COOPERS® BEEF RANGE

BOVILIS® MH+IBR

ROTAVEC CORONA

TRIFECTA®
**BOVINE RESPIRATORY DISEASE**

Pneumonia in cattle, also known as Bovine Respiratory Disease (BRD), is a potential health issue for beef producers and is one of the leading causes of economic losses in the beef industry. The lungs of cattle are highly susceptible to infection, within hours BRD can cause irreversible damage to the lung tissue if left untreated leading to reduced growth and even rapid death.

**WHY ARE CATTLE PRONE TO LUNG DISEASE?**

The lungs of cattle are prone to disease and can impact on the performance of the animal. Compared to a horse the total lung volume of cattle lungs is much smaller, being only one third the capacity. However, the oxygen needs of cattle are double that of a horse per kilogram bodyweight. To satisfy this demand the cattle lung is used far more intensively.

**WHAT DAMAGE OCCURS TO THE LUNG?**

BRD may start with a viral infection that compromises the respiratory tract, providing the potential for the development of an opportunistic bacterial infection. Once the lung is infected, inflammation and bacterial infections cause lesions to develop leading to severe often irreversible damage to functional lung tissue.

The result is the tell-tale symptoms of BRD such as breathlessness, fever, loss of appetite and depression. A coughing animal, with rapid breathing can quickly lead to a dull, depressed animal with a poor appetite. Pneumonia and death can rapidly follow.

BRD is not only a disease of intensive cattle industries. Cattle raised on pasture based management systems are also prone to BRD events particularly during significant but routine management events such as weaning.

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WHAT TRIGGERS BRD?

**STRESS – The major catalyst for the BRD complex**

Cattle are herd animals and changes to their environment, diet and herd mates can be significant stress factors. Common cattle handling activities that can trigger mild and severe symptoms of BRD are due to the increased stress the animal feels.

British breeds of cattle can be more prone to BRD issues and in particular the younger animals. Increasingly cattle entering feedlots and saleyards are young cattle that are more sensitive to changes in their environment where the impacts of co-mingling, transport and feed changes can trigger symptoms of BRD.

BRD is triggered by infectious and environmental factors affecting the animals immune system. An animal with a weakened immune system allows naturally occurring bacteria to multiply excessively and the infection spreads to the lung.

**Key management factors that can contribute to increased rates of BRD include:**

- **Improper weaning practices**
  - Poorly weaned/not yard weaned and sent straight to market.
  - Co-mingling of cattle from different sources – (major issue). Changes in pecking order as a result of co-mingling is a very understated stress, along with exposure to new viral and bacterial pathogens.

- **Transport**

- **Dehydration**

- **Change in nutrition and water** – moving from grass and natural water to feeding from bunks and troughs.

- **Sudden changes in environmental temperature** – autumn and spring are times of increased incidence of BRD.

- **Interaction with humans** – can’t avoid interaction with humans, especially if selling through saleyards then movement to feedlots.

- **Stress** – caused by factors above.

IMPACTS OF PNEUMONIA ON ANIMAL PERFORMANCE

While the impacts of BRD can vary significantly based on production systems, breed and classes of cattle and health management programmes; most cattle are susceptible to BRD at some point in their lifetime and the impact can have implications for growth performance, marketability of animals and the returns achieved by producers.

It is not uncommon for young, BRD susceptible cattle in intensive situations such as weaning, saleyard or feedlot to experience levels of sickness which affect 25% of the mob, including death of some animals. By reducing BRD in cattle, performance is improved and the animal welfare benefits are significant as well as the subsequent reduction in antibiotic treatments.


PREVENTION AND PREPARATION STARTS AT HOME – YARD WEANING FOR PERFORMANCE

Yard weaning is the single most important practice to fully prepare steers and heifers. It is a proven and simple procedure. This confinement is beneficial in terms of allowing socialisation, familiarisation with feeding systems and increasing human contact.

