

BVD Breakdown In A Vaccinated Herd

Despite the incidence of BVD in Scotland having significantly reduced in the past few years, some farms still suffer from breakdowns.

This case details a breakdown in a vaccinated herd that have had negative check tests (and so no evidence of infection) for several years. Antibody positive calves were detected on the annual check test in February 2017 and so screening of the calf crop was undertaken. A PI was identified and immediately isolated from all breeding stock.

Despite good biosecurity on the farm itself, while pregnant, the mother of the PI had been in a field which march fenced with a neighbour. This is the suspected route of entry of the virus onto the farm. By the time of detection, the PI had been present for a year, spreading virus within the herd. Throughout the following calving period, five more PIs were identified by tissue-tag testing. These animals were confirmed as PIs by blood sample at one month old and were destroyed. No more PIs have been detected since May 2017. Going forward, tissue tagging all calves born will maintain disease free status and ensure that infection is detected early, should it re-enter the herd.

This case highlights a few important points:

- Infection can spread despite vaccination – no vaccine can offer 100% guaranteed prevention of infection, but when carried out properly, vaccination does reduce the risk of infection and the production of PIs. Too high an infection challenge can overcome vaccine-acquired immunity;
- The benefits of tissue tagging – allows early detection of disease – PI status can be confirmed at one month old, so the source of infection can be eliminated, helping to prevent spread of infection within the herd;
- A significant risk can be posed by non-breeding or fattening herds which may have unknown BVD status;
- Good biosecurity is the cornerstone of BVD control.

Biosecurity Measures to Help to Maintain Negative BVD Status

- Vaccination
- Individual virus testing of calves/herd
- Operate a closed herd
- Buy-in only accredited BVD free animals
- Isolate and quarantine test new cattle
- Cull PIs
- Good fence maintenance and double fencing

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Don't Keep Barren Cows

In a recent article HCC production figures for the average Welsh cow, based on BCMS data, showed –

- Over a 9 year life they produced 5.5 calves.
- Were 1,009 days old when they first calved – around 33 ½ months old.
- With an average calving interval of 426 days – 14 months.

The following table shows the pattern of calving for this “average” Welsh cow, assuming she was born on 1st January 2000 and the potential calf output over the same lifetime.

Lifetime Output/Cow Born on 1st January 2000

	Av Welsh Cow	Potential
2000 born	January	January
2001		
2002	October	January
2003	December	January
2004		January
2005	February	January
2006	April	January
2007	June	January
2008	July	January
2009	SOLD	January
Number calves	6	8

The reason for the average cow producing 2 fewer calves is obvious –

- First she wastes nearly a year as a heifer calving at nearly 3 years and
- Secondly by dropping back in date of calving 2 months every year, there is one year when she doesn't produce a calf at all.

Both of these problems almost certainly are not due to the cow herself but simply on how she is managed –

- It is the owner's decision on when heifers are mated and obviously a very large number of Welsh producers opt to delay mating their heifers until they are around 2 years old, by which time they should have produced their first calf!
- The majority of calving intervals in Welsh suckler herds must be much closer to 365 days as very few calve all year round. For example with a 4 month mating period the maximum calving interval possible would be 16 months and this could only be achieved by cows calving on the first day of the calving period! What is more likely is that the majority of Welsh herds keep barren cows ie run them empty for one year. If we assume a barren cow is kept on for rebreeding the following season then the rest of her calving intervals would be only 344 days ie just under 12 months!

The message is clear, the way cows perform is largely due to how they are managed and in particular when we allow them access to the bull. Within the Welsh herds several will be achieving the target in the table above and selling an extra 2 weaned calves over the lifetime of the cow, currently worth around £1,500 per cow with only a minor increase in costs.

Action Plan

1. Manage and feed replacement heifers so they are fit to bull to calve at 2 years.
2. Don't keep barren cows however young they might be.

PS Although this article was based on Welsh data, the principle applies to all suckler herds!

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This article is from SAC's monthly publication Sheep & Beef News. If you would like more information or to subscribe please contact Val Angus on 01835 823322 or val.angus@sac.co.uk