

TRAINING OF TEACHERS.

Provision is made in the teachers' training colleges for some instruction in agricultural science so that teachers may be better prepared to link up nature-study in the country schools with farm experience, and to follow the suggestions of the itinerant instructors. The training of teachers for this work is also continued by the itinerant instructors in most districts by means of short refresher courses held during vacations and, where possible, at a State demonstration farm, so that the assistance of the experts in the Agricultural Department may be obtained. In addition, regular weekly instruction is given to pupil-teachers in science, including dairy science and agriculture, at Saturday classes conducted in suitable centres throughout the Dominion, and often taught by the itinerant instructors in agriculture. The subjects of agricultural science and dairy science are two among six optional subjects for the Teachers' Class D Examination, and two among twenty optional subjects for the Teachers' Class C Examination. The Class D Examination is the lower qualification, and corresponds in standard roughly to the Matriculation Examination. More than 80 per cent. of classified teachers in primary schools hold either the D or the C certificate.

II. NOTES ON THE FUNCTIONS PERFORMED BY THE DEPARTMENT OF AGRICULTURE IN RELATION TO INSTRUCTION IN AGRICULTURE.

The main part taken by the Department of Agriculture in agricultural education, besides the administration of the Ruakura Farm School, referred to elsewhere in this report, has been that of diffusing knowledge by means of more or less direct advice given to producers by the general staff of the various divisions of the Department, aided by its scientifically trained officers. Though its functions were originally purely administrative, the Department, having an intelligent and progressive farming community to deal with, has gradually evolved methods by which a considerable section of the officers engaged in the duties imposed by the various Acts which it has to administer have now become a medium for conveying to producers practical knowledge, based upon scientific facts or conclusions, for the purpose of enabling them to cope to the best advantage with the various animal and plant diseases or pests for the repression of which the legislation entrusted to the Department's administration is designed. The system is by no means uniform throughout, neither is it complete; but it does, on the whole, prove of marked value to producers, and it is satisfactory to note that as instruction has increased the necessity for inspection has diminished.

Apart from this combination of instruction with inspection, certain more or less exclusively instructional services are maintained.

The lately established Fields Division is almost entirely devoted to instruction, its field officers' duties consisting mainly of advising farmers, often upon the farm itself, on matters relating to crops, pastures, fertilizers, &c. The keenness of the demand for the services of these officers well illustrates the usefulness of their work. The Dairy Division has its dairy instructors advising and assisting dairy-factory managers, its farm dairy instructors acting in co-operation with dairy factories in advising and assisting dairy-farmers to furnish clean milk; and its milk-testers doing their part towards building up better-yielding herds. The Horticulture Division has its orchard instructors and apiary instructors, both combining instruction with inspection. The Live-stock Division has a large staff of inspectors, many of whom now combine instruction with inspection; field veterinarians who give much instruction and advice to pastoralists and dairy-farmers on matter pertaining to animal health; poultry instructors; a wool instructor; and an instructor in swine-husbandry.

Side by side with this work, investigation and research are carried on in the field in close co-ordination with, and based upon, the activities of the three laboratories—veterinary, chemical, and biological—maintained at headquarters by the Department. Each of these establishments is staffed by capable officers, well equipped with scientific knowledge, who work in conjunction with the field officers, thus enabling the results of laboratory work to be tested out and given practical effect in the field. The Biological Laboratory staff has been considerably increased in late years, and a fourth laboratory, associated with the Dairy Division, and intended to deal with matters of dairy-produce manufacture, is being established. These laboratories have done good work in assisting to meet the requirements of the quickly expanding primary industries in the direction of investigation and research. It is recognized that due regard has been given by the Government to their requirements as to staff and equipment, and no doubt, in view of the present-day realization of the necessity for assisting agricultural education and aiding the further development of the resources of the land, provision will be made for any necessary further growth on sound lines, both as regards staff and accommodation of these valuable branches of the Department's activities.

Further lines of instructional work lie in the short courses for farmers given in country centres—mostly in the off-season. These are organized by the Fields Division, and officers of all branches of the Department take part in giving lectures and demonstrations to the farmers attending. These courses, termed "farm schools," each occupying about a week, are evidently appreciated by farmers, and they constitute a distinctly valuable means of instruction.

Boys and girls' agricultural clubs are also conducted in some districts in conjunction with local farmers' organizations, with the assistance of the Education Department, the Department of Agriculture bearing most of the cost. An expansion of this means of instruction is anticipated.

The large State farms at Ruakura and Weraroa have been responsible for much demonstration work, which has proved in itself of great educational value to producers. In addition, a number of smaller farms and experimental and demonstration areas are established in suitable rural centres. Also, two demonstration dairy farms, financed and managed by local enterprise, are assisted by advice from the Department's officers and aided financially by subsidies from the State.