

Cattle Get Colds

Australian surveillance shows that *Mannheimia haemolytica* (MH) is one of the most common bacterial components of the BRD complex.

Abattoir data indicates that the occurrence of BRD on-farm is common but often goes undetected. The consequence is depression and loss of appetite causing a reduction in carcass weight and reduced meat quality of young cattle¹.



Like people, cattle get colds. When one person gets a cold it doesn't take long for it to spread to others. Many of us work through having a cold and cattle are much the same however they have evolved to hide their symptoms to avoid being singled out by predators.

If you see any symptoms of 'a cold' then it's likely that there are many more challenged or infected cattle. During stressful times cattle are more susceptible to 'catching a cold'. This includes periods such as weaning or where there is high density contact, like trucking or in sale yards. Disease can spread quickly and insidiously so that by the time illness is evident, infection can be widespread.

Illness can come from primary viral agents like Pestivirus (BVDV) and Infectious Bovine Rhinotracheitis (IBR) but it is bacterial infections, particularly *Mannheimia haemolytica* (MH), which causes secondary infection and severe illness.

About *Mannheimia haemolytica* (MH) and control

In healthy cattle, MH lives dormant in the upper respiratory tract and the throat. When the animal is vulnerable, the bacteria quickly invade the lower respiratory tract causing Bovine Respiratory Disease (BRD).

Early vaccination to prevent infection gives these vulnerable cattle the best protection against MH or where MH is involved in a severe co-infection. Bovi-shield MH-One provides a rapid immune response with protection in 7 days lasting at least 17 weeks from one injection.

For more information visit zoetis.com.au/LS

Pestivirus

For control of pestivirus in young cattle (Australia's most prevalent and costly viral disease), a vaccination program for the breeding herd to reduce the incidence of the disease on-farm is the best approach.

For more information visit zoetis.com.au/LS

IBR

Using a live intranasal viral vaccine provides the fastest onset of high level protection against IBR. Most importantly this stimulates a true localized response where the virus attacks.

The most convenient and critical time to vaccinate is when cattle arrive at a feedlot although vaccination with the highly effective live vaccine on farm is becoming a more common practice. It is recommended that you consult your veterinary advisor for specialized products.

For more information visit zoetis.com.au/LS

Bovi-Shield® One-Shot Vaccine



Bovi-Shield MH-One, a true 'one shot' (single dose) vaccine for the control of bovine respiratory disease caused by *Mannheimia haemolytica*, is brought to you by Zoetis.

When to vaccinate:

WEANING	FAST PROTECTION	ONE SHOT
PURCHASED CATTLE	FAST PROTECTION	ONE SHOT
BACKGROUNDING	FAST PROTECTION	ONE SHOT
FEEDLOT ENTRY	FAST PROTECTION	ONE SHOT
SUSCEPTIBLE CATTLE	FAST PROTECTION	ONE SHOT

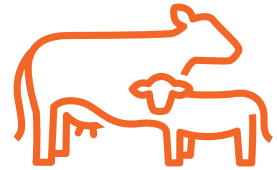
Benefits of Bov-Shield One-Shot Vaccine:

- The only effective registered One Shot MH vaccine²
- Rapid onset – optimal immunity against BRD within 7 days of vaccination
- Protection lasts for at least 17 weeks – optimal coverage during weight gain periods²
- Flexible treatment program - Can be pre-induced in the paddock before entry to feedlot
- Studies conducted found that Bovi-Shield MH-One is effective against identified MH strains from Australian cattle and is equally effective in Australian cattle as it is for cattle in the US³.
- Saves the cost of second dose and mustering and handling cattle twice.

References:

1. Griffin D Animal Health Research Reviews 2014:15(2); 138-141
2. Bovi-Shield MH One Product Label
3. Confer AW et al Comparative study of bovine Mannheimia haemolytica isolates from Australian and US cattle, Oklahoma State University 2011

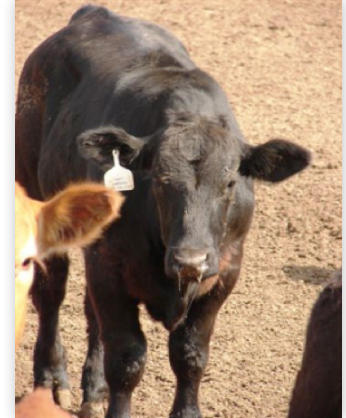
Prepare your cattle with the only vaccine that provides on-farm control of Bovine Respiratory Disease (BRD) in one shot – Bovi-Shield® MH-One.



Bovine Respiratory Disease (BRD) in paddock cattle

Research shows that BRD infections in young cattle are responsible for production losses impacting weight gain and meat quality¹.

