

Another method, known as the "Group" system, has come largely into use of late. It is conducted by local organizations, and is more elaborate than the association method in that the samples and milk-weights are taken by officers engaged and paid by the controlling organization, and the tested cows are distinctly marked by tattooing. A further development, in some groups, is that of marking the heifer calves from tested cows of proven merit, which is a good idea. The cost of conducting this system is necessarily greater, amounting to about 5s. per cow per season.

Herd-testing is doing much good, and it deserves support.

ARABLE FARMING.

As will be gathered from the appended report of the Director of the Fields Division, the grain harvest proved a good one. The yield per acre of wheat for the whole of the year's crop is not yet known, but those threshing returns available at the time of writing show a return of 38 bushels per acre. The yield for the previous year was 30.44 bushels per acre. As regards oats, returns to date show a yield averaging 43.25 bushels per acre, which is 3 bushels per acre over the total yield of the previous season. The yield from the potato crop cannot yet be stated. In 1925-26 it was 6.09 tons per acre. Potato-growers are unfortunate this year in being unable to export to Australia, consequent upon an embargo imposed by the Commonwealth authorities.

PLANT-DISEASES.

The scientific officers of the Fields Division have been actively engaged in research into some troublesome and costly diseases affecting farm crops, these including smut in wheat, oats, and barley; take-all in wheat; wheat-scab; dry-rot of swedes; and corticium disease of potatoes. Good work has been done, and the latest results in connection with dry-rot and smut especially are very satisfactory. A special attack is being organized upon potato-diseases. With all this, combined with routine work, the Biological Laboratory staff has been more than fully occupied, and the keen and enthusiastic work done is appreciated. Full details of the work of this Laboratory will be found in the divisional report.

SEED-TESTING.

The seed-testing establishment of the Fields Division handled 8,627 seed-samples during the year, this being 481 in excess of the previous year. The bulk of these were connected with seed production and export, and one would have liked to see more samples of seed intended to be sown in the Dominion submitted for testing. Certainly some merchants do their own testing, and the great bulk of the seed supplied for use in the Dominion is of good quality, but there is reason to believe that some poor-class seed still goes into use. Any farmer who wishes to do so can send a sample of seed for testing by the Seed-analyst, this service being free to farmers.

FIELDS INSTRUCTION.

The Instructors in Agriculture and Fields Instructors of the Fields Division have been kept busy in giving advice and assistance to farmers in matters connected with their pastures and crops. More officers were added to the staff, but there is still room for expansion of this service, which is undoubtedly doing good work not only in giving direct advice on the farm, but also in carrying out experimental and demonstration work on various areas throughout the Dominion. The carrying of practical advice direct to the farmer on his own farm has proved in practice to be most useful, and, while it naturally entails a great amount of travelling, the results in the form of increased production must be of concrete value to the Dominion. That the service is appreciated by the farmers themselves is shown by the extent of the demand for the Instructors' services, this being well in excess of the capacity of the existing staff to fully meet.

A further feature of the work of the Fields Division lies in the local experimental work undertaken on areas of varying size, local farmers co-operating by allowing portions of their land to be used for the purpose and assisting in carrying out the necessary work. These local experiments, by helping to elucidate local farming difficulties, or by demonstrating methods of overcoming them, constitute a useful feature of the Division's work.

PASTURE-IMPROVEMENT.

That portion of the report of the Fields Division dealing with agrostology goes fairly fully into the work which is being done in connection with pastures, especially the systematic classification of grassland types in the Dominion. As this proceeds it will involve the co-operation of both the Live-stock and the Chemistry staff, so as to enable our knowledge to be advanced and applied to practical farming operations.