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## FIELDS DIVISION.

## REPORT OF R. B. TENNENT, DIRECTOR.

The functions and work of the Fields Division are many and varied in character, but, broadly, the main objective is the improvement of the general farming practices of the Dominion. During the year under review the ramifications of the Division have further increased, and the ever-expanding nature of the work which the staff is called upon to perform requires a far greater general knowledge than has hitherto been the case. The increasing volume of work, together with work relating to new undertakings, has necessitated an increase in staff, and this position has been met to some extent.

Notwithstanding the increased volume of work requiring attention, matters in general have progressed smoothly, due to the whole-hearted manner in which the staff has tackled all duties assigned to it.

The main functions of the Division are reported on below under specific headings, following some brief remarks relative to the general climatic conditions during the year and a résumé of the 1936-37 season's arable crops.

## WEATHER CONDITIONS.

A wide variation in the general weather conditions was experienced during the seasons from North Auckland to Southland. The outstanding point as regards most districts was the frequent, rather than heavy, rainfall which brought about a plentiful supply of grass difficult to control with the stock available.

In the Auckland Province the year, in general, was a wet one, resulting in excellent pasture growth. The attempt to save this growth by converting it into hay and silage was somewhat nullified by a great deal of the hay being damaged by rain.

In the Wellington-Taranaki-Hawke's Bay-Wairarapa area the year was notable for the exceptionally low temperatures generally recorded, the lack of sunshine during the late spring and early summer, and the heavy and frequent late December and January rainfalls.

As regards the South Island, the northern half of the Island had unfavourable weather conditions generally. On the West Coast more continuous wet weather prevailed than has been the case for many years past. In other parts of the area mentioned the weather during the winter was seasonal, but during the summer and autumn it was very unfavourable to crops owing largely to a rainfall more continuous than heavy.

The weather in Otago-Southland, with the exception of North Otago, was excessively wet with low average temperatures. A fairly good autumn in 1936 was followed by a mild winter, which in turn gave place to a cold, late spring, summer, and autumn, with fairly extensive flooding during those periods.

## ARABLE CROPS.

The floods experienced in the South Island during the autumn of 1936 left the land wet and cold, and it was with great difficulty that farmers on the heavier soils managed to get their land prepared for sowing. In almost all cases wheat sowing was later than usual and some farmers used sprouted seed, with the result that germination was affected. It has to be admitted, however, that there were cases even where good, sound seed was used that the germination was unsatisfactory, and in most districts the crops did not tiller out in the usual manner, with the result that they were, on the whole, thinner than usual, and in most districts yields have been rather disappointing and several bushels per acre below expectations. Despite the wet weather this season the quantity of sprouted grain is small, and it is in much better condition than was the case the previous season. There has been considerable comment on the freedom of sprouted grain during the past season, but the non-sprouting is accounted for by the coolness of the temperatures prevailing. The abnormally wet season in Otago-Southland had a most detrimental effect on cereal crops generally. These crops had made good growth and promised to yield well, but in most districts it was found impossible to harvest the crops. In one district (the Taieri), which is the main wheatgrowing area of Otago, not more than 10 per cent. of the wheat was harvested in anything like decent condition.

As regards yields, that portion of the wheat crop threshed during the January-April, 1937, period, and amounting to 5,295,325 bushels, gave an average per-acre yield of 32·76 bushels, as against an actual yield for the 1935-36 season of 35·63 bushels. Although the average yield for the January-April period was less than the actual per-acre yield for the whole of the previous season, it is still greater than the per-acre yield obtained during 1934-35 by approximately 6 bushels per acre. It must be remembered, however, that the 1934-35 season was a poor one and the yields obtained then were the lowest on record for a number of years past, with the exception of 1931-32. The threshings of wheat up to the end of April accounted for 161,619 acres, of a total estimated area of 222,000 acres in wheat for threshing.

The oat crops were very variable throughout the main districts in which this crop is grown. In some places, particularly in Otago-Southland, heavy and continuous summer and autumn rains prevented a great deal of the crops being harvested. Fortunately this position did not apply in all districts, and in some the crops were good and yields were high. The estimated area sown to oats for the 1936–37 season was 295,600 acres, as against an actual area harvested