Yard weaning has become increasingly popular, where young cattle can be managed more intensively over the weaning period than paddock-weaned cattle. The practice can be beneficial whether cattle are retained on the property or sold post weaning.

In data comparing yard-weaned cattle to paddock weaned cattle on health impacts experienced at feedlot. The yard weaned cattle were 73% less likely to suffer BRD symptoms upon arrival to feedlot.

SALEYARD CATTLE DESTINED FOR FEEDLOT/BACKGROUNDING OPERATIONS

Animals sold through saleyards can perform as well as any animal, however, cattle purchased through saleyards can be particularly susceptible to BRD because of increased levels of stress.

It is highly recommended that young cattle entering saleyards are yard weaned and pre-vaccinated against BRD to improve the welfare of the animal and to give buyers confidence in the performance of the animal upon delivery.

Vaccinations given at the time of high stress such as delivery to feedlot often reduces the effectiveness of the programs – hence buyers are increasingly demanding pre-vaccinated cattle.

PREPARING CATTLE FOR SALE

Vaccination can also be an important risk management strategy to prevent respiratory disease, even for those farming in less intensive situations.

When transporting to saleyards or feedlot, pre-vaccinating cattle 3-4 weeks prior to delivery with BOVILIS MH+IBR will give the vaccine adequate time to sensitize the animal against the two major BRD pathogens.

Cattle buyers can then complete the vaccination schedule with a booster dose upon arrival at the property. This practice is becoming increasingly popular for feedlot buyers who want to buy cattle that perform in intensive environments.

Theoretical view of vaccination responses

![Stress Factor](example)

![Protective Antibody Level](example)

"Unprotected period with first shot at arrival"

Improved animal welfare and performance

Pre-sale vaccination with BOVILIS MH+IBR

Second dose BOVILIS MH+IBR given at property entry to complete vaccination protocol

Improved animal welfare and performance

SUPPLYING FEEDLOT MARKETS

The cost of BRD to the producer goes beyond animal performance

In the paddock post-weaning, low levels of respiratory disease can be present but undetected and may impact on animal performance.

A significant cost of respiratory disease to pasture beef producers can be lost market opportunities. Feedlots are prolific buyers of young cattle, however, their preference for well-prepared cattle means that they prefer healthy cattle that have been vaccinated against respiratory disease – whether buying through saleyards or direct from farm.

FEEDLOTS WANT CATTLE THAT PERFORM

Feedlots know the value of quality cattle and reliable cattle suppliers. Working closely with cattle buyers can help build marketing options for your cattle and build long term relationships that reward both the feedlot and the cattle producer.

Reward

Increasingly feedlots are rewarding producers who supply pre-vaccinated cattle because those cattle will adapt to feedlot environments, maintain good health and perform better. Financial incentives for cattle pre-vaccinated with BOVILIS MH+IBR prior to consignment to feedlot are available. Always talk to your local feedlot buyer about current incentives on offer.

Reputation

Producers that supply quality cattle that perform consistently for feedlots, very quickly build a strong reputation as a supplier that a feedlot wants to deal with. This gives producers advantages when there are many cattle suppliers selling cattle into the market.

Relationship

Cattle suppliers that deliver quality cattle that perform will build a long term relationship with feedlot cattle buyers. Becoming a preferred supplier of cattle to feedlots can have long term advantages over the season including financial incentives and vendor preference when seasonal cattle supply levels are high.

Dosage and administration

- 2 mL to be given subcutaneously on the side of the neck at each vaccination.
- Optimum is two shots prior to feedlot entry; alternative is a priming dose 3-4 weeks prior to entry and a booster at feedlot induction.
- Vaccination response will be maximised if cattle are vaccinated prior to peak challenge and stress events.

Meat Withholding Period – NIL.

Export Slaughter Interval (ESI) – Not required.

Packaging – 100 mL (50 dose) and 250 mL (125