

Brucellosis breakdowns in Northland

Introduction

Four brucellosis breakdowns occurred in Northland during the 1987/88 testing season (1 September to 31 August). A dairy herd and three beef herds were affected, all located close to Whangarei city.

Description

Farm A: Infection was detected in this dairy herd by way of the bulk milk testing scheme. Four reactors with low to moderate titres were identified, a prevalence of 4% (4/97).

Farm B: This small red devon stud was surveillance tested with 37% (23/63) of animals reacting. *Brucella abortus* biotype 1 was isolated. The owners reported that nine abortions had occurred over the previous 18 months; they had not thought to have any of these investigated. This herd had not been vaccinated with strain 19 since 1974/75.

Farm C: This herd was located 3 km from Farm B. Twenty-six per cent (84/324) reactors were identified by the herd surveillance test. This was a intensively managed herd. Abortions had not been observed. As with Farm B this herd had not been vaccinated for some years.

Farm D: A small herd of 36 animals some distance from Farms B and C. Abortions occurred in the autumn and an investigation demonstrated *B. abortus* biotype 1 infection. The subsequent herd test revealed 23 reactors, a prevalence of 64%.

Cause of Breakdowns

Intensive epidemiological investigations were conducted in all cases, including detailed traceback. In no herds was there any previous history of infection, and traces did not reveal a source of infection. Movement of animals between the herds has not occurred.

However, Farms B and C were in the proximity of a moderate incidence herd that had been depopulated in May 1984, and it is possible that infection had been transferred to young stock on either farm at about that time. These herds had been surveillance tested immediately after the depopulation, but only mature breeding animals were tested. Likewise Farm D was near to another herd that had been depopulated in 1986.

An alternative hypothesis was that infection had spread to these herds via scavenging birds or dogs from another infected herd in the Whangarei area.

Control Measures

All cattle in these four herds were slaughtered and the farms quarantined for a minimum of 1 month. Two intensive surveillance zones were established at 5 and 10 km about the breakdowns. All cattle within the 5 km zones were tested prior to June 88. During the 88/89 season

this will be repeated along with all beef herds in the 5-10 km zone. The bulk milk from dairy herds will be checked monthly. Within the 10 km zone abortion surveillance was introduced. Additionally, elsewhere in Northland, as in the rest of New Zealand, surveillance has been intensified in all beef herds located near to herds which have been heavily infected at any time in the last 5 years.

Kevin Bell
Veterinary Officer, Whangarei

Terry Ryan
Veterinary Operations Manager, Ruakura