

disclosed some valuable information in connection with the culture of this plant, which will have far-reaching and beneficial results bearing on this important question.

*Displays at Shows.*—There have been three of these during the year. The first was at the Agricultural and Pastoral Association's Show, at Leeston, during October. The next was a display of grain, &c., in the Colosseum, at Christchurch, during Industrial Week. This display was staged for eleven days and was much admired. A display was also made at the Canterbury Metropolitan Show, at Addington, in November last. A very busy time was experienced on all these occasions, and the demand for information was very great.

*Middle and South Otago and Southland: R. P. Connell, Instructor in Agriculture, Dunedin.*

Since taking up my duties in Otago and Southland in October last a considerable portion of my time has been devoted to the demonstration areas at Gore and Winton, the 1919 season's work for which had been planned previous to my appointment.

The Gore area is approximately 30 acres, and on it good crop results have been obtained this year. The most valuable section of the work is the swede-dry-rot investigation block, which is under the direction of the Biology Section, but turnip and oat variety trials, pasture demonstration work, origin of seed-oat investigation, and potato-culture, are all providing interesting results. The soil is making distinct response to the ameliorating practices which have been carried out during the current and previous seasons. Details of some of the crop-investigation results have already been submitted, but in most cases the harvesting has not been completed, and results are not yet available. Mr. R. L. Beaton, who is farm overseer, carries out his work very efficiently.

At Winton the major portion of the area has been under an oat crop, but there is also a swede-dry-rot investigation block similar to that at Gore. Extensive drainage has been done during 1919, and the beneficial effects of this work have been obvious. Indeed, on portions where good crops were grown it is doubtful whether, in view of the unfavourable season, a crop would have been harvested at all but for the improvement in the conditions due to the drainage. Mr. W. Campbell, the farm overseer, satisfactorily carries out his duties.

I have spent a considerable amount of time attending to inquiries from farmers. It is a significant aspect of this work that the bulk of the inquiries refer either to pastures or to methods of soil-management. These are features of farm practice in which there is much scope for improvement, and the fact that inquiries are frequently received in this connection shows that the farming community itself is not so satisfied with the methods now in general use as to be apathetic to other methods which may be deemed worthy of recommendation. Another pleasing feature of the work among the farmers is that the number of inquiries received in a given period is gradually increasing. As opportunity offers information is being gathered about the results of any special farm practice, and also about the details of the present farm practice, all of which knowledge is of special value in the work of planning the experimental work of the future. Matters which receive particular attention in this respect are irrigation in Central Otago, liming and the use of artificial fertilizers, and the establishment of pastures.

The boys' farm-competitions fostered by the Otago Expansion League were well advanced for last season, when I took up duties in the province. For the coming season I intend to work in conjunction with the League, with a view to extending the competitions and making them as instructive as possible.

To a limited extent I have been able to accompany Dr. L. Cockayne on his investigation of tussock-grassland problems, and this has given me the opportunity to become acquainted with the main features of his work and the lines on which he is proceeding.

Among the miscellaneous duties that have at times called for attention are the collection of fertilizer samples, and samples of soils for the determination of the lime-requirement, also reporting on crops.

Mr. W. Alexander, Fields Instructor, stationed at Invercargill, has very satisfactorily carried out the duties allotted to him.

*West Coast of South Island: C. S. Dalgliesh, Fields Instructor, Hokitika.*

Climatic conditions in this district from April to the end of December, 1919, were decidedly against farming operations and the carrying-out of work in progress on experimental areas, owing to the excessively wet weather, there being a rainfall of 77 in. in that period. Since then the conditions have been excellent—fine weather with occasional bursts of rain.

Another feature which militated against getting satisfactory work done on experimental areas was the scarcity of suitable labour; in fact, labour sufficiently skilled to do the work required cannot be procured on the Coast, and one has to make the best of whatever labour is available.

Cereal crops did well, and made a rapid growth during December. Turnip crops are at present looking healthy, although the braids were extremely poor in some districts, and resowing had to be resorted to in many instances.

During the year a number of farms were visited for the purpose of giving advice in the growing of suitable crops, laying down of pastures, and manurial treatment. Soil-samples for lime-requirement were taken and forwarded to the Chemist for analysis, the results being communicated to the farmers. All samples forwarded show that heavy dressings of lime are required.

In company with Mr. A. Macpherson, Fields Instructor, of Christchurch, a visit of inspection was paid to the Grey Valley district last August, for the purpose of selecting an area for an experimental farm. An area of 150 acres was selected at Waimaunga.

*Experimental Areas.*—Hokitika: Of this area 6 acres were in turnips and 7 acres in lucerne. The turnips, although sown late (February, 1919), made very good growth. The area has since been sown down in grass, and is carrying good feed at present. The lucerne has done poorly, and 4 acres of same has been resown with grass.

Moana: This area has been leased for grazing purposes during the year. Grass mixtures sown in February, 1919, have made favourable progress.

Rotomanu: This area was ploughed in the spring, and sown in swede manurial and variety tests at the end of December, weather conditions delaying the sowing until this date. Three plots of