

fumes, fibres, material for the manufacture of paper, and numerous other kinds, cannot easily be overestimated. Grasses and forage-plants should receive special attention.

But it is not sufficient to introduce the plant or even to propagate it; its adaptation to the climate of New Zealand and its capabilities for profitable cultivation will require to be carefully ascertained before an accurate opinion of its value can be arrived at. A plant that may be profitably cultivated at the Bay of Islands or Whangarei may prove useless on the Canterbury Plains. A plant capable of being grown with profit in a limestone soil may be worthless on the deep, loamy soil of other districts. It follows that experimental gardens may be advantageously established in other portions of the colony. I look upon this as affording one of the cheapest and readiest means of increasing the resources of cultivators of the soil, and, with the gradual establishment of the permanent nurseries of the Forest Department, hope to propose the appropriation of an annual sum for the maintenance of small experimental gardens in the Eketahuna District in the North Island, and in the Oamaru District and the Winton District in the South Island. Each of these gardens would have its special kind of work, which would to some extent be determined by climate and situation. The Whangarei garden would be the chief centre for the introduction and establishment of economic plants of a semi-tropical character, Mangainatoko or Eketahuna and Winton for grasses and forage-plants, Oamaru for plants yielding oils and perfumes; but in no case would work be restricted to these groups. These gardens would also afford the means of supplementing elementary instruction in the general principles of plant-cultivation by a certain amount of practical teaching. In this way they would serve the purpose of preparatory schools of pomology and agriculture; and the small expenditure necessary for their maintenance would be vastly outweighed by the direct advantages afforded by their establishment.

Elementary Instruction.

Instruction in the nature and characteristics of plants and animals and the processes of agriculture might be imparted in primary schools by teachers specially qualified for the work, and, given effectively, would form an excellent groundwork for the higher teaching of the school of forestry and agriculture, especially if the elementary teaching could be supplemented by practical teaching in local experimental gardens, as already suggested. It is not by any means necessary that all the children in any given school should pass through a course of this kind. The teaching should be restricted to the senior classes, and might be given by itinerating teachers, who should have charge of all schools within a given district, and should give at least two lessons per week to each class. Teaching of this kind must be accompanied by the examination of living objects by the class as far as possible. Many of these would be easily obtained, as the ordinary weeds and cultivated plants of the farm are to be found in all country districts.

In this way it would not be difficult to impart a large amount of knowledge respecting the uses, habits, and general characteristics of the ordinary fruit-trees and the plants of agriculture as well as of the chief insects which attack plants and animals. But the teaching should be carried further: it would not be difficult to impart a knowledge of the general structure of plants and animals, and to some extent of their anatomy and physiology. The chief facts connected with the germination of seeds, the mode in which plants and animals obtain their food, the processes of assimilation and development, may be stated in such a manner as to interest children, and made a grand means of developing their faculties of observation and judgment. And in the case of many scholars this would evoke a direct and lively interest in the processes of farming and gardening. Even if this special instruction were not carried to a higher grade, the development of the power of observation that would necessarily ensue from thorough teaching would be of great benefit to the scholars, whatever might be their subsequent walk in life, while it would be of special value to those destined for agricultural pursuits, as they would enter upon their life-work with an intelligent and appreciative knowledge of its chief processes. To what extent this could be aided by adopting the series of lesson-books on agriculture now in use in Irish schools I am unable to judge; but it is clear that the special knowledge obtained in the primary schools would be of the greatest value in facilitating the progress of those scholars who might enter the school of agriculture.

The kind of elementary teaching here described might be effectively given in many cases by female teachers, and would afford a new opening for females gifted with any special aptitude for the work, and prepared to undergo the necessary training.

Scholarships.

In order to encourage the acquisition of elementary knowledge in the cultivation of the soil, it is desirable to offer a number of free scholarships in the school of forestry and agriculture for competition amongst scholars in the primary State schools and in private schools of similar grade. Each scholarship should be tenable for two or three years, according to the period adopted for the course, and its yearly value should not exceed the actual amount of the boarding-fee, probably £35 per annum. The cost of travelling should be borne by the parents or friends of the successful competitor. The number of scholarships should be six for each Island, which should be allotted to the different educational districts as nearly as may be in proportion to the number of scholars; so that in some cases it would be necessary to unite certain small districts for this purpose. It is desirable that the advantages to be obtained from these scholarships should be diffused over the widest possible area, and in order to carry out this