

from the womb), accompanied by a mucoid discharge, was noted, special attention has been given to this and direct experimental treatment carried out. This work is still in progress, and in addition every effort is being made to increase our knowledge of the cause or causes of failure to hold to the bull, and the methods for overcoming it.

Mammitis is reported as having been less prevalent during the year, but plenty of cases still occur and much loss is caused. In order to combat mammitis there is no doubt that careful management of the herd and constant care in watching for and detecting cases in their early stage are necessary. The udder of the cow is a most delicately constructed organ, highly susceptible to any influences which will cause irritation or disturbance of its normal functions, and this is especially the case when the animal is in full milk. The very general use of milking-machines accentuates the necessity for the exercise of the greatest care. Owing to the conditions existing here milking-machines have become a practical necessity, and they are undoubtedly a valuable adjunct to the dairy farm, but if carelessly handled, or if kept in an uncleanly condition, they may do much harm, and the necessity for the exercise of every care in regard to them cannot be too strongly emphasized. With hand milking the presence of any inflammatory condition of the udder can be quickly noted while the trouble is in its early stages, but with the machine it may easily be overlooked until it has become severe, by which time contagion, if it be present, may have spread to other cows in the herd. Again, driving a machine at too high pressure is calculated to produce udder trouble, as also is omission to remove the machine-cups immediately the udder has been milked out. Dirt is also bad, whether in the machine parts or in the shed or its immediate surroundings. Apart from trouble arising from this cause, however, contagious mammitis not infrequently occurs among hand-milked cows, and it needs to be consistently guarded against.

The departmental field officers are always willing to advise dairy-farmers both as to preventive and remedial treatment, and their services are largely called upon.

At the Wallaceville Laboratory steady research work is going on, and some interesting experiments have been carried out, these including the use in herds of a vaccine (known as an autogenous vaccine) prepared from the milk of a cow in the herd suffering from contagious mammitis. A range of results sufficiently wide to enable any reasonably definite conclusion to be arrived at has not yet been reached, but the work is going on, and it may open up a line of effort towards a method involving less time and trouble in application.

Reports have been received from Stock Inspectors throughout the Dominion regarding the results of the use of proprietary preventive vaccines for mammitis. These embody varying opinions from farmers on whose herds the vaccines have been tried; but the balance of opinion is against their efficacy.

Sheep.

Serious contagious disease in sheep continues to be non-existent. Special attention has been drawn to the condition known as lympho-adenitis, which causes an inflammatory condition accompanied by pus-formation in some of the body-glands. This, however, is not very prevalent in the Dominion. In the case of some other countries the British Government authorities have had to impose special requirements in the case of imported mutton carcasses. Every attention is being given here to detect and prevent the export of affected carcasses, and in addition research into the methods of infection and the means of prevention is being undertaken.

Further systematic investigation into the condition known as renal congestion in lambs was undertaken in Otago last spring, and a considerable volume of information was obtained. This will be continued when the next lambing season comes round. An informative article describing the work done last season was written by Mr. D. A. Gill, M.R.C.V.S., and published in the Department's *Journal* of April of this year. The assistance given in connection with this investigation by the Medical School authorities at Otago University, in providing facilities for the examination of specimens, &c., was much appreciated.

A troublesome mortality among sheep, principally ewes, in a portion of Hawke's Bay has been the subject of a close and painstaking investigation by Mr. C. S. M. Hopkirk, B.V.Sc., officer in charge of the Wallaceville Laboratory. This bears a close resemblance to the braxy-like disease which was prevalent in Otago several years ago, though it occurs on pastures mostly of high carrying-capacity and is not confined mostly to turnip-paddocks as was the case in the South. There can be but little doubt that the reprehensible practice of leaving the carcasses of dead animals to decay on the surface of the ground over a long period of years is primarily responsible for the trouble, and it is significant that it is principally confined to the area subject to periodic droughts with resultant mortality. Fluke infestation is present in the swamps and