

FIELDS DIVISION.

REPORT OF A. H. COCKAYNE, DIRECTOR.

THE AGRICULTURAL YEAR.

The past agricultural year has not been nearly as satisfactory as the preceding year. The seasonable weather experienced during the spring, summer, and autumn of the 1924-25 season, followed by a mild and comparatively warm early winter, gave hopes for an extremely good season, but, unfortunately, abnormal weather set in in the late winter of 1925 and quite upset all calculations. Stock of all sorts wintered well as a result of the previous season's good growth of grass and supplementary crops, but as the spring advanced and weather conditions proved unfavourable growth of pastures was badly checked. A result of tardy growth in the pastures was reflected in diminished returns of dairy-produce in the earlier months of the dairying-season. Happily, in the late summer and autumn weather conditions were more seasonable and a good proportion of the leeway was made up.

Generally the cold and wet spring had a detrimental effect on the yields of hay, and this shortage, combined with smaller areas of root crops on account of unsatisfactory weather at sowing time, gives anything but a satisfactory outlook for winter feed for stock in many parts of the Dominion.

The area in cereals showed a decrease both in wheat and oats when compared with the 1924-25 season. In wheat the decrease is estimated at 10,000 acres, and in oats 90,000 acres. The result will be that importations of wheat will have to be made to meet Dominion requirements, but on account of the steadily diminishing requirement the quantity of oats available should be sufficient to meet requirements. The decrease in wheat acreage was entirely due to the inability of farmers, through unfavourable weather conditions, to prepare the land for sowing; had suitable weather prevailed the area would without doubt have been higher than the average for the past ten years.

The coldness of the spring and the dryness of the weather following played an important part in the control of cereal fungous diseases, with the result that all the grain was well filled, and the brightest sample for many years past was secured.

One of the most striking features of the year was the great increase in the top-dressing of grass-land with phosphatic fertilizers. The top-dressing of pastures, which has been for many years recognized as a profitable investment in both Taranaki and Auckland, is a movement which has become Dominion-wide, and it is very pleasing to record a large increase in the area being top-dressed each year.

Not only is top-dressing being undertaken on land where the work can be done with machinery, but quite an appreciable amount of hill sheep-country is being dealt with, and in this case the fertilizer is being applied by hand. This movement has been mainly brought about by the good results secured on about 2,000 acres of such country in the Manawatu, southern Hawke's Bay, Wairarapa, and one or two other districts top-dressed by hand at the instigation of this Department. A full report on this work is being published for general information in the Department's *Journal*.

SECOND-GROWTH COUNTRY.

Much experimental work has been carried out on the hill country reverting to secondary growths in the centre of the North Island. In the inland Taranaki district nearly 300 acres of secondary burns have been sown with numerous trial mixtures in co-operation with about twenty different farmers. In addition, between 300 and 400 acres of land have been top-dressed. The trials as at present laid down are giving information with regard to the mixtures most suitable to use, and the effect of manure on grass-establishment, that will be very generally applicable over the greater part of the area where deterioration has been most marked.

While the trials mentioned have given much useful information there are still many points that should be investigated so far as country reverting to secondary growths is concerned, but these investigations can only be carried out by dealing with fairly large blocks of the country in question. Proposals for these investigations have already been placed before you.

INSTRUCTORS IN AGRICULTURE.

The instructional staff was strengthened during the year by the appointment of several additional Instructors. This much-needed assistance is greatly appreciated, but more men are necessary before instruction can be as widespread as one would like. It is quite recognized that expansion must of necessity be gradual, and that sufficient staff to put instruction on an intensive basis cannot be provided with great rapidity.

Farm Economics.—In the past the almost complete lack of any knowledge of farm economics in New Zealand has made the work of rational agricultural instruction of great difficulty, but the appointment of an officer during the year to deal with this most important subject has been a matter of great pleasure to me. The officer in question has been on this work for only a short period, but I have high hopes of very valuable data being brought to light in the near future.