

Working together to beat BVD...

"BVD is the most fantastic thing you will ever get rid of," says beef farmer Simon Bainbridge. "Your whole herd health status goes up in leaps and bounds. Now there's no coughing in the shed, no finding a calf down with pneumonia, no niggling health issues – and no mucosal disease. It's all down to getting rid of BVD."

Unfortunately, it's a lesson that Mr Bainbridge, who farms organic beef on the family's 660 hectare farm in Northumberland, has learnt the hard way. When BVD hit his suckler herd in 2005 the damage was devastating.

"We were a naïve herd and therefore at risk," says Mr Bainbridge. "Conception was badly affected with a six-week gap in calving. Then two cows inexplicably aborted in July 2005: laboratory sampling of the fetuses and dams proved inconclusive, but BVD virus was the main suspect."

Amongst the 48 calves that were born between September and December 2005, six were lost to pneumonia: again the severity of the outbreak was thought to be due to immunosuppression caused by active BVD infection.

"The next year, our first case of mucosal disease in yearling calves was followed by 13 others: in total, 33 calves were affected with 18 either dying or being culled. A blood test of the whole cohort group for BVD antigens revealed that we had 12 persistently infected (PI) calves, all of which had to be culled."

Epidemiological studies on the farm revealed the source of infection to be just one calf – "calf 365", a spring-born PI calf from a non-PI dam who must have become transiently infected in the early stages of pregnancy, possibly by contact with a PI from a nearby herd.

Bainbridge Farm's BVD protection

- Bovidec vaccine
- Regular discussions with vet
- Annual blood screening of youngstock
- Members of the SAC Premium Health Scheme
- Breed own heifer replacements
- Bought-in bulls accredited and free of BVD
- Isolate bulls on arrival – allow time before use for health screening
- Double fenced boundaries
- Keep pregnant cows away from any at risk boundaries

Mr Bainbridge estimates that the cost of his BVD attack, for veterinary costs and the loss of animals during 2006 and 2007, would, at today's prices, be around £50,000-60,000.

Having weathered the storm he has been more determined

than ever to protect his herd from avoidable health risks.

"We now have a very healthy, fertile herd that is hitting all its targets," says Mr Bainbridge. "We're getting 90% of heifers in calf within six weeks and 95% of cows within nine weeks. So we have a tight calving pattern and a very even batch of calves, which helps when we want to wean or give treatments; 65% of the cows and heifers calve in the first three weeks and we retain our replacements out of these: figures like this would not be possible if we hadn't weeded out the PIs and had a vaccination programme in place."

Whilst education, especially understanding the role of the PI, is a major factor in the control of

BVD, the 2014 Farming Against BVD Survey of attitudes to BVD, carried out by Novartis Animal Health (now Elanco Animal Health), revealed that nearly half of farmers talked to vets – their main source of advice about BVD – only once a year.

"Around 50% of respondents were unsure as to the types of test needed to detect BVD infection in their livestock and 32% were unaware that correct vaccination against BVD can protect both the cow and unborn

calf. The survey also indicated that 20% of farmers wrongly believe PI animals will eventually become non-infective. There is still a great need for clear direction," says Caroline Dawson, technical consultant for Elanco Animal Health.

Mr Bainbridge's vet, Joe Henry of Alnorthumbria Vets, says: "Here in Northumberland we are close to Scotland and our farmers have been following their eradication progress closely. Average farm size here tends to be bigger than in the rest of England and we have many tenant farmers, so disease prevention – and its ability to protect output and therefore profit – is taken very seriously with around 98% of herds now being vaccinated against BVD.

"Our advice is to encourage farmers

to blood test a sample group of calves – five from each group at nine-months-old – to check that they are antibody negative. If they are not clear, we blood sample the whole calf

crop of that year to find and eliminate any PIs.

"We then carry on checking for PIs in the following two years' crop by tissue sample testing all the calves when they are ear-tagged at birth. Over the years we have worked hard to make sure our farmers understand the danger of the PI animal."

Doing all they can

Working closely together, Mr Bainbridge and Mr Henry do all they can to ensure that the herd remains "BVD free".

Vaccination with Bovidec, the killed, once-a-year BVD vaccine was recommended and implemented in December 2005 and remains at the heart of the herd's BVD protection.

"No farm is an island," says Mr Henry, "and despite all the biosecurity measures that we recommend, no beef unit can be totally safe – everyone should be vaccinating and vaccinating correctly. However busy you are, plan ahead and follow the guidelines exactly.

"The primary course of injections needs to be given three weeks apart – and for cows must be completed no less than seven days prior to service – then followed by one annual booster.



Joe Henry.

And also don't forget the bulls."

Both Simon Bainbridge and Joe Henry's belief that vaccination should be mandatory is endorsed by their experience of the nearby Coquet Valley BVD Eradication Programme co-ordinated by Alnorthumbria Vets

and Mr Henry's colleague Jenny Hull.

Initially funded by Lantra One North East, the scheme, which started in 2011 with almost 40 farms, and expanded to include 85 farms in total – one of the biggest contiguous areas in England – aimed to eradicate BVD from a defined, geographically isolated area centred on the Coquet Valley.

Farm borders were mapped with red lines showing where "nose to nose" contact between animals could occur and green to show safer boundaries: double fencing, roads, trees and arable land.

Farms were tested to determine their BVD status and on 24% of farms PI animals were identified and removed. All those taking part received a free herd health plan and were advised of the role of on-going screening, biosecurity and vaccination.

Strong, collaborative and open approach

"What really made our scheme different," says Jenny Hull, "was our strong collaborative approach. We held open meetings where everyone agreed to share their BVD status and so understood why working together is so vital. One of the most important topics was the PI and that you vaccinate not to protect the cow so much as to prevent the unborn calf from becoming a PI."

Funding for the scheme ended in March 2014; however, since then almost all of the farmers involved – with the benefit of improved herd health – have continued to screen annually for antibodies and vaccinate against BVD.

"Most of our European neighbours already have national eradication schemes backed by government legislation," says Jenny. "We are way behind – and yet it should be easy. It's a simple disease to eradicate because it's a simple disease to find, but it does need all farms to participate.

"We have a really good test and a really good vaccine, so there's no excuse. The benefits in terms of herd health make national eradication a top priority."

VETERINARY Practice

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Simon Bainbridge.