



A campaign to promote the control and prevention of BVD in cattle

Failing to protect against BVD

Bovine Viral Diarrhoea (BVD) is one of the most significant production diseases affecting cattle throughout Europe.

This is not only because of its direct impact on fertility but, through the suppression of immunity, it allows pneumonia and other infectious disease to take hold in a herd. Moreover, it is extremely widespread; European seroprevalence data shows the exposure levels of cattle to the disease (see panel).

Vet Jon Reader, from Synergy Farm Health, an XL Vet practice, says: "You could be forgiven for asking why, when diagnostics and vaccines have been available for some time, figures are so high.

"A European study Europe aimed to understand levels of vaccination and although it showed most vets [90 per cent] believe cattle should be vaccinated against BVD, use at farm level is highly variable ranging



Jon Reader

from 10 per cent in Belgium to 36 per cent in UK and an EU average of 25 per cent."

Naturally, vaccination levels will vary in countries where either an established or new eradication programme is running. That said, many experts agree surveillance coupled with persistently infected calf (PI) removal (in accordance with guidelines) supported by vaccination offers a belt and braces approach, particularly when

considering protecting stock.

"Why then, is there the disconnect between BVD exposure levels and vaccine use?" Mr Reader says.

A recent study at the Royal Veterinary College¹ may give some clues as to what goes wrong and where lapses occur.

The study was carried out on 71 farms, split between beef and dairy and found:

- 21 per cent of farmers did not use the correct dose of vaccine.
- A similar number administered vaccine via the incorrect route of administration.
- While all farmers gave a two-course primary course, nearly 50 per cent had the wrong amount of time between dose one and dose two.
- Critically, vaccine should be given far enough in advance before service to ensure the unborn calf is protected, yet just 24 per cent of respondents managed to do this.
- 23 per cent of farms did not know their BVD status.

Mr Reader says: "Timing of vaccine is an issue, especially for year-round calving herds as the datasheets state existing vaccines should be administered well in advance of serving.

"Often this is unrealistic as herds tend to be gathered for vaccination in spring prior to turnout. Separating out smaller groups for BVD vaccine boosters at the right time ahead of service simply does not happen.

"There is also a degree of uncertainty around six-monthly or annual boosters and which vaccines can be administered together."

The study also revealed only 28 per cent reported knowing the BVD status of bought-in animals and very few purchasers insisted stock was vaccinated prior to coming onto their own unit. Poor biosecurity, especially when it comes to buying-in stock is a very real disease risk. It is recommended producers should always know the BVD status of stock coming onto a unit, espe-

2013 european seroprevalence data

- UK: 90-95 per cent seroprevalence
- Ireland: 98 per cent
- Germany: 60 per cent
- France: 60 per cent
- Italy: 62 per cent
- Spain: 80 per cent

cially in-calf animals, and if vaccinated, this includes knowing when they were vaccinated because animals vaccinated after service, could still be carrying an infected foetus.

"It was also interesting to note the health of animals at the time of vaccination was seldom taken into account," he says. "A sick or immune-compromised animal will not be able to respond well to a vaccine. It is worrying then there seemed few incidences of illness being given as a reason not to vaccinate."

Vaccines are sensitive and should always be stored and

handled correctly. They need to be refrigerated and sometimes used within a certain period of time once opened. In the study, about 34 per cent of farmers kept such a bottle for more than a month.

"One of the biggest problem areas, especially in all-year-round calving herds, is making sure heifers receive the correct primary course of vaccine before being served for the first time," Mr Reader says.

"These animals also need to feed into the adult herd booster timing without more than the required interval. On many farms, heifers may go 18 months between a primary course and a booster, which reduces the benefits of the vaccine. It is also important to realise just because you vaccinate, BVD could still be a threat to your herd; ongoing surveillance is vital."

¹Meadows, D., *Cattle Practice* 2010 vol 18 part 3.