



VACCINATION



BVD Free
Animal Health Ireland.ie

NATIONAL BVD ERADICATION PROGRAMME

Animal Health Ireland, 2-5 The Archways, Carrick-on-Shannon, Co. Leitrim N41 WN27.
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INTRODUCTION

Prior to the BVD eradication programme BVD vaccination played a pivotal role in the control of BVD on Irish farms. The BVD Technical Working Group issued a statement on the role of vaccination in 2013, at the commencement of the programme. It has been requested by the BVD Implementation Group that further guidance from the Technical Working Group be provided to herds which had been vaccinating and were considering ceasing that practice, as the programme has made considerable progress toward eradication.

The advice from 2013 was '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'. That advice remains as pertinent today as it did in 2013, but it is worth restating the factors that need to be considered when deciding whether to stop vaccinating a herd or not.

The new Animal Health Law coming into force in early 2021 prohibits vaccine use in those countries/regions where freedom of disease is recognised, although it allows restricted use of vaccination under specific circumstances. Thanks to the significant progress made by the Irish BVD programme, formal recognition of Ireland as BVD-free at EU level according to the terms contained in the AHL will be under consideration. The BVD Implementation Group is considering the necessary changes to the programme required to align the Irish programme to the new AHL with the goal of having freedom recognised. It should be noted that the current and future use of vaccine, particularly modified live vaccine, may interfere with the interpretation of antibody-based serological surveillance that will be implemented post-eradication.

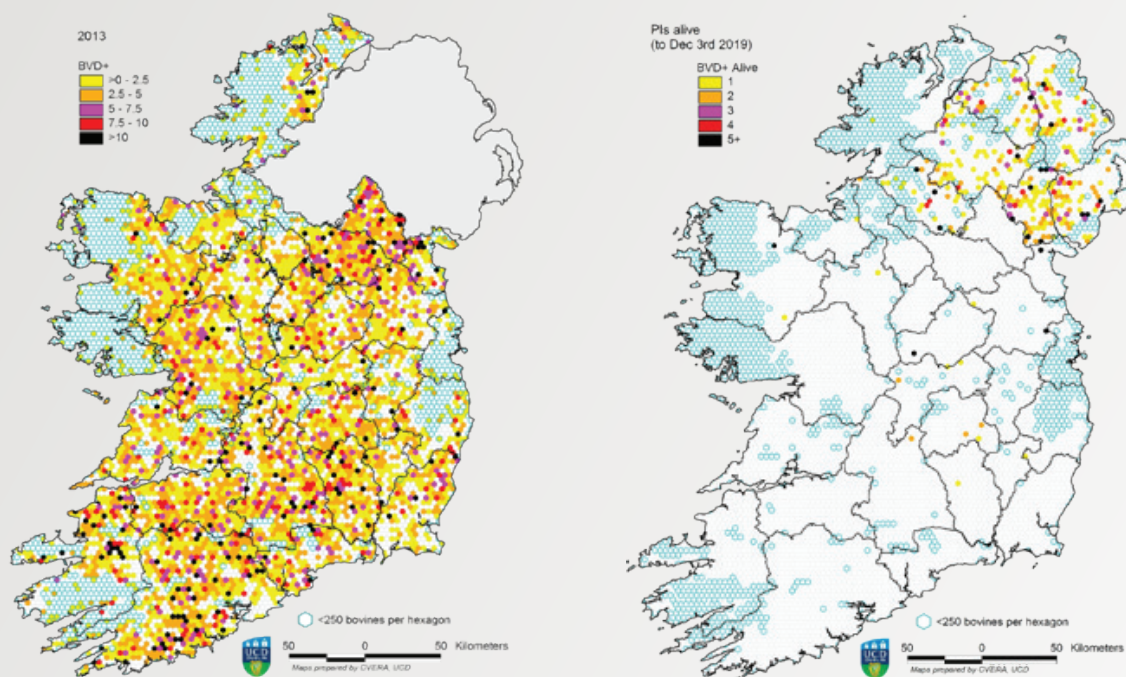
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PURPOSE OF VACCINATION

BVD vaccination is a means to manage the risk posed by BVD to an individual herd through priming the immune system of individual animals, so that in the event of the vaccinated animals becoming exposed to the BVD virus they can deal with the virus and reduce the risk of an infection becoming established (and passed on to the foetus, which may be born persistently infected if it survives) in the vaccinated animal. The decision to vaccinate or not depends on the risk profile of the herd.



The number of PIs alive in 2013 at the commencement of the compulsory BVD Eradication programme compared to the number of PIs alive in Irish herds at the end of 2019.

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BVD RISK ASSESSMENT FOR INDIVIDUAL HERDS

A risk assessment involves considering the probability of a hazard occurring (the spread of BVD into a BVD-free herd) and the consequences if BVD entered that herd.

Considerable progress has been made in the eradication of BVD, so the overall prevalence of BVD has diminished considerably. Therefore, **the probability** of spread of BVD has also diminished accordingly. In 2019, only 0.77% (548) of approximately 83,000 breeding herds had a positive result during the year. This represents a fifteen-fold decrease in the prevalence since the start of the compulsory programme in 2013, when the herd level prevalence was 11.3%. However, a number of risk factors have been identified at herd level which increase the probability of a BVD incursion.

These include:

Large herd size

History of BVD in the herd

Purchase of cattle

Purchase of so called trojan females (in-calf animals carrying a PI calf)

Increased concentration of BVD-positive animals in the vicinity of the herd

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

Therefore, 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.

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HOW TO REDUCE THE RISK

Purchasing Stock

- Buy low risk animals from Negative Herd Status (NHS) 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: [click here](#).
- 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.

Herd Management

Carry out a full BVD investigation (if not already completed) with your PVP if there has been previous infection in your herd.




For further information on Trojan calves: [click here](#).

For biosecurity advice: [click here](#).

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5 ISSUES TO CONSIDER FURTHER

-  In the event of an outbreak in a neighbouring or associated herd, consider commencing or re-commencing vaccination.
-  Herds where there is increased traffic 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 are of a higher value may warrant routine vaccination.

While the probability of a BVD spread may have diminished overall, the consequences of such an incursion have increased, as population-level immunity has waned. Serological studies have found seroconversion to BVD has fallen to 6% among under 30 month old cattle (*Barrett et al, unpublished*), in contrast to greater than 90% in 2009 (*Cowley et al., 2009*). This clearly shows that the natural resistance to BVD infection in Irish herds has decreased considerably and this is especially relevant for those herds which have un-controlled risk factors associated with the introduction of the virus. This reduction in immunity may leave herds more exposed to large outbreaks should a PI animal be introduced.

The purpose of this document is to provide information to enable informed decision making on the BVD vaccination. While this document seeks to inform, the advice is of a general nature and it recommended that farmers consult their own veterinary practitioners before discontinuing BVD vaccination.

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TECHNICAL WORKING GROUP

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