Contagious Abortion.—This disease of breeding-stock continues to be a source of loss to the farmer. The disease is prevalent in many herds in the dairying districts and is no doubt responsible for loss of production, but also seriously interferes with the breeding efficiency of the herds. The disease is probably more frequently seen in outbreaks of abortion in young heifers, where at times the incidence may be alarmingly high. Such cases have been reported during the year, even in herds which may be described as self-contained. In such cases there is no doubt that infection is prevalent in other members of the herd and on the farm, the infection being spread by cows which appear to carry their calves to full term. The true incidence of the disease on such farms can be determined by the blood test known as the agglutination test.

Field officers continue to give all assistance possible to help owners to control this insidious disease in their breeding-herds.

Temporary Sterility.—As reported by me last year, the incidence of the type of temporary sterility often described as delayed conception appears to be more prevalent after a heavy production season or a severe winter when feed is scarce. As last winter was mild, with plenty of reserves of winter feed, and was followed by a good spring, very little trouble from temporary sterility resulted. This was noted in some districts where considerable trouble was experienced under the opposite winter conditions of the previous year.

In order to assist the farmer to determine the potency of his bull in cases of delayed conception in the herd, a bull-testing service was inaugurated by the Animal Research Division during the year, officers of this Division co-operating in the field-work. It appears that more use will be made of such a service in a less favourable breeding year. The service should prove of distinct value to many herd-owners to enable them to eliminate bulls whose potency for service is below that normally expected. In this way a useless animal may be removed early in the season, thus assisting in maintaining a more regular breeding season in the herd.

Grass Staggers in Cows (Grass Tetany).—The mild winter, followed by an early spring with plentiful grass resulted in an increase in the number of cases of this disease in the Waikato dairying districts and also in the Manawatu and some other districts. The disease does not respond uniformly to any specific line of treatment. While satisfactory results have been claimed following the use of magnesium salts given subcutaneously or intravenously in cases occurring in the South Island and in some districts in the North Island, the same uniform results are not obtained in the Waikato district. In a joint report Messrs. Mullins and Doyle, Veterinarians, Hamilton, sum up the position with regard to grass staggers as follows:—

> "Following a mild winter and with abundant feed available, as was feared the incidence of grass staggers and milk-fever proved much higher this spring than for some years. Contrary to the 1939 season, when poor conditions generally prevailed in this district (the incidence being very low), the months of July, August, and September of this year will be remembered by some dairy-farmers as climatically very favourable, but alarming from the herd mortality point of view due to the severe onslaughts of grass staggers and milk-fever.
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> "A feature of this season's troubles has been the frequent appearance of what we regard as grass staggers before calving and immediately after calving. In some cases soon after calving there was a very marked hypersensitivity, with periods of dullness, usually associated with milk-fever.
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> "With regard to treatment and prevention, many owners had adopted the usual recommendations, such as feeding hay and ensilage, magnesium sulphate in the drinking-water, in licks, or given hypodermically, with but little result. In our attempts at treating affected cases we have tried solutions of calcium and magnesium alone and in combination given intravenously and subcutaneously, and also chloral hydrate intravenously, with varying results. We feel there is no line of treatment we can enthuse about.
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> "A further notable feature this season was the tendency of so many cows to become dull and lose condition after perhaps a perfectly normal calving, taking quite a time to get back to normal. Some of these showed acetone present, others a low calcium blood level."

The treatment and prevention of the type of disease prevalent in the Waikato district in dairying herds during the spring months in such a season is very difficult. The evidence suggests that there is no very clear line of demarcation between an animal affected with a type of grass staggers and another animal affected with a type of milk-fever. The position between the two appears confused, and the typical case of each is not as clear cut as in other districts. In such circumstances, the results of treatment are not so uniformly satisfactory.

Milk-fever.—The circumstances in which this disease of dairy cows occurs are now fairly well known by herd-owners. The winter and spring conditions were almost ideal for bringing about an increase in the disease. The winter was mild and feed was always plentiful, and an early spring provided the succulent feed which is conducive to an increase in the number of cases of the disease. It has been recognized for many years that cows which winter well and calve under good feed conditions are likely to be affected with milk-fever. Almost every dairying district in New Zealand reported an increase in the number of cases last spring. In parts of Taranaki the large number of cases occurring daily on many farms gave added attention to the disease. Although many owners are conversant with the correct methods of treatment of affected animals, many cures being effected, there are others who are not experienced, and in the absence of expert assistance some losses were inevitable.