

*Sheep.*—Facial eczema was extremely bad on the farm at the commencement of the year and a heavy mortality occurred amongst the flocks. Many of the breeding-ewes, although apparently not badly affected during the height of the epidemic, gradually declined afterwards. Quite a large number died prior to lambing, a number a week or so after lambing, quite a number when their lambs were about two months old, and the balance, including those which did not prove in lamb, gradually wasted away. No animals that were badly affected have recovered sufficiently to be suitable for any purpose.

*Southdown Flock:* No rams were available for sale during the year. The year commenced with the following sheep on hand: 139 breeding-ewes, 3 stud rams, 47 flock rams, 53 ram lambs, 47 ewe lambs: total, 289.

One of the farm-bred stud lambs died from facial eczema during the year. A new stud ram, bred by J. H. U. Slack, was purchased. The year closed with the following sheep on hand: 104 breeding-ewes, 3 stud rams, 52 flock rams, 20 ram lambs, 36 ewe lambs: total, 215.

*Crossbred Flock:* During April, May, and June there was ample feed on the farm, but during July, August, and September, owing to the backward spring, grass was not too plentiful. Owing to the prevalence of facial eczema at mating-time the lambing percentage from all classes of breeding-ewes was extremely low. Feed-shortage and cold weather conditions in early spring retarded the development of the lambs, and the first draft was much later than usual in being sold. Average weights were also below the usual standard. Lambs sold for export numbered 1,152, realizing £1,160 14s. 7d., at the average price of approximately £1 0s. 2d. Fifty-one lambs were transferred from Mamaku. Two hundred and seventy-seven culled ewes were sold, realizing £120 5s. 1d. Breeding-ewes were not quite so dear as they were a year ago; 530 were purchased at an average price of 19s. 1-5d.

*Beef Cattle.*—The Polled Angus cattle were handled on similar lines to last year. The weighing of the selected steers was carried on regularly until the weighbridge was dismantled to arrange for the construction of new yards. Feed-shortage during the winter and spring prevented all animals from increasing in weight as was anticipated. Two animals were entered in the national chilled-beef competition at Morrinsville last February. Fifth place was awarded at the show, but neither of the animals was placed on the hooks at the killing-works. Twelve young steers, ten heifers, twenty-four cows, and one bull were transferred to Mamaku Farm at a transfer price of £4 2s. 6d. per head for the steers, £3 10s. per head for the heifers, £5 15s. per head for the cows, and twenty guineas for the bull. Four fat cows and sixteen store cows were sold. Altogether seventy-four animals were sold and transferred, realizing £405 17s. 8d. Thirty fairly well bred heifers and a pedigree bull were purchased from Flock House at a cost of £277 10s. One heifer accidentally injured herself and had to be destroyed. All heifers have been mated and are due to calve next August.

*Annual Sale.*—No annual sale was held on the farm. Three two-year-old bulls (one Jersey and two Ayrshires) were sold at the combined breeders' sale at Claudelands during September last. As all the yearling bulls were required for experimental work, there was nothing further to offer.

*Pigs.*—The experimental work as outlined in last year's report has been continued and considerably extended. A very large programme of experimental feeding to produce the correct type of export baconer carcass was undertaken, and the results have been remarkably good. As formerly, the animals as they reached 200 lb. live-weight were slaughtered at the works of Messrs. J. C. Hutton (N.Z.), Ltd., at Frankton Junction. The firm named assisted us in every way to secure the necessary details required from each carcass.

*Poultry Section.*—An experiment to demonstrate the value of curd feeding for egg-production was carried out in this section. As far as the work has gone the results are most encouraging. The trial will be repeated during the coming year. Quite a lively interest has been taken by poultry-keepers in the work. During the winter a well attended demonstration of the proper methods of handling and feeding poultry was given by Mr. E. C. Jarrett, Poultry Instructor, Auckland.

*Electric Power.*—To meet the ever-increasing demand for electric power it was found necessary to renew all the power-lines feeding all sections on the farm. For certain reasons the Public Works Department could not continue to supply power any longer from their substation at Claudelands, so arrangements were made with the Central Waikato Electric-power Board to erect a high-voltage line from one of their mains to a central position on the farm and supply current at bulk rates. The service has been wonderfully improved since the change over.

*Experimental Work.*—The experimental activities of the farm have been greatly extended during the past year. At the end of the year the administration of the farm passed from the Fields Division to the Division of Animal Research, and the institution is now known as the Animal Research Station, Ruakura. A commencement was made in the erection of new offices and laboratories, and these should be completed about June, 1939. New pig-pens have been completed, cattle-yards erected, and a very large amount of fencing done for facial-eczema experiments.

*Feed-flavour Investigation.*—The work done on feed-flavour in cream at Ruakura in the 1937-38 seasons was repeated in 1938-39 with similar results. Control of feed-flavour by herd-management was also carefully investigated and shown to be practicable. This was the subject of an article in the *Journal of Agriculture* for February, 1939. Reduction of feed-flavour can be brought about by adopting the following practices: (1) Save winter grass for the spring by the system of alternate spelling and lenient grazing described in the *Journal of Agriculture* for February, 1939, under the heading of "Winter Pasture-management on Dairy-farms," and ration off these mature and grassy pastures during periods of strong feed-flavour in the spring; (2) graze the most grassy pastures during the daytime; (3) mow clovery swards, and feed in a wilted condition; (4) feed good hay—molasses sprinkled on hay may help to get cows to eat hay when pasture growth is rapid; (5) when the cows have been grazing on ample pasturage in the morning, shifting them to a bare yard for at least three hours before the afternoon milking does not reduce their production but does greatly reduce feed-flavour; (6) above all, practice absolute cleanliness in the milking-shed, thoroughly cool the milk or cream, and stir it frequently.