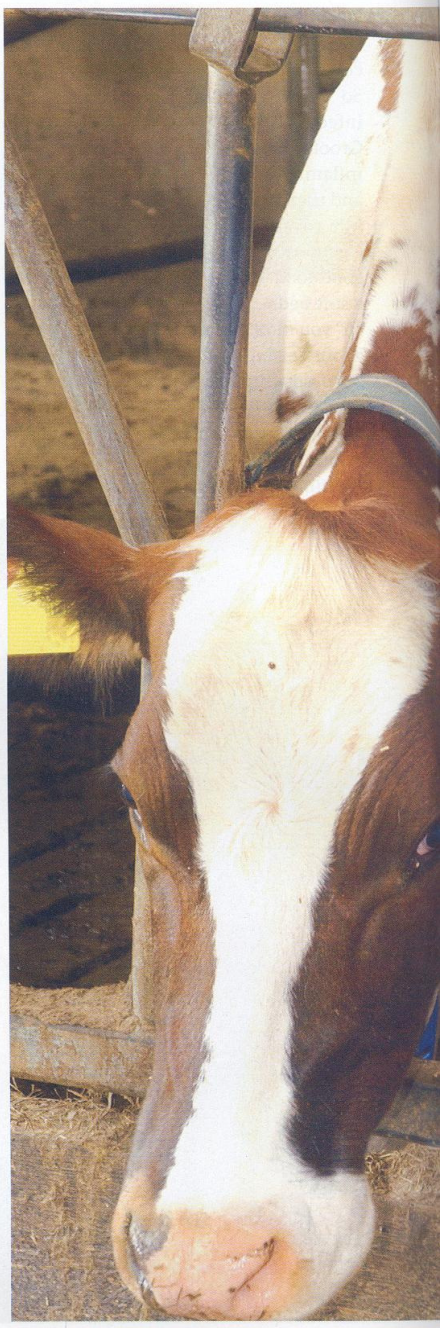
Is it time to

This insidious virus could be causing – and

With the Scandinavian countries declared BVD free, eradication in the rest of Europe is a distinct possibility, despite the higher cattle densities. So should eradication be a priority for producers and is it a realistic possibility for the UK?



Bovine Viral Diarrhoea is like an iceberg, according to Intervet's veterinary manager Alasdair King. What can sometimes be seen of the disease on the surface, such as reduced milk yield or a slight dip in fertility, is just a fraction of the problem. "It's what's underneath the surface that's of real concern," he says.

"One of the biggest effects is immuno suppression, so what many producers actually see when BVD is present are other diseases, such as respiratory disease in calves or more cases of mastitis. They don't immediately think or appreciate that BVD might be behind this.

"The name of the disease doesn't help. Many producers expect to see diarrhoea, but this is only the sixth most frequently seen symptom. So again, it can easily be eliminated from the list of possible causes.

Insidious disease

"For this reason it's an insidious disease – it's difficult to spot – because the symptoms, and many others in cows and calves, are often blamed on factors such as poor housing and nutrition."

Most shocking is that, where it's present, this 'invisible' disease is costing UK dairy herds as much as mastitis on an annual basis. And, due to BVD's immuno suppressive action, it is probably to blame for some of the cases of mastitis in the herd, which means that it's technically costing even more.

Mr King says that BVD is like a dripping tap – leave it for long enough and you get a flood.

"Herds with BVD are haemorrhaging money, but this can be difficult to see and is often ignored. If BVD was a 'visible' disease – like mastitis – producers would tackle it straight away, but in most instances they don't even know that it's there.

"So it's vital that we raise awareness of the disease – and the damage it does – and how to tackle it," adds Mr King.

The good news is that, with a correct and thorough approach, BVD, and the damage and losses associated with the disease, can be eradicated at farm level in just a few years.

"Just as with any control programme, a systematic approach is needed, starting with clarifying herd status through diagnostics. Carrier animals – 'viral factories' – must then be identified and removed.

"Monitoring is also vital, as is biosecurity to avoid re-infection. And, most importantly, vaccination plays a key role in reducing the damage caused by the disease and preventing new carrier calves being born," says Mr King.

Vaccination must form part of a programme if it's going to work and the disease is to be eradicated, but it's not a panacea.

