

FACT SHEET

PESTIVIRUS



**stock
sense**
health | welfare | biosecurity



**Victorian
Farmers
Federation**

WHAT IS PESTIVIRUS?

Pestivirus (BVD) is a common viral infection in cattle with up to 90% of herds in Australia having evidence of infection. This results in losses of \$114 million per year.

In many herds pestivirus goes unnoticed, but it can cause substantial reproduction losses, premature death and poor growth calves born with the disease.

Calve born with pestivirus are known as persistently infected (PI) animals and shed the virus throughout their life.

Signs of pestivirus include:

- ▶ poor reproductive rates
- ▶ abortions
- ▶ deformed calves
- ▶ ill-thrift
- ▶ weight loss
- ▶ cough
- ▶ diarrhea.

HOW IS IT SPREAD?

Pestivirus is spread through any animal to animal or nose-to-nose contact where there is exchange of mucous, semen, and fluids for example.

A herd can be infected by:

- ▶ replacement bulls or heifers, store stock or strays
- ▶ animals returning from shows or agistment
- ▶ over the fence contact.

HOW CAN IT IMPACT YOUR HERD?

If a previously unexposed animal is infected with pestivirus it is known as a transient infection and may go unnoticed or display general signs of illness.

Significant impacts of pestivirus are seen when a previously unexposed in-calf cow or heifer is infected.

In pregnant animals the impact depends on the stage of pregnancy when infected:

- ▶ up to 30 days = early embryonic death
- ▶ mid pregnancy 30-150 days = birth defects, abortion or birth of PI calf
- ▶ mid to late pregnancy >180 days = birth of normal immune calf.

A PI calf is the main source of infection for the herd. These animals are usually stunted, poor doers and in 80% of cases die before two years of age. Some PIs can look normal and healthy, meaning sale bulls or any other stock could be a potential PI.

The impact of pestivirus on a herd will depend on the disease or immune status of the herd.

Herd immunity varies in and between herds. Many infected herds may have little evidence of disease while the introduction of a PI animal to a naïve or unexposed herd can result in catastrophic reproductive failures.

MANAGING PESTIVIRUS

There is no one-size-fits-all option when it comes to pestivirus management, and assessing your herd's susceptibility and level of risk will determine the best course of action.

Options for pestivirus control include:

- ▶ doing nothing
- ▶ eradication of disease
- ▶ vaccination
- ▶ auto-vaccination.

Understanding the risk of infection will help to guide your decision. Ask yourself the following:

- ▶ What is the current status of my herd?
- ▶ What is the likelihood of pestivirus entering my herd?
- ▶ Is there a cost-benefit to control pestivirus in my herd?

If the risk of pestivirus entering the herd cannot be controlled through incoming cattle, agistment, or contact from neighbouring farms, then eradication of the disease is not a sensible option.

It is important to know the current immune status of your herd. This is usually done in conjunction with your vet who will test between 6-10 animals from each management group to determine previous exposure and level of risk.

Antibody testing

This tests an animal's levels of immunity, or antibodies, through blood samples. This will determine if the animal has previously been exposed and if the infection was recent. PIs are usually negative to antibody tests.

Antigen test: ear notch, hair pluck or blood test

These test are used to confirm disease in sick animals, identify PIs to cull, or as a form of presale quality assurance for bulls.

Vaccination

Pestigard® is a killed vaccine administered twice initially, and with an annual booster. It is reported to be 80% effective at preventing PIs.

The decision on vaccination should be made in consultation with your vet who will help you determine if it is cost effective to vaccinate the whole herd or any sub-group such as bulls or heifers only.

Autovaccination

Autovaccination is where animals, usually heifers before joining, are allowed to be infected by a PI. This enables them to develop antibodies naturally.

PIs need to be identified for this process and managed very carefully to ensure the right stock are exposed appropriately and at the right time to avoid negative consequences.

TAKE HOME MESSAGES:

- ▶ Pestivirus is a common viral infection in cattle.
- ▶ Pestivirus can cause significant reproductive and genetic losses in cattle herds.
- ▶ Vaccination may not suit every situation, so establish the best management strategy for your enterprise.

It is important to remember that if you do nothing else to manage pestivirus, ensure that replacement bulls are antigen negative and vaccinated.

For further information, please contact Stock Sense on 1300 020 163 or stocksense@vff.org.au

FURTHER LINKS

[Bovine Viral Diarrhoea, Zoetis Animal Health](https://www.zoetis.com.au/diseases/bovine-viral-diarrhoea-virus.aspx)

<https://www.zoetis.com.au/diseases/bovine-viral-diarrhoea-virus.aspx>

[Pestivirus, Meat and Livestock Australia](https://www.mla.com.au/research-and-development/animal-health-welfare-and-biosecurity/diseases/reproductive/pestivirus/)

<https://www.mla.com.au/research-and-development/animal-health-welfare-and-biosecurity/diseases/reproductive/pestivirus/>

Author: VFF, original version published November 2012, updated January 2018.
Disclaimer: The Victorian Farmers Federation (VFF), its partners, agents and contractors do not guarantee that this publication is without flaw and do not accept any liability whatsoever for any errors, defects or omissions in the information provided. This publication is intended for general information purposes only and does not constitute financial, legal, investment, production or marketing advice. The VFF excludes all liability for any loss or damage of any kind arising in relation to this publication including any reliance on the information contained herein.