Dee Griffin (2014) showed that observations of lungs in abattoirs indicated that sub-clinical BRD is common (ie, significant numbers of cattle with lung lesions at slaughter were never identified as sick on farm)¹. Other studies show lower average daily gains (ADG) from cattle with lung lesions that were not treated for BRD compared to cattle with normal lungs^{2,3,4,5,6,7}. Results show that BRD lowers ADG by an average of 100 grams a day, lowering end carcass weight and reducing meat quality.



Australian surveillance data shows that *Mannheimia haemolytica* (MH) is one of the most common bacterial components of the BRD complex and published data provides evidence of the impact MH can have on young pastured cattle (weaning and/or backgrounding)⁸.

Bovi-Shield MH-One is the only vaccine that provides registered on-farm protection from one injection

Bovi-shield MH-One is the only registered single shot BRD vaccine in Australia.

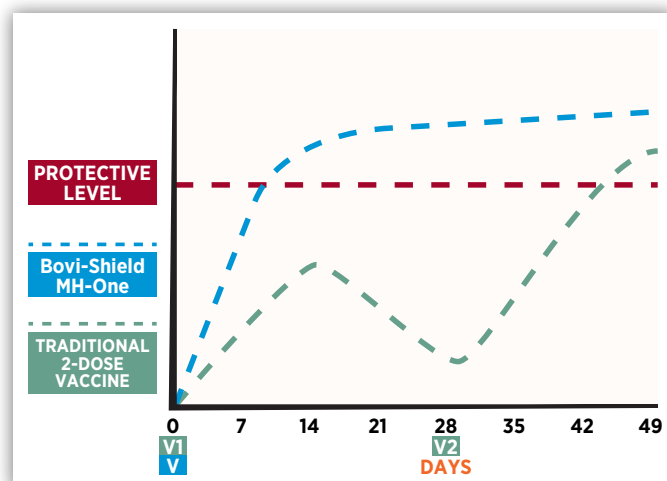
The patented technology uses high potency freeze-dried antigen and unique proprietary adjuvant that are simply mixed on farm prior to use.

Bovi-Shield MH-One works fast giving protection in 7 days

Rapid coverage is critical in the high stress environment where young, newly weaned, susceptible and unsocialised cattle are involved.

All other MH vaccines sold in Australia rely on old technology requiring a two-dose vaccine regime with registered protection only occurring a period after the 2nd dose is given. This is a normal requirement with most conventionally made cattle vaccines. There is no registered protection after a single dose of these vaccines leaving cattle susceptible to infection.

Profile of One Shot Compared to Two Shot Program



Bovi-Shield One Shot Vaccine

Optimum preparation for the best-practice feedlot protocol

Vaccinating with Bovi-Shield MH-One on farm ensures that your cattle are ready to receive the most effective disease control program at feedlot induction. Highly effective live vaccines using nasal delivery have been proven to work best at induction to protect your cattle against Infectious Bovine Rhinotracheitis (IBR).

When compared to killed injectable IBR vaccines, a live vaccine using preferred nasal delivery stimulates a non-specific local immune response in the upper respiratory tract⁹. Importantly this response optimizes the performance of cattle on feed^{10,11}.

In Australia specialist veterinary advisors supply live BRD vaccines to ensure cattle receive the highest level of protection at the time it is most needed.

Bovi-Shield One Shot Vaccine

- The only effective registered One Shot MH vaccine
- Rapid onset – optimal immunity against BRD within 7 days of vaccination
- Protection lasts for at least 17 weeks – optimal coverage during weight gain periods
- Flexible treatment program - Can be pre-induced in the paddock before entry to feedlot
- Studies conducted found that Bovi-Shield MH-One is effective against identified MH strains from Australian cattle and is equally effective in Australian cattle as it is for cattle in the US¹²
- Saves the cost of second dose and mustering and handling cattle twice

References:

1. Griffin D Animal Health Research Reviews 2014:15(2); 138-141
2. Wittum T et al J of the AVMA 1996:209;814-818
3. Thompson P et al J of An Sc 2006:84;488-498
4. Schneider M et al J of An Sc 2009:87;1821-1827
5. Leach R et al J of An Sc 2013:91;3564-3573
6. Busby D et al TCSCF Data Summary Iowa State Uni 2014
7. Rezac D et al J of An Sc 2014:92;2595-2602
8. Taylor L Aust Vet J 1998;76:21-24
9. Cortese VS et al Veterinary immunology and Immunopathology 187(2017):35-41
10. Duff GC et al Bovine Practitioner 2000:34(1);66-71
11. Step et al KK Vaccine Vaccination 2015:1(3)1-10
12. Confer AW et al Comparative study of bovine Mannheimia haemolytica isolates from Australian and US cattle, Oklahoma State University 2011



In 2010 MLA conducted a comprehensive survey of 47 participating Australian feedlots, representing the range of feedlots operating in Australia at the time. Some of the key results are reported in this brochure.

84%
OF ANIMALS



that are pulled for illness while on feed are pulled for respiratory disease¹.



4.1%



is the fatality rate for those animals¹.