

In addition, the Department was able to hand to the new Board a considerable number of propositions which had been investigated and brought to a stage facilitating rapid decisions, and also details of properties offered but which required further investigation prior to acceptance. The Board has, in fact, since acted upon the recommendations made by this Department in a number of cases.

ANIMAL DISEASES.

Apart from the usual troubles associated with fairly intensive stock management, the greater part of the Dominion has been free from serious outbreaks. Anthrax made itself evident on one dairy farm in the Northern Wairoa district, eleven head of cattle dying before the outbreak was controlled. The source of infection could not be definitely determined, but is believed to have been unsterilized animal manure introduced many years ago.

Close attention has again been given to the prevalent diseases of dairy cows, particularly in regard to sterility, mammitis, and the condition termed grass staggers. Mr. Blake, at Hamilton, has followed up the line of sterility investigation discussed in last year's report, and has examined some 500 samples of seminal fluids for abnormalities. The percentage of bulls classified as poor or lower on such examination indicates the importance of this line of investigation, and the necessity for following it up thoroughly. Mr. Webster, in Taranaki, is co-operating in this, and is making a close study of the sterility problem in all its aspects. The co-ordination of the work being done in the Waikato with laboratory research at Wallaceville into the effect of diet on sterility of the male should lead to a fuller understanding of this aspect of dairy herd disease. A new method of treatment for grass staggers is being tried this season, but it is too early yet to speak of results. Research at the Veterinary Laboratory led up to this.

The grouping system of milking dairy cows, commenced last year, for the control of mammitis in herds has been continued and has given promising results. The scope of this work experimentally is controlled by the staff available, as the arrangement of cows in order established by preliminary microscopic examination of milk and the subsequent examination necessary entails extensive concentration on detail. The reports to hand and covering fifty herds over two seasons show that distinctly beneficial results have been obtained, and the scheme can be definitely advised under ordinary conditions.

Good results are being obtained from the methods adopted for controlling lymphadenitis in sheep on sheep stations, the percentage of affected animals being already largely reduced. Mr. Dayus, District Superintendent for the South Island, and Mr. Hopkirk, Officer in Charge of the Veterinary Laboratory, have been prominently associated with the satisfactory progress of this work.

With regard to pulpy kidney in lambs, Mr. D. A. Gill has demonstrated that the immediate cause of death is the absorption of a bacterial toxin from the small intestine. Considerable field work has been carried out to test a vaccine and antitoxin as means of preventing the disease. Their trials were mitigated against owing to the limited evidence of the disease in the experimental flocks. There are definite indications, however, that the anti-toxin is beneficial, and its use on stud lambs may be possible and advantageous.

SWINE FEVER.

Early in May of this year an outbreak of swine fever occurred in the Johnsonville and Lower Hutt districts. Steps were immediately taken to confine and control the outbreak. All farms on being confirmed as infected were declared "infected places," and an area comprising the whole of the Hutt and Makara Counties, including all city and town areas therein, was gazetted an affected area and the movement of pigs outward prohibited, while movement within the area was controlled.

All pigs on affected farms were destroyed and buried, and all buildings, &c., used in connection with the piggeries were demolished and destroyed by burning, compensation being paid on stock and plant according to valuation. It is satisfactory to note that no outbreaks have occurred outside the gazetted area, and no further outbreaks have occurred within the zone since the beginning of July, when the last herd was dealt with. Outbreaks occurred on thirteen farms in all, and 1,920 pigs, most of these being contacts, were destroyed. All the buildings in which the pigs were housed were demolished and burned.

Close and prolonged inquiry was made with a view of determining the means by which infection was introduced, but nothing definite came to light. It is significant, however, that on all the affected farms the pigs were fed on garbage collected in the City of Wellington.

The effective manner in which this outbreak was stamped out reflects great credit upon the Director, the veterinary officers concerned, the Wallaceville Laboratory staff, and the Stock Inspectors who were associated with them.