

People

- Adopt a routine of wearing clean protective clothing and footwear for use solely on your premises. Wash and disinfect regularly.



- Never wear work clothes to the market or other places where farmers and animals are present.
- Provide a washing area, brush, water and disinfectant or equivalent facilities for all visitors/workers on arrival and departure.
- Signs at the farm entrances with biosecurity advice for visitors.



Equipment

- Be careful sharing equipment between farms.
- Clean and disinfect between premises.

BVD Vaccinations

- Vaccinations are available please discuss with your clinical veterinary surgeon if this is a suitable option for your herd.



For further information or advice please contact:

Animal Health 01624 685844 or
Agriculture@gov.im

or view:

<https://www.gov.im/bvd>



**Isle of Man
Government**

Reilrys Ellan Vannin

Bovine Viral Diarrhoea (BVD) and Biosecurity



**We are all responsible for the protection
of the Island's animals**

Arrive clean : leave clean!

Bovine viral diarrhoea virus causes a variety of diseases in cattle the most important of which interfere with reproduction, affect the foetus and lead to mucosal disease. BVD virus can also cause enteritis which is usually mild but occasionally severe enough to kill even adult cows. Infection immediately before or during the breeding season will reduce conception rates and can cause early death of the embryo. Infection at any stage of pregnancy can result in abortion. The virus can also cause deformities in the calf.

BVD testing and possible results

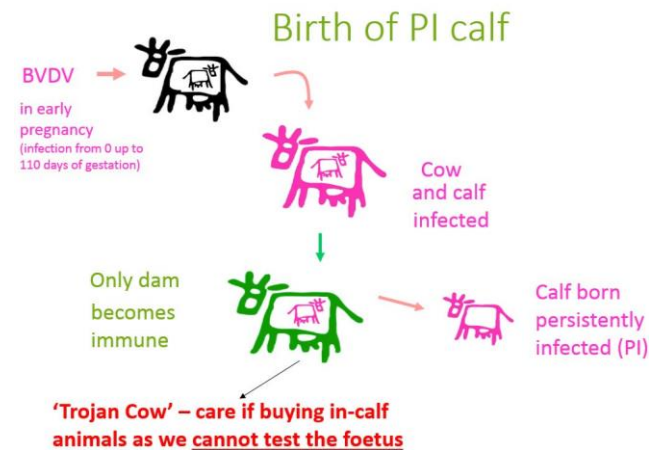
Tag test, tests for virus in the skin sample. Results are either

- Negative result (no virus)
- First positive result either indicates a possible PI or a transient infection (TI)
- Second positive result (at least 3 weeks after the first test) confirms a PI animal
- Second result- negative indicates a transient infection

Transient infection

The majority of infections with BVD virus occur after birth. In this case animals become transiently infected (TI) before recovering (due to the animal's immune system) and becoming virus-negative. TIs may occur without obvious clinical signs but depending on age, sex and immunity they can lead to a range of reproductive problems, including abortion and poor calf health with scours and pneumonias that respond poorly to treatment. TI calves may test positive for BVD virus. However, due to the immune response in TI calves a repeat test 3 weeks later would be negative, whereas a PI always give a positive result. TIs will shed virus but not as much as PIs and only for a short period.

Persistently infected (PI) animals- a PI animal is an animal that continuously sheds the BVD virus all its life. PI animals result from infection as a foetus (in the uterus) during the first 4 months of pregnancy. This is the period of time during which the immune system of the foetus is still not sufficiently developed. The calf becomes immune tolerant to the virus, meaning that it does not recognise the virus as something 'foreign'.



A PI animal cannot produce antibodies to BVD virus (of the same strain as the initial infection) and won't respond to vaccination. PI animals often die at a relatively young age from their infection or from other secondary diseases such as pneumonia.



However, some survive a lot longer and act as long-term carriers of BVD virus, continuing to infect the other animals in the herd. Although most PI animals are sickly or small, very few appear normal and do

not show signs of illness. These can breed successfully but their progeny are always PI, thus continuing the disease in the herd. An animal is considered to be a PI if it tests virus positive twice at an interval of at least 21 days.

Biosecurity is the prevention of disease causing agents entering or leaving any place where they can pose a risk to farm animals, other animals, humans, or the safety and quality of a food product.

Maintaining the security of **your** stock is important in maintaining your own financial security. The cost of spread and introduction of disease including BVD into any unit can be very high, and may be evident for many years after its arrival. Keeping all types of disease out is always far easier than treating or controlling the problem after it has arrived. It is in your interest to do all you can to stop it.

BVD transmission

- Transmission directly between animals is most common (direct).
- PI animals shed virus in saliva, mucous, tears, milk, faeces, urine, and any other bodily secretion.
- Indirect transmission via equipment, clothes and people can occur.

Animals and Isolation

- Isolating any animals which may be shedding BVD virus can help to prevent transmission especially isolating them away from other cattle in the early stages of pregnancy.
- Cattle on the Isle of Man cannot be transported unless they have a negative BVD result. Thus no PI cattle can be moved, but cattle could be TI, so isolate new animals on arrival on to your holding for 3 weeks.
- **Remember**, if buying in-calf cattle, the foetus cannot be tested, so could be infected.