DAIRY HERD HEALTH & PRODUCTIVITY SERVICE

Mobility scoring course

We are running a Register of Mobility Scorers approved training course on Tuesday 3rd September 2019 at Langhill Farm, Midlothian, EH25 9ST from 10am-4pm (lunch provided). Please contact the DHHPS office to register.

Infectious Bovine Rhinotracheitis (IBR)

IBR is a highly contagious infectious disease affecting cattle of **all** ages. The disease is caused by Bovine Herpes Virus – 1, and typically results in inflammation of the upper airway. In recent years IBR has been implicated in some dairy herds that are not milking to expectation or that have had "milk drop" in individual cows. Abortion may also occur after infection.

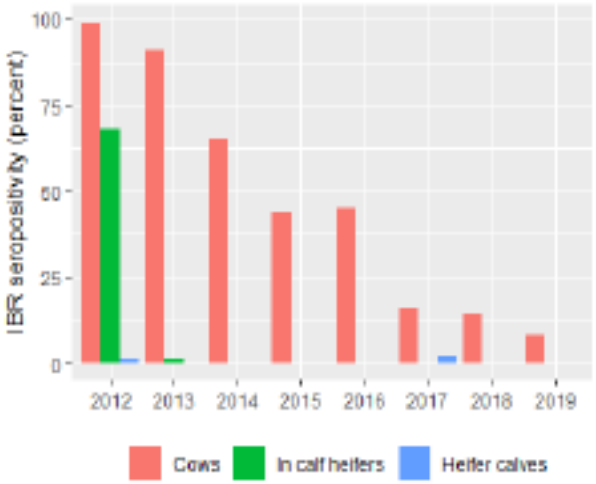
Being a herpes virus (related to the cold sore virus), infection can persist in cattle populations long-term as a result of latency. Therefore, latently infected cattle are always considered a potential source of infection within the herd.

Update on IBR Farm Case Study

For the last 7 years, the farm department at the University of Edinburgh Vet School has been following the progress of a dairy herd that had an acute IBR breakdown in spring 2012. This outbreak was strongly suspected to have occurred as a result of an older cow latently infected with IBR starting to shed virus, presumably after a period of stress.

In May 2012, a milking heifer showed clinical signs of IBR and died, with IBR confirmed by PCR testing and histopathology. Following the IBR breakdown (likely from one latently infected cow), comprehensive individual animal antibody testing was performed in June 2012. Initially, herd status was investigated by testing all cows and heifers for milk (gE) or blood (gB) IBR antibody to define herd seroprevalence. It was established that nearly all of the adult herd (99%) had seroconverted, and 68% of the pregnant heifers had also been exposed to wild type IBR virus. A robust vaccination regime (using live and inactivated IBR marker vaccines) was then put in place from June 2012 onwards for the adult herd and youngstock. The long-term plan for this farm is to try to gain IBR-free status.

The figure below shows the dramatic fall in IBR seroprevalence in the dairy herd from 2012 to 2019, once vaccination was started.



Summary

- Within 5 years of ceasing an IBR vaccination programme, clinical disease reappeared and spread widely in a closed 230 cow dairy herd
- Vaccination with a live followed by inactivated IBR marker vaccine programme has to date controlled further clinical disease
- Within 7 years of re-starting vaccination, the adult cow herd seroprevalence has fallen from 99% to 8%

It is worth noting that the seropositive cows that currently remain in the herd were 1st lactation cows or pregnant heifers during the outbreak in 2012. In 2017, 2% heifer calves tested IBR positive, but this was later confirmed to be due to maternally derived antibodies.

On the basis of the farm's own current culling policy (which has not considered individual animal IBR status), this dairy is close to achieving IBR eradication. However, good biosecurity and a continued robust vaccination plan is essential to prevent history repeating itself. Once the herd is free from IBR, the discussion on whether or not IBR vaccination should stop can begin!

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