

*Mammitis in Cows.*—The year has been a busy one in connection with mammitis, and although we are no further forward as regards curative methods of treatment, yet we feel that laboratory and routine work is slowly giving us more concrete ideas on the etiology of the disease. A number of milk-samples received at the Laboratory have been put on culture media, with a result that there appear to be three species of streptococci involved in mastitis, setting up varying degrees of inflammation. The cases which continue throughout the season appear to be directly due to *Strep. mastitidis*, while those due to *Strep. lactis* and *Strep. bovis* types are of shorter duration, and often fail to produce very great changes in the udder-tissue in the milk. In such cases the cow throws off the disease in a few days and returns to full milk. It is in such outbreaks that a vaccine has apparently given splendid results. Much more work must be carried out for one to be quite sure of this opinion. In part-confirmation, however, of this view is the small suggestive experiment where *Strep. lactis* was inoculated into the udder of a cow, and on the first subinoculation failed to produce more than a mild inflammation. Culture and experimental work combined have shown, too, that staphylococci, which at one time were supposed to be frequent causal organisms, appear very often in large numbers following streptococci infection, and although they may possibly help to prolong the condition they do not often cause acute inflammation. It was found possible by using the agglutination test on sera from diseased cows to get reliable positive or negative results by that method. This test had to be modified to some extent to suit the streptococcus. Several methods of treatment have been tried during the year. Trials of both the Hamilton Company's and Armitage's vaccine for prevention of *Strep. mastitidis* were made. Briefly, the materials were found to convey practically no immunity towards *Strep. mastitidis*.

*Sterility in Cattle.*—Work has lain mostly in continued observation of herds known to be affected with abortion, granular vaginitis, or temporary sterility; in watching the result of herds feeding on calcium phosphate; and in the use of vaccines, both live and dead. This latter has been carried out only on a very small scale, because of the necessity for suitable conditions in the herds used. An experiment is in course of construction at the Laboratory to see whether (1) it is possible to build up an absolutely free herd from the affected herd; (2) abortion-free herds have the same amount of temporary sterility as affected herds.

#### WOOL.

The wool-clip was to some extent affected by weather conditions during the latter part of the winter and throughout the spring months, but was on the whole in fair condition. Growers are paying more attention to the marketing of their wool, and complaints are less frequent. Much improvement, however, remains to be effected, and with lower prices ruling it behoves growers to pay every attention to the skirting and classing of their wool. Another point where attention is necessary is the effecting of improvement in the quality of the wool by careful selection of rams to run with the flocks. The selection of the ram from the point of view of the wool has far-reaching effects, as a badly woolled ram works ruin in any flock, whereas the right ram properly selected with regard to the purity of its wool will quickly repay for any extra price paid for it. Examination of ram-wool specimens microscopically has been carried out during the year, and reports have been supplied for the information of the owners. This work will be continued.

Prices obtained for the last clip showed a very decided drop on those of the previous season, and although some slight improvement took place the average price obtained throughout the season showed a drop of about 8d. per pound, the average recorded being slightly under 12d., as against 19-95d., in the preceding season, which constituted a record.

A further increase in the quantity of wool actually sold at local sales took place, the number of bales sold being 471,583, as against 450,587 for last season. The quantity of wool exported for the twelve months ending 31st March last was 606,660 bales, of a value of £13,284,232, as against 553,828 bales, valued at £17,379,249, for the preceding twelve months.

The services of the Department's Wool Instructor (Mr. J. G. Cook) were freely availed of throughout the year, and the very comprehensive wool exhibit at this Department's Court at the New Zealand and South Seas Exhibition held at Dunedin, which was prepared by him, created very favourable comment and provided a very valuable instructional exhibit.

#### SWINE HUSBANDRY.

The pork and bacon industry does not show very much change, although there is an increasing interest shown in the raising of pigs for the market. The number of pigs in the Dominion for 1925 showed an increase of 25,844 over the previous year. Exports continue on a small scale, but the quantity is insufficient and not advancing as it should. It is admitted that the high price of supplementary foodstuffs has had a deterrent effect on the industry, and that while dairy-produce, meat, and wool remained at a highly payable figure the pork industry was neglected, but in view of the present position this industry could be made to materially help fill the deficiency in the annual value of the exports.

The Department's Instructor in Swine Husbandry has been active during the past few years keeping the pig prominently before the eye of the farmer by means of articles, lectures, &c., and we know from report and through personal contact with the importer in Great Britain that New Zealand's output is sought after and would meet with a steady and sure demand.

The following extract from the letter of a correspondent in London is of interest in this connection: "Just a few words regarding the opinion in this country of the quality of the frozen pigs that we are shipping from New Zealand. I am glad to be able to say that comments are very favourable, not only from the Inspectors of the sanitary authorities, but also from shippers, and from bacon-curers, who are gradually becoming accustomed to handle this class of pork. I feel sure that if our dairy-folks will pay attention to the quality of the pigs which they ship to this country, topping the animals off well, and developing regular supplies on home markets, it will prove to be a very valuable method of using at least some of the by-products of our dairying in the Dominion. Another reason why it is worthy of the earnest attention of the farmers in New Zealand is the fact that, in view of the probable restriction of the use of boric in bacon, this will seriously affect the green ham and bacon trade as between the United States and this country. Now is the time for our farmers to get busy with their frozen-pig-export trade and get ahead of the other fellow."