

was held over pending a thorough investigation of similar efforts in Canada, United States, and Great Britain.

The following indicates, in summary form, what has been accomplished for the promotion of the various researches :—

DAIRY RESEARCH.

A Dairy Research Institute has been established, financed by contributions from the Dairy Control Board, with Government subsidy. The Institute has been located alongside Massey College, and linked up with the researches of the field laboratories at Hamilton and Hawera, to which laboratories grants have been made from the research funds for specific research work more suitably decentralized.

The Institute is provided with well-equipped chemical and bacteriological laboratories, and an experimental factory, capable of both butter and cheese manufacture, has been made available to maintain the contact of the laboratories with actual factory problems.

The Institute is managed by a representative committee, which has appointed an expert staff capable of dealing with the most difficult problems that may arise. Although, owing to the necessity of training the staff overseas, the laboratory has been in operation only a few months, its influence already is being felt in lifting up the standard of technical discussions in connection with dairy manufacture in the Dominion, while several problems already have been dealt with.

NOXIOUS WEEDS RESEARCH.

At Cawthron Institute, Nelson, an up-to-date Biological Laboratory and insectaries have been constructed and fully equipped, providing such facilities for this work as are not excelled in the Southern Hemisphere. Investigations are being concentrated upon ragwort, gorse, pipiriri, blackberry, and bracken-fern, and, in the case of the first-named, an insect parasite has been thoroughly tested, which, when liberated, will bid fair to control effectively the spread of ragwort. Its liberation is anticipated to take place during the present summer.

Promising results also are being secured in the case of gorse-controlling insects, but in the cases of insects attacking other weeds much yet remains to be done in order to secure species which do not extend their range of attack beyond the particular plants with which they are intended to deal. The public may rest assured, however, that the experiments are under the best possible guidance, and liberations will be made only after the satisfactory completion of exceedingly rigorous tests and where the economic advantages are definitely proved.

The Empire Marketing Board has interested itself in this research, and is contributing to its cost at the rate of £2,000 annually. In addition, the Board provided a grant of some £1,300 for capital expenses towards the £2,000 required.

FOREST ENTOMOLOGY.

The increasing risk of insect infestation of our indigenous timbers, and the dangers to which the large areas of young exotic plantings are exposed, have led the Forestry Department and Research Council to realize that a minimum measure of protection against insect pests is absolutely necessary. A scheme of co-operative endeavour with sawmilling and afforestation interests has been evolved, and arrangements are fairly well forward. It is suggested that the work be directed from a Forest Entomological Research Station at the Cawthron Institute, since at this Institute there already has been developed considerable entomological investigation in other directions.

WHEAT RESEARCH.

Wheat-growers, flour-millers, and bakers have co-operated to provide funds for the pursuit of investigations into problems affecting wheat, flour, and bread. In consequence, a Wheat Research Institute has been established and a laboratory provided in association with Canterbury College, Christchurch. Here, chemical and biological tests will be made, the results of which will be used for guidance in the growing of wheat, the manufacture of flour, and in the baking of bread. The object in view is to provide the consumers with a first-class highly-nutritive bread from wheat grown and milled locally, and to make the Dominion self-sufficing so far as its wheat supplies are concerned.

Wheat breeding and selection, manurial and variety trials, experimental milling and baking tests, will all form part of the activities of the Institute, with which Canterbury Agricultural College and the Department of Agriculture are actively co-operating. The methods and results of similar work by the British Flour-millers' Research Association at St. Albans have, by arrangement, been made available to the Institute.

Up to the present, all the preliminary work has been carried out, and, now that the staff and equipment are to hand, the work of the Institute should be in full operation in all its phases early in 1929.

The most pleasing feature of the work has been the whole-hearted co-operation of millers, bakers, growers, and agricultural officers, and, as with other researches, the work and discussions raise the whole standard of accuracy of thought in connection with wheat matters, enabling issues to be fairly faced and frankly discussed on a basis of facts.

MINERAL CONTENT OF PASTURES.

The great reliance of the Dominion upon its pastures, and the future prospects of considerable results to be achieved from careful attention to them, has warranted the closest investigation of those factors which endow pastures with their nutritive and stock-raising capacity. The presence of areas supporting luxuriant pastures of obvious low nutritive value, where stock actually become emaciated