

## WOOL

Progeny testing was continued in a Merino stud with 20 rams under test, and a Romney stud using 8 rams. The wool survey was continued in three properties entailing 4,500 sheep. The Wool Metrology Laboratory made wool surveys on 41 flocks, and work was in progress entering individual ewe data on punch cards for further analysis.

## CANTERBURY COLLEGE INDUSTRIAL DEVELOPMENT DEPARTMENT

Director: Mr. T. R. POLLARD

During the year, in co-operation with the Canterbury University College and representatives of the Christchurch manufacturers, a new department in the Canterbury College was formed; it is known as the Canterbury College Industrial Development Department, and it services industry and provides workshop facilities for the college. C.C.I.D.D. has functions similar to those of the Auckland Industrial Development Laboratories, but administratively it is part of the Canterbury College, and is financed by a vote from the Department of Scientific and Industrial Research to the college. The Defence Development Section of the Department of Scientific and Industrial Research ceased to exist from 1st October, 1948, and the well-trained staff were absorbed in the new organization.

During the six months of operation the amount of work performed to assist industry in the South Island increased markedly, and at the end of the period there was more work for industry than the existing staff could undertake. In this period, £420 was recovered from industry, £720 from Government Departments, and £3,909 from the University, and financially this can be regarded as satisfactory for the initial six months period.

## MASSEY AGRICULTURAL COLLEGE

## MANURING TRIALS UNDER ROTATIONAL GRAZING

Mr. A. W. HUDSON and Mr. C. V. FEE

The annual applications of lime and fertilizers were made, but lime effects were less obvious than in former years. Fluctuations in seasonal effects is a characteristic of lime. An investigation of the fate of the phosphatic fertilizers applied to the area was continued. This involved a study of the forms of soil phosphorus occurring at successive depths in each treatment area, and for comparative purposes a similar study was made of low-fertility area on the college farm. Besides considerable information on the trends of phosphate fixation in this particular soil type, certain of the findings appeared to have an important bearing on the problem of phosphate fixation in general. The investigations also enabled a critical examination to be made of certain of the methods that had been proposed by overseas workers for fractionation of the soil phosphorus.

## SHEEP HUSBANDRY RESEARCH

Mr. E. A. CLARKE

The trial of pedigree perennial rye-grass as compared with short-rotation rye-grass was concluded last autumn. The inclusion of short-rotation rye-grass in a seed mixture sown in the autumn gave an appreciable and worth-while increase in carrying-capacity in the following late winter and early spring. Under close grazing with sheep, either under a system of rotational grazing or set stocking, the short-rotation rye-grass failed to persist adequately in the pastures in the following winter and spring, but was replaced by perennial rye-grass. The resultant pastures in terms of carrying-capacity were equal to those originally sown with perennial rye-grass only. As compared with perennial rye-grass pastures, those sown with short-rotation rye-grass in the mixture showed no advantages or disadvantages in so far as thrift and production per sheep was concerned.