

FIELDS DIVISION.

REPORT OF R. B. TENNENT, DIRECTOR.

The Fields Division, in a broad sense, has as its main objective the improvement of the general farming practices of the Dominion. Its principal work is along the lines of advising and instructing farmers and others by correspondence, personal visits by the Division's instructional staff, lectures, field days, &c., with respect to all improved methods in grassland management, top-dressing, silage-making, the growing and improvement of all farm crops, and such matters. Research work with a view to elucidating farmers' problems, and discovering improved methods of farming practices, is undertaken, and any desirable improvement is rapidly brought to the notice of the farming community mainly per medium of the instructional staff of the Division and the columns of the Department's monthly *Journal*. There is no question the Fields Division is an important arm of the Department and is of real value to the farming and pastoral interests of the Dominion.

The major operations of the Division are reported on below under specific headings and following a few comments respecting the weather conditions generally during the year, and the outcome of the season's cereal crops.

WEATHER CONDITIONS.

These varied greatly throughout the length of the Dominion, but the one outstanding point was the heavy summer and autumn rainfall, resulting in much more than usual grass growth. This was such in many districts that control with stock became difficult, and highly farmed land had the appearance during the summer of being under-stocked. In the Auckland Province the spring was cold, particularly in North Auckland, while the summer and autumn were exceptionally wet. The southern half of the North Island experienced a wet winter followed by a favourable spring, but a phenomenal summer on account of heavy rain in all districts. With respect to the South Island the weather was most variable. The winter was more or less normal but the spring somewhat dry. The summer, however, was unreliable, high rainfalls being experienced. These exceptional rainfalls followed by a broken autumn assisted pastures considerably and also had a beneficial effect on green crops.

ARABLE CROPS.

Conditions throughout the growing season were good, and prospects of heavy yields bright. Unfortunately in some localities harvesting was made difficult by wet weather and a fair amount of grain sprouted while in stock, while in some cases, through severe floods, crops were washed away. In districts where no severe damage was received record yields of grain have been secured—the yields as disclosed by threshings up to the end of April being appreciably higher than for many years past.

As regards the wheat crop, that portion of it threshed during the period January–April, 1936, amounting to 5,914,005 bushels, gave an average yield of 38·86 bushels per acre as against an actual yield for the 1934–35 season of 26·32 bushels. However, the per-acre yield of 1934–35 was the lowest on record for a number of years except for the 1931–32 season. The threshings of wheat up to the end of April accounted for 152,192 acres of the total estimated area of 240,200 acres in wheat for threshing. Thus, almost two-thirds of the area had been dealt with for an average yield per acre of just under 39 bushels. It is probable, however, that owing to flood damage part of the area sown will remain unthreshed or will give a reduced yield if threshed.

So far as oats are concerned, the position is quite satisfactory. The estimated area sown to oats for 1935–36 was 344,000 acres as against an actual area harvested the previous season of 274,616 acres. Threshings for the January–April, 1936, period disclose a per-acre yield of 48·26 bushels as against an actual yield over the whole Dominion for the 1934–35 season of 35·99 bushels.

It is estimated that 26,500 acres were sown to barley for the 1935–36 season as against an actual area harvested the previous season of 19,194 acres. Severe flooding was experienced in the main Canterbury barley-growing districts during the harvesting period, with the result that prime malting barley has been in limited supply and fairly heavy importations of Australian malting barley have had to be made to meet requirements. The growing of barley sufficient to meet the country's needs is a matter which must receive attention, and it is fully intended to give this matter special attention in the hope that arrangements satisfactory to both producers and users might be made prior to the sowing of the 1936–37 season's crop.

The area in potatoes in 1935–36 was estimated at 22,900 acres as against an actual area for the Dominion for the previous season of 23,001 acres. The planting of purer and better lines of seed potatoes as a result of the certification of potatoes is fully expected to have a great influence on the season's yield. Growers are looking forward to high yields, but at time of writing it is too early for the position to be stated with any accuracy. In some places on the heavier soils a fair amount of rotting of tubers has taken place due to the floods in late summer and in the autumn.

INSTRUCTION IN AGRICULTURE.

As reported in my last annual report, there is an ever-increasing demand for advice and instruction on all manner of subjects pertaining to farming matters. These are met by correspondence or by personal visits by the instructional staff. The personal visit is the most desirable method, and it is