

Variegated thistle in parts of the North Island and sweet briar in parts of the South Island have been spreading, and special attention is to be given to their control. The apathy of certain landholders has necessitated considerable attention to other important weeds such as blackberry, gorse, and Californian thistle. To date fifteen counties have assumed control of the administration of the Noxious Weeds Act within their areas.

RUAKURA STATE FARM AND FARM TRAINING COLLEGE.

At Ruakura State Farm the winter was fairly mild and rain not excessive, but the spring was very late, and when grass-growth ultimately commenced it was exceptionally rapid. It was a difficult season in which to harvest surplus growth on pastures, but 86 acres of hay of moderate quality was stacked and an area of 50 acres of grass growth was ensiled. As has been the case in recent years, no annual sale of pedigree stock was held at Ruakura, but surplus stock was sold at the Combined Breeders' sale at Hamilton in September, when thirty-four yearling bulls averaged £15 17s. 6d., and when the demand for Shorthorns and Ayrshires was keen and that for Jerseys was relatively poor. There was a much keener market than for some time past for Ruakura Berkshires; Tamworths sold fairly well, but there was but a poor demand for Large Whites. On the whole, Ruakura Farm of Instruction has had a successful year.

The attendance at the Ruakura Farm Training College has been somewhat disappointing in respect to numbers, but a good type of student has been enrolled. The possibility that a course shorter than the present one of eighteen months would prove more popular is being given consideration.

At Ruakura, and at six other smaller areas which are to varying extents under the control of the Fields Division, valuable experimental and demonstrational work is being carried on. Such areas are of definite value for investigational work which is too difficult or too intricate to be carried out in co-operation with farmers in the manner in which it proves possible to organize a considerable amount of valuable investigational field-work.

TE KAUWHATA HORTICULTURAL STATION.

At the Te Kauwhata Horticultural Station, in the lower Waikato, the usual farming-operations were carried out. The grape crop suffered from the severe February storm. It is estimated that the wine produced in the year will not exceed 12,000 gallons, which is about 2,500 gallons less than that was produced in the previous year. During the year 12,606 gallons of wine were sold. A considerable demand for wines, principally table varieties, from all parts of the Dominion has been met. The receipts exceeded expenditure by about £1,700.

THE PLANT RESEARCH STATION.

As in previous years, the Plant Research Station has operated in substantial co-operation with the Department of Scientific and Industrial Research. At Palmerston North and at Marton extensive work on pastures, much of which was previously in progress, has been continued. Strain-testing of grass and clover species has been a major feature of the agrostological work, while by plant-breeding towards a "pedigree" standard, which has been continued, it is expected to raise the standard of ordinary certified seed. This work has involved close and valuable co-operation with the Fields Division. In an investigation relative to "feed" flavours in dairy-produce different phases of the question have been receiving the attention of dairy companies, farmers, the Dairy Division, the Dairy Research Institute, the Fields Division, as well as the Plant Research Station, and already information which promises to yield guidance of value is in sight. The Agrostology Section has initiated a pasture-survey in Hawke's Bay as part of the land-utilization survey of Hawke's Bay, which recently has been commenced. Arrangements between the Agrostology Section and the New Zealand Golf Council provide for the continuation of research and advisory work relative to green-keeping. In collaboration with the Fields Division an extensive series of trials regarding pasture-seed mixtures is in progress. Many arable crops, including wheat, oats, peas, potatoes, lucerne, rape, tomatoes, soya beans, onions, and maize, have been the subject of investigation at the Plant Research Station, Palmerston North, at the Pure Seed Station, Lincoln, and, in collaboration with the Fields Division, at various other points throughout the Dominion. The fungi and bacteria that have a bearing on farm-products have been the subject of considerable research. Previous work on dry rot of swedes, which has been continued, has given particular attention to disease-resistance of strains or varieties. Considerable attention has been given to club-root control, but so far no strain which satisfactorily resists attack on badly-infested ground has been found. Brown-heart of swedes, turnip mosaic, rusts and smuts of cereals, virus diseases of potatoes, internal brown-fleck