



The disease is difficult to detect. It creeps up on you, making it difficult to evaluate the direct losses or potential risks to the herd.

When pestivirus cycles throughout the herd, producers can experience a variety of losses which are directly attributed

to the disease, despite traditional methods of disease management being practiced.

Increases in cattle values, changes in cattle production systems and increases in the strategic movement and restocking of livestock has increased pestivirus prevalence and its overall impact.

Pestivirus management presents a great opportunity for productivity lift, improved animal welfare and biosecurity in Australian cattle breeding, feeding and dairy sectors. So it pays to be on guard.

Pestigard is the only registered vaccine in Australia proven to protect against pestivirus.

Pestivirus is easy to overlook

The pestivirus disease can be difficult to detect, often only showing subtle signs of its presence. This makes it difficult to evaluate the direct losses or potential risks to the herd.

As pestivirus cycles in the herd its impact can present in different ways. The most impactful events include:

- Lower pregnancy rates in some mobs with good rates in other mobs
- Disrupted and delayed calving, increasing calving spread
- Higher calf losses from joining to weaning, especially in heifers or first calvers
- Higher levels of disease in calves including calf scours, pinkeye and pneumonia / pleurisy
- Post weaning losses due to ill thrift and mortality

- Increased feedlot health costs or death rates [1,8]
- Lower than expected growth rates in some cattle – an obvious tail in the mob
- Poorer associated meat quality outcomes due to increased rates of pneumonia/pleurisy [2]

If cattle are unvaccinated and pestivirus infection is introduced by purchase of persistently infected (PI) cattle or cows pregnant with PI calves, it can spread rapidly, with many of the above impacts being observed.



Break the pestivirus cycle before it breaks you

Breaking the cycle between persistently infected and susceptible cattle is the key to managing pestivirus.

A small percentage of animals go undetected and shed the virus for life:

- In Australia estimates vary widely but it is commonly quoted that approximately 1% to 1.5% ^[3] of the entire cattle population are persistently (permanently) infected
- Persistently infected cattle cause significant productivity loss [3] as they excrete high levels of the virus their whole life

- PI animals are the primary source of infection and virus prevalence in the industry
- Many PI animals will die within 18 months of birth, however some of these will continue to live in the herd and infect cattle for years



How much is pestivirus costing you?



CATTLE TICKS

PESTIVIRUS

INTERNAL PARASITES

Pestivirus is the second most costly cattle disease next to cattle ticks

\$114M 💂

Pestivirus costs the industry \$114M in production losses [4]

Prevalence



Females are often
exposed during their first
two pregnancies, disrupting
their breeding pattern
and placing them at risk
of early culling [6]

Up to 90% of cattle herds have a history of exposure [5]



Youngest animals are the most susceptible to infection and subsequent losses

Impact on farm



Conception failure, early pregnancy abortion, and mortality of PI calves



Ongoing annual losses of 5-10% where pestivirus persists [3,5,6]



50%

An untimely disease incursion into a naive herd can cause a pestivirus crash and reduce calves by 25-50% [6,7,9,10,11]

23% reduction of lactating cows becoming pregnant within four months of calving. Calf wastage increase by 9% [3]



BRD complications in feedlot

to develop BRD than non-infected cattle [1,8]



NZ dairy heifers dramatically underperformed



LESS



LESS



LESS

A trial of NZ diary heifers monitored their milk production. The PI cattle dramatically underperformed when compared to their non-PI herd mates.[12]

Pestivirus in northern beef herds



Dr Toby Wass

LONGREACH, QUEENSLAND

Maximising breeder efficiency is a key driver of farm productivity and profitability in the northern Australian management systems. Pestivirus (BVDV) is one of only a few infectious diseases in this environment that can reduce breeding rates and increase calf wastage.

Our veterinary practice has undertaken extensive testing and monitoring on both corporate and private business which has repeatedly shown that the disease is widespread in northern Australian beef herds. This level of infection is contributing to poor pregnancy rates, abortions, increased calf mortality and poor weaner productivity year in and year out.

I am confident that most of these businesses would benefit from increased pestivirus control in their systems.



Pestivirus in southern beef herds





Dr Chris Hallett COOLAH, NSW

Pestivirus losses are common on cattle properties in Central NSW and have become an increasing concern. Our veterinary practice has seen substantial economic losses of more than \$250,000 and the subsequent emotional stress which occurs with these disease incursions. The disease has often occurred when farmers purchase cattle to rebuild their herds after the drought and fail to mitigate the risk of the disease. With the current pricing and supply constraints of replacement breeders, I now recommend all cattle are vaccinated with Pestigard.

Pestivirus in dairy cattle



Dr Craig Dwyer SMITHTON, TASMANIA

Many dairy farmers consider their herd to be 'closed' from a disease perspective. However, pestivirus is an insidious disease that tends to sneak into many farms despite there being readily available testing and a good vaccine. In dairy farms in Tasmania, pestivirus has caused business threatening financial losses. I continually urge producers to ASSESS, MANAGE & MITIGATE for pestivirus. Assess purchased stock by obtaining a Cattle Health Declaration and or testing, assess your own herd status by testing annually heifers and cows, manage the risk by vaccination and use this testing and surveillance to mitigate the ongoing threats of pestivirus.