Viral factories

Carriers, known as PIs, will shed the virus through their body secretions throughout their life and must be identified and removed from the herd. These 'viral factories' are born with the disease – it crossed the placenta during the first trimester of pregnancy and, put

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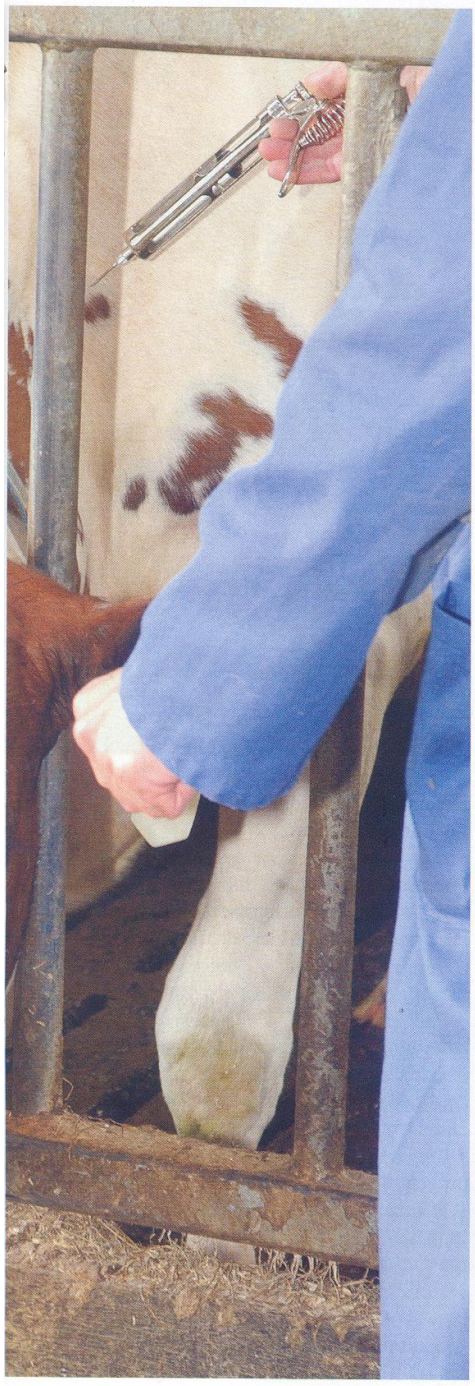
tackle BVD?

compounding – your herd's health problems



UK approach to BVD control

In the absence of a UK official BVD control programme – which the UK government won't currently fund – the RCVS' Joe Brownlie has set up a BVD control strategy group to prepare a national strategy. He has sourced funding to run pilot programmes in Norfolk and Suffolk, north-east Scotland and Somerset.

Producers are paying all test costs. So far, of the 71 herds taking part in East Anglia, more than 50% of dairy herds and 75% of beef herds appear to be BVD-free. "But this is not a cattle-dense area," points out Professor Brownlie. "Of the 30 herds taking part in Somerset, more than 70% show some incidence of BVD," he adds. "And we couldn't contemplate going ahead without vaccination because we are dealing on a herd – not regional – basis.

Another issue is that less than 30% of vaccines are used correctly, as a primary dose and secondary 'booster' dose given before breeding with more follow-up boosters."

simply, rather than killing the calf, as it often does, it is accepted by the calf's immune system. The calf's immune system recognises the virus as 'normal' and is unable to mount a response against it.

Blood test

A special blood test – called a PCR test – will identify PI animals that have the virus in their DNA.

"Removing these animals from the herd is essential before a vaccination programme can begin. Even vaccinated animals could be overwhelmed by the amount of virus being shed by PI animals," explains Mr King.

With the 'viral factories' gone vaccination, with a product such as Bovilis BVD, can begin and within three or four years, because a 'dead' vaccine is used, the herd can be BVD free.

However, that doesn't mean that vaccination can cease as there is always a risk from neighbouring herds so, unless a region or country is categorised as BVD-free, there is always a case for maintaining a vaccination regime.

"And producers need to be confident about their biosecurity – it's the final faltering point for some herds.

"Just one cow, heifer or bull with BVD is all it takes to re-introduce the disease and then you're back at square one. So biosecurity is important if you're going to protect you're herd's BVD-free status – and the investment you made to get it," says Mr King.

Long term, he says that it would be possible to eradicate the disease on a national basis. "If proper management and vaccination was taken up by the majority of UK producers we could eradicate the disease in 15 years.

"And I think there will be increasing pressure to get on and do this, and not just at farm level. I believe that there will come a point where the UK will have to be BVD free if it wants to export."

In the short term, Mr King wants producers to look beneath the surface of their own herd health status and rule out BVD as a possible cause of disease, milk loss and poor fertility on their units.

"And don't be afraid of what you might find. Knowledge is power and remember that the cost of an eradication programme will be considerably less than the cost of the disease to your herd's health, productivity and profitability."

Rachael Porter