

per acre; after the soil has been reduced to a fine tilth, all that would be required afterwards is to keep the surface free from weeds, say for three or four years, when the plantations could take care of themselves. The only outlay after that period would be for cutting and peeling. There is practically an unlimited demand for mimosa bark in Europe, which, in my opinion, keeps up the high price. In Victoria, mimosa plantations yield a net annual return of £4 to £5 per acre. I may say that, at my suggestion, Mr. Firth, of Auckland, laid down several acres in mimosa. I would strongly urge that the railway reserves in Canterbury be utilized for this purpose; the fences being already erected the outlay would be restricted to the cost of preparing the ground, sowing, and keeping free from weeds for three years. The kinds I would recommend are the "*Acacia decurrens*," the "*Acacia pycnantha*," and the "*Acacia saligna*." The last-named is only adapted for the Auckland District. I would recommend that this mimosa-planting be brought under the Forestry Department when created—that is, in regard to management and disposal of the bark and timber. A valuable gum, which has become an article of export from Australia, is obtained from these trees. I am not certain at present to what altitude the cultivation of the mimosa can be carried in the South Island.

Castor-oil Plant.

This is already naturalized in many parts of the North Island, and attains a large size. It is evident from this that it could be grown to advantage for the sake of the oil derivable from the seeds, which, in addition to its medicinal value, is largely employed as a lubricator. It is also used in the manufacture of soap.

The Ground-Nut.

This plant yields from 40 to 50 bushels per acre. In the New York market these commonly sell at from 10s. to 12s. per bushel; they have a large sale in this colony, and have grown well in Auckland. They are largely imported into England for the sake of the oil, which is used in soap manufacture; any soil, except extremely tenacious or wet soil, will do for them. The pea-nut is the true fruit of the plant, which is thrust into the ground whilst growing. They might be cultivated in any part of the colony where the potato will grow, but they prefer a warmer climate to a colder one. I should sow the seed in drills. The value of the pea-nuts exported from the African coast now amounts to £1,250,000 per annum. The labour of gathering can be done by children. I cannot state the actual cost of cultivation, but I am convinced that it could be cultivated at a profit, even at our high rates of wages. The pea-nut requires to be planted every year. It belongs to the pea family, and the fruit is a true legume, notwithstanding its strange habit. The seed could be obtained from New York or San Francisco. Care should be taken to see that the nuts are not roasted before leaving America. It is a known fact that hickory nuts are so treated in order to prevent the acclimatization of the tree in other countries.

Canary Seed.

Canary seed is an article that is imported to a considerable extent. The question of ravage by sparrows having been raised, I may say that in an experimental plot of canary seed in the Auckland gardens, the sparrows threatened to take the seed, but they afterwards left the plot and never returned to it when the seed was ripe. We found that they had really come for the small green caterpillars with which the young plants were covered. We got a good crop from the plot. It was all that could be desired. At that date canary seed was much dearer than it is now. We were paying 1s. per pound for Victorian seed. It is a grass—*Phalaris canariensis*—and it grows wild in many parts of New Zealand, but not so luxuriantly as in cultivation. Our crop did not cost us more than 1d. per pound, though it was only on a small scale. The same remarks apply to hemp seed, for which there is a demand, though not so great in extent. Canary seed is manufactured into oil, but it could not be done profitably here. It is chiefly used for feeding birds.

Tea.

There can be no question that the Assam variety of tea can be grown very well in the North Island, but the cost of labour would prevent its being cultivated at a profit.

There are many small things that might be mentioned, such as teazles for cloth finishing; but perhaps the quantity used would not be sufficient to make it worth while to cultivate them.

Drugs.

Quinine can be grown in open fern-tree gullies to the North of the Auckland isthmus. There were trees in the Auckland Acclimatization Gardens. The plants require great care in raising and in culture until they are about 2 feet high—that would be at about three years old. They should then be planted out in open fern-tree gullies, care being taken to avoid deep gorges; they will then need no further care, except being kept clear of overgrowth or the drip of other trees. A small return might be expected at the end of the fourth year after planting out, or the seventh year of the tree's age. At first this return would consist only of the pipings—that is, the bark and the very young shoots—and would increase from year to year for many years; the bark is peeled off the side branches, and it grows again. The success of the Cinchona plantations in the Nilgherri hills has been greater than was anticipated, and a handsome revenue is now being obtained from them under the Indian Forest Department. I do not look upon this cultivation as a new industry, but simply as an addition to the stock of the economic plants of the colony.

Opium.

As a matter of fact, the opium poppy has been grown in Victoria in a very careless manner, receiving no special attention, the result being a profit of £30 per acre. There are several varieties in cultivation. The best for the colony would be *Papaver somnifera* and *Alba glabratum*—the Smyrna poppy, variety *Beta*, might also be introduced. On ordinary soils the plant is of very easy cultivation. The Indian exports alone are valued at £13,500,000. At the Government sales in Bengal in 1873 50,000 chests were sold at £139 per chest, the profit on each chest being estimated at £90. The value of Chinese-grown opium is fully equal to that of Indian. The plant can be sown broadcast and thinned