of the behaviour of each variety should be made from season to season: this, in time, will form a most valuable record of the commercial value of the variety. As in the American experimental stations, the head station would from time to time make arrangements with reliable persons to test varieties in their districts, and thus a mass of valuable information on that matter would be ascertained at little expense.

The nomenclature of our fruits is in great confusion, and causes no small loss to our orchardists. The loss occurs in this way: A man makes up his mind to go into fruit-culture, and he visits some orchards in the district where he intends to settle, and, finding certain varieties doing exceedingly well, he wisely determines to plant largely of that variety or varieties, and he orders from the nurseryman several hundred trees, perhaps, of those choice and profitable kinds. He plants and cultivates carefully, and in three or four years his trees begin to bear; when he finds, to his great disappointment and loss, the variety is something quite different to what he expected, and, probably, in comparison, nearly worthless. I write feelingly on this matter, as time after time have I experienced this loss and I think every orchardist in the colony who grows a few acres of fruit can bear me out in this matter. Owing to the confusion at present existing in the names of our fruits, there is hardly any dependence to be placed on getting kinds true to name. The standard collection at the head experimental station would in a short time do much towards putting this matter straight, and be very valuable as a reference by which the names of doubtful origin might be verified by comparing the fruit with that on the standard trees. Scions in limited quantity would be available for nurserymen and others desiring them.

When the experimental station is established, the importation of cuttings, trees, or fruits from countries where pests exist, and from which this colony is at present free, should be prohibited, except such importations of new varieties as the Government might make from time to time, under proper quarantine precautions. This is of the greatest importance, as, although we suffer from a number of troublesome pests, yet there are a great many more, and very serious pests too, in other countries, from which this colony is at present free—for instance, the dreaded "peach yellows" of the Eastern States of America, a most infectious and fatal disease, from which a tree once attacked has never been known to recover; it has done millions of dollars' worth of damage to the peach-growing industry there. Then, there is the curculio weevil, which destroys the plum, apricot, and nectarine crops in the United States; also, a borer insect which ruins many peach-trees, and quite a large number of destructive scale-insects, which do great damage not only to the orange and lemon, but also to all deciduous fruits. In Australia there are also many destructive insects from which this colony is at present free—for instance, the curve-winged apple-moth, apple-tree borer beetle, apple-root borer, the apple beetle, the Rutherglen fly, cherry-borer, &c. I consider an immediate effort to protect the colony from the importation of any more pests is of great importance to the fruit industry. The work of the experimental station would have a large field of usefulness before it in the experimental study of stocks. The most profitable stocks on which to grow the many varieties of fruit is a subject which has as yet received but small attention, but which offers a large field of investigation. The insect and fungus enemies of our fruit trees and vines call for more effectual, cheaper, and more easily-applied remedies than we at present possess: experiments in this direction would form no inconsiderable part of the station's work. The study of the life-history, and means of destruction of any other noxious pests that may from time to time appear; the effects of various manures, varied styles of pruning, and methods of preserving various