

of counter-effort to demark the future, a more liberal appreciation of the measure of a field officer's service and opportunity, both on his own part and on the part of the public, will rule.

Central Development Farm.

It is felt that more is required of this Division than the control of rabbits and weeds by field officers, and the direction of the latter and of sundry unsystematized and non-co-ordinated experimental projects, and the rendering of more or less casual advice on agricultural matters by a semi-administrative, semi-professional staff at headquarters. The discharge of these duties, important as they are, leaves something to be desired if the Division is to exert that influence upon the development of agriculture which should be its most valued prerogative. It must become less of a mechanical regulating agency and more of a vital energizing force, discarding as far as possible the routine of the office, and seeking inspiration and opportunity for its leaders and specialists, as well as for the rank and file of "field" workers, in constant intimate association with the affairs of the farm and the country. For officers whose aspirations are for rural welfare, and whose life-work is the study of farm problems, the city is no fit environment. Representation of this and other incidental advantages of a change of headquarters from city to farm, duly made and considered, have resulted in various alterations and arrangements at the Weraroa Experimental Farm to adapt it for the purpose in view. These arrangements were sufficiently advanced at the end of the year to enable the transfer of the divisional headquarters to be effected during the month of April, 1917. The farm is to be known henceforth as the "Central Development Farm."

The main object of this change is to bring together, under conditions favourable for the study of farm problems, certain professional officers of the Department, and to apply their efforts jointly and individually to important investigations arising out of the needs of New Zealand agriculture as a whole, and to such other activities as are likely to promote national welfare in the agricultural domain.

The professional staff, with the co-operation of the district officers and experimental farms, will devise, co-ordinate, and set in train experimental work on the farms and on special experimental areas, conduct farm-management investigations by cost-accounting methods at the experimental farms and by special farm surveys, carry out weed surveys with a view to rational weed-control, and generally promote inquiries as to the status of agriculture throughout New Zealand, with a view to more complete or more economic utilization of the country's various district resources and development of its potentialities. This will bring about in time a highly organized, efficient central bureau of agriculture, with associated district bureaux. It will be readily appreciated that the value of this work will depend largely upon the ability of the district officers, who will require to discharge the executive part of the programme, to act as "intelligence" officers for the central bureau, to communicate and demonstrate results of value to the farmers, and to co-operate with local organizations in all propaganda for rural betterment.

Student-assistants.

In order to ensure the future supply of field officers of the right kind arrangements have been made for a system of student-assistantships at the Central Development Farm. The training of about twenty young men, to some extent by definite instruction from the professional officers stationed there, and largely by association with them in the work of the station, and the experience thereby gained will, it is hoped, enable the district work in the course of a few years to be brought by degrees to a satisfactory standard.

EXPERIMENTAL FARMS.

Central Development Farm, Weraroa.

The past year has not been altogether favourable for the ordinary farming and dairying operations. The spring was specially wet, rendering the cropping and experimental operations unusually difficult and tedious. Phenomenally dry conditions set in early in November and continued up to the end of the financial year. The effect of this unusual condition on the returns from dairying has been most marked.

With regard to crops, potatoes were grown on a more extensive scale, and variety and manurial experiments were included. The dry conditions seriously affected the yield, which did not exceed 5 tons per acre average. Cereal, forage, and root crops were satisfactory, oats yielding about 2½ tons of excellent chaff, in addition to being fed off by sheep three times, and in one paddock four times. When on a September ploughing yielded up to 36 bushels. Peas, tares, and linseed also gave satisfactory and payable yields. There were over 150 acres in crops of various kinds. Experiments were conducted on the manuring of crops, top-dressing for hay-production, and on lucerne and pastures.

The breeding of Friesian cattle has been fairly successful this year, although conditions have been much against high production. Young Oak de Kol heifers in their first lactation went over 300 lb. butter-fat, the two best of such records being 380 lb. and 404 lb. Female stock having now increased greatly in numbers it is intended to cull heavily next spring. The Shorthorn herd is in a less satisfactory position. The heifers that came in this year were disappointing both in appearance and production. The herd will require to be culled down from twenty-seven to twelve or fourteen. It is hoped that the advent of a new, specially selected Darbalara bull will result in superior stock.

The need for increased accommodation for staff and student-assistants, and of provision for laboratory and office facilities to enable this station to discharge its future function as the Central Development Farm, has caused much activity and preparation during the year. The adjoining section of 30 acres with its commodious homestead has been acquired for the purpose of a hostel. Buildings have been adapted for seed-testing and biological work, for soil and fertility investigations, and for divisional offices. Houses are in course of erection for the Director and the Biologist. New piggeries and woolshed and yards are nearing completion.