



BULLETIN
No. 5
May 2022

The role of vaccination in the BVD programme

Advice from the all-island BVD Technical Working Group

The goal of the current programme is the eradication of BVD virus from NI, with the core element being to identify those animals persistently infected (PI) with BVD virus and remove them from the cattle population. Associated with this, adequate biosecurity measures to prevent the accidental introduction (bio-exclusion) and spread (bio-containment) of infection in herds is critical.

Increasing compliance with the programme, by culling Persistently Infected (PI) animals promptly, will hasten successful eradication of BVD, and equally shorten the overall period when provision for vaccination is required.

WHAT IS THE PURPOSE OF VACCINATION?

The main purpose of BVD vaccination is to induce a protective immunity in breeding animals to avoid a range of negative outcomes of infection on reproduction, including failure to conceive, abortion, birth defects and most importantly the creation of calves that are persistently infected with BVD virus. In the event of vaccinated cattle encountering the BVD virus, they are primed to mount an immune response to the virus and thus the risk of an infection becoming established (and persistently infecting the foetus) is reduced. The decision whether to vaccinate or not depends on the risk profile of the herd.

WHEN IS VACCINATION NECESSARY?

As the programme progresses, the prevalence of PI animals decreases, and this is followed by a decrease in the prevalence of animals with natural immunity following exposure. On the one hand this means that the likelihood of pregnant cattle being exposed to virus will decrease but on the other hand the potential negative impact of such exposure increases. The reduction in immunity may leave herds more exposed to large outbreaks should a PI animal be introduced.

The key risk factors that have been identified at herd level which increase the probability of BVD entering a herd are:

- Large herd size
- History of BVD in the herd
- Purchase of cattle
- Purchase of 'Trojan' cattle (in-calf animals carrying a PI calf)
- Increased concentration of BVD-Positive animals in the vicinity of the herd.



**Animal Health
& Welfare NI**

www.animalhealthni.com

Unit 49, Dungannon Enterprise Centre, 5 Coalisland Rd, Dungannon,
Co Tyrone, BT71 6JT
Tel: 028 79639333

Email: info@animalhealthni.com

www.animalhealthni.com

The risks from other means of spread including direct contact (eg at boundaries, shows and sales) and indirect contact (eg contaminated environments, equipment or clothing or hands of farmers, employees, or visitors) should also be considered.

Any herd which has been or is exposed to some or all of these risks in the absence of appropriate control measures has an increased probability of experiencing the spread of BVD into their herd. However, this list is not exhaustive and does not necessarily exclude BVD being diagnosed in a herd without these factors being present.

CONSULT WITH YOUR VETERINARY PRACTITIONER

Decisions on the use of BVD vaccine, including when to stop a vaccination programme, are herd-specific and should be taken by each farmer in discussion with their own veterinary practitioner. Remember that stopping a BVD vaccination programme prematurely, where biosecurity risks still exist, could be a very expensive exercise. Cost savings need to be balanced with the risk of BVD recurring. Animal health plans should be discussed with your vet.

It should be noted that the available BVD vaccines will not provide 100% protection in all circumstances, even when stored and used correctly, particularly where pregnant cattle are exposed to high levels of BVD virus.

Carry out a full BVD investigation with your private vet if there has been previous infection in your herd.

HOW TO REDUCE THE RISK OF A BVD BREAKDOWN

- Buy low risk animals from low risk BVD herds
- Quarantine animals on arrival
- Minimise contact of bought-in cattle with other animals, particularly animals in the first trimester of pregnancy
- Isolate purchased pregnant animals until calved and the calf tested with negative results
- Step up biosecurity during the breeding season - this is a key period where infections can lead to the birth of PIs
- Keep boundaries in good condition to prevent contact with neighbouring animals
- Supply cleaning and disinfection for farm personnel and visitors
- Apply cleaning and disinfection of shared equipment.

OTHER ISSUES AFFECTING VACCINATION DECISIONS

- In the event of an outbreak in a neighbouring or associated herd, consider commencing or re-commencing vaccination.
- Herds with a greater than normal throughput of people, such as demonstration farms, should consider vaccination, as visitors may carry the virus on their clothes, etc.
- High genetic merit females where progeny is of a higher value may warrant routine vaccination.

Further information is available in the BVD FAQ section of the AHWNI website: www.animalhealthni.com.



**Animal Health
& Welfare NI**

www.animalhealthni.com

Unit 49, Dungannon Enterprise Centre, 5 Coalisland Rd, Dungannon,
Co Tyrone, BT71 6JT
Tel: 028 79639333

Email: info@animalhealthni.com

www.animalhealthni.com