

INCIDENCE OF CONTAGIOUS MAMMITIS.

DANGER OF CHRONIC CASES IN DAIRY HERDS.

C. S. M. HOPKIRK, B.V.Sc., Officer in Charge, Wallaceville Veterinary Laboratory.

AN excellent example of the danger of cases of chronic contagious (streptococcic) mammitis was met with recently during experiments carried out at the Wallaceville Veterinary Laboratory.

The ordinary milk-souring organism (*Streptococcus lactis*) causes an acute inflammation of the udder when injected through the teat-canal, but this passes off in a day or two, leaving the quarter none the worse. An experiment was being carried out to ascertain whether by setting up mammitis in this way, and then passing it on from one cow to another, the power of the sour-milk streptococcus to cause mammitis would be increased. An old cow "A" was inoculated with a sour-milk organism, and, as usual, developed well-marked inflammation of the quarter. Milk from this quarter was then injected up the teat into the quarter of another beast, "B"—a first calver which had always had a normal udder. Mammitis resulted, and some days later it was found that the condition in this second animal was not due to the milk-souring organism but to the usual organism causing streptococcic mammitis in cows (*Streptococcus mastitidis*).

From this the question arose whether the comparatively harmless milk-souring organism had, in passing from "A" to "B," changed its nature and developed into the markedly harmful *Strep. mastitidis* (a phenomenon which some eminent research workers have thought might occur).

The experiment was then repeated, using two first calvers with normal udders, "C" and "D." In neither of these, however, did *Strep. mastitidis* develop, but only the brief, passing inflammation due to *Strep. lactis* being brought on.

Then on looking up the past record of the cow "A" it was found that two years ago she had been infected with *Strep. mastitidis* in the same quarter as was now used. She had, apparently, overcome the infection, and the milk had since that time remained quite normal in appearance, though with the microscope a few inflammatory cells could always be found. In spite of her apparent recovery, however, she was still harbouring the *Strep. mastitidis* in her quarter, and this caused infection in "B."

It is felt that this case is worth bringing to the notice of farmers, as very many cows which have a similar history to that of "A"—namely, an attack of mammitis and apparent recovery—exist in dairy herds and are regarded as normal by the owner, who therefore takes no precautions with them. Doubtless, as shown in the experiment, they are in many cases still harbouring the organism that originally caused them to show acute mammitis, and are consequently reservoirs of infection for their herd-mates. Cows affected in this way are always liable to have a recurrence of the disease, and should be very carefully watched so that they may be isolated at the very commencement.

It is felt, also, that the presence of such a cow in a herd is often the explanation of sudden inexplicable or recurring outbreaks of the disease.