## IRRIGATION

In collaboration with the Public Works Department, special officers of the Fields Division are furthering the work of irrigation in Central Otago and Canterbury. During the war both Departments were engaged on work of a more urgent nature, but now that times are becoming more normal, attention is being centred on this important feature of farming in those districts of low rainfall.

Apart from the older schemes of Central Otago, more recent schemes are as follows:—

South Canterbury—

(a) The Redcliff Scheme, of 5,134 acres, which serves 18 properties and was completed in 1936. The source of water is the Waitaki River.

(b) The Levels Scheme, of 13,000 acres (approximately), serving 98 farms and completed in 1937. Water for this scheme comes from the Opihi River.

Mid-Canterbury-

(a) The Winchmore Scheme, of approximately 64,000 acres, serving some 160 properties and completed in 1944.

(b) The Mayfield-Hinds Scheme, of approximately 108,000 acres, to serve

270 farms and not yet completed.

Other contemplated schemes are Barhill, Tinwald, and the Rakaia-Dorie Schemes. Except for the Mayfield-Hinds Scheme, which it is understood will have a separate intake, the Mid-Canterbury schemes will be supplied by a main race from the Rangitata River which runs across the Ashburton County to the Rakaia River above Barhill. This race ends in a hydro-electric station. The source of supply for the Mayfield-Hinds Scheme is also the Rangitata River.

The Fields Division provides sound practical advice to those farmers who desire to use irrigation in the furtherance of efficient farming and production. It was recognized also that, since the State was spending large sums of money on these schemes, it was necessary to develop the potentiality as quickly as possible, and an endeavour was made in this direction, but always along the lines of sound advice and in consideration of the farmers' interests and in the interest of the land itself.

At the outset three officers of the Division were placed in each major Public Works Department construction camp so that they would become familiar with the schemes and the layout, gain some experience in levelling, and become known to the farmers and assist generally in the furtherance of the scheme. Unfortunately, the war interfered with the general plan, and with enlistment of officers and other activities occupying the Division it was necessary to curtail work in connection with irrigation development.

During the year under review there has been renewed activity on the part of the Fields Division. There are now six officers on irrigation work, and these men are in constant touch with Public Works Department irrigation officers and with farmers on the various schemes. One officer was sent to the United States to study irrigation as applied to farming in that country, and has returned; his experience should be of great value in the efficient development of irrigation in Canterbury. The other officers are gaining experience with the development of the schemes.

Plans have been submitted covering the establishment of a research area, mixed farming demonstration area, and dairying experimental area. It is hoped that this

work will be commenced during the coming year.

## FLOCK HOUSE FARM OF INSTRUCTION

The centre of training for lads desirous of receiving sound practical training in farming operations has been operated on more or less routine lines during the war, with 35 boys being trained each year. Now the war is over and as plant and farm materials become more freely available, a plan of extensive development will be embarked on with a view to stepping up the number of trainees that can be handled. It is also anticipated that a wider field of activities will be covered and more attention paid to individual training. The property will also be utilized to a much greater degree for experimental and demonstration work.