Pestivirus in feedlots



Dr Enoch Bergman ESPERANCE, WESTERN AUSTRALIA

Meat and Livestock Australia ranked pestivirus (BVDV) as the second most costly endemic disease affecting the Australian beef industry, surprisingly, I believe they may have significantly underestimated the true impact of the disease. MLA, most veterinarians and many producers recognise the potentially catastrophic implications of the exposure of immune-naïve breeders to Persistently Infected (PI) animals during breeding or in early pregnancy. However, what remains underappreciated by many is the profound and prolonged immune suppression resultant from the first exposure of an animal of any age to a Pl. Often, this may occur at entry at the feedlot. Dr. Bill Hessman, in a landmark 22,000 head study in a Kansas feedyard, showed an impact of \$68.49 at closeout upon every animal which shared a pen with a PI compared to those on feed without exposure to a Pl. Dr. Tony Batterham and myself were able to demonstrate a 2 fold increase in morbidity in a smaller Australian feedlot trial modelled on Hessman's work. It is clear to me that we may be seriously underestimating the impact of pestivirus in Australian feedlots and that more work needs to be done to better understand the cost of PI animals and the benefits of vaccination for pestivirus on lot fed animals.

Protection is simple & effective

Vaccinating cattle with Pestigard is the easiest and most effective way to protect your herds against the impacts of pestivirus.

A vaccination program for a herd starts with a 2-dose heifer treatment up to 6 months apart simply followed with annual boosters on bulls, cows and any other animal retained on farm for over 12 months post previous vaccination. Initial vaccination of breeding animals must be completed prior to joining to achieve the optimal outcomes from vaccination.

Vaccination schedule

CATTLE TYPE	1ST DOSE	2ND DOSE / ANNUAL BOOSTER
Calves	*	*
Heifers	6–8 weeks pre-joining ^{\$}	2-4 weeks pre-joining
Cows		2-4 weeks pre-joining
First season / new bulls	6-8 weeks pre-joining	2-4 weeks pre-joining
Bulls		2-4 weeks pre-joining
Steers#	Coincide with heifer vaccination	4 weeks-6 months after first dose \$

^{*} Calves can be safely vaccinated from 3 months of age — two doses (4–6 weeks apart), followed by a third dose 2–4 weeks before joining/insemination.



^{\$} The interval between priming and booster doses can be extended to 6 months.

[#] Ideally coincide steer vaccination with heifer vaccination.



Always on guard

Find out how easy it is to protect your herd from pestivirus and optimise your returns.

Talk to your Zoetis cattle product specialist on 1800 814 883, your local cattle vet

or rural store. Or visit www.zoetis.com.au/ls



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REFERENCES

[3] Hay, K.E., et al., Associations between exposure to viruses and bovine respiratory disease in Australian feedlot cattle. Prev Vet Med, 2016. 127: p. 121-33. [2] Blakebrough-Hall, C., J.P. McMeniman, and L.A. Gonzalez, An evaluation of the economic effects of bovine respiratory disease on animal performance, carcass traits, and economic outcomes in feedlot cattle defined using four BRD diagnosis methods. J Anim Sci, 2020. 98(2). [3] McGowan, M., et al., Epidemiology and Management of BVDV in Rangeland Beef Breeding Herds in Northern Australia. Viruses, 2020. 12(10). [4] Lane, J., et al., Final report priority list of endemic diseases for the red meat industries. 2015, Meat & Livestock Australia: Limited: North Sydney. [5] Morton, J.M., et al., Bovine viral diarrhoea virus in beef heifers in commercial herds in Australia: mob-level seroprevalences and incidences of seroconversion, and vaccine efficacy. Aust Vet J, 2013. 91(12): p. 517-524. [6] Taylor, L.F. and B.J. Rodwell, Outbreak of foetal infection with bovine pestivirus in a central Queensland beef herd. Aust Vet J, 2001. 79: p. 682-685. [7] McGowan, M., et al., Epidemiology and Management of BVDV in Rangeland Beef Breeding Herds in Northern Australia. Viruses, 2020. 12(10). [8] Hay et al., Effects of exposure to Bovine viral diarrhoea virus 1 on risk of bovine respiratory disease in Australian feedlot cattle. Prev Vet Med, 2016. 126: 159-169. [9] Morton JM, Phillips NJ, Taylor LF, McGowan MR, Aust Vet J 2013;91:517-524. [10] McGowan MR et al., In: Proceedings Northern Beef Research Update Conference 2013, 61-66. [11] Taylor and Rodwell 2001, Aust Vet J;79:682-685. [12] Voges et al, Vetscript September 2006; 22-25.