

FIELDS DIVISION.

REPORT OF J. BROWN, B.Sc. Ag., N.D.A., DIRECTOR.

Wellington, 19th May, 1916.

The Secretary of Agriculture, Industries, and Commerce.

I FORWARD herewith a report on the work of the Fields Division for the year ended 31st March, 1916. It may be noted that my tenure of the directorship covered nine months only of the period under review, my appointment dating from 1st July, 1915.

J. BROWN, Director.

THE AGRICULTURAL YEAR.

Viewing the position in a broad way, the average farmer has every reason for congratulation on, and very little cause to complain with, the results of the past season. With the gradual rise in stock and produce values since the beginning of the year, and favourable weather-conditions throughout the greater part of the Dominion, satisfactory returns have been obtained and every encouragement received to make the best out of the land. Certain disabilities have been encountered—higher prices for implements, fencing-material, sundry stores, seeds, and manures. In many cases this has simply meant doing without, or with less, for the time being. To know how to economize without depriving himself of actual necessities is one of the first lessons which the farmer has to learn. So far there has not been apparent any serious reduction in the supply of labour for the prosecution of farm-work, excepting it be in a curtailment of bushfelling operations.

While the general conditions have been good, the season in the North Otago district, and to a lesser extent in the major part of Canterbury, has been extreme in character and exceedingly unfavourable to crop-production and to pastures. The situation in these districts has been aggravated by the fact that the past season is the second successive season in which abnormally dry conditions have prevailed. The situation became acute in North Otago in February, 1916. Since then (up to date of writing) free railage and other concessions to settlers have been in continuous operation.

EXPERIMENTAL FARMS AND FARMS OF INSTRUCTION.

Ruakura Farm of Instruction.

The result of this year's work, it is hoped, has furthered the interests of both the farmers and the Department. Several new experiments have been undertaken, while others which were in progress have reached completion.

One experiment which has evoked considerable interest from farmers is the growing and harvesting of red-clover seed. An area of 10 acres was devoted to this experiment, and the resultant crop is heavy. Only a small quantity has yet been threshed, the bulk being stacked to allow of further drying. The amount threshed was just sufficient for farm requirements for this year's grass-seeding. The return from this crop is estimated at £16 16s. per acre.

A fine sample of mangel-seed has also been harvested, but nothing was accomplished in the way of saving swede-seed, as *Rhizoctonia* attacked the roots after planting and nullified the results of this experiment.

Taken all round the season's crops are quite up to the average, and in the cases of grass, clover, and lucerne hay they are well above the average. Mangels, potatoes, and turnips felt a dry period after the new year considerably, but the mangel crop is far from being light, and before the end of the growing period a heavy crop of roots will be secured.

Oats made an excessive growth of straw, to the detriment of grain-development. Wheat did particularly well, the crop ripening early and yielding plump, well-matured grain.

Heavy crops of ryecorn were harvested from the swamp lands, but barley only produced a light crop. Scotch tares were amongst the most profitable crops grown, as, apart, from the return in seed-value, they proved beneficial to the land in a series of rotations. Another profitable crop was the rape, the success of the fat-lamb experiment being solely dependent on this crop. It is also one of the best preparatory crops for grass-seeding.

All classes of live-stock are in good condition, and one of the main objects during the year has been to improve the breeds. The stock carried during the year shows an increase over the previous year, as also does the cash receipts from sale of same.

Cow-testing was carried on throughout the whole season, and thirteen Shorthorn cows were registered in the heard-book of the Waikato Dairy Shorthorn Association. The latest importation of two milking Shorthorn bulls added considerable value to the dairy stock, and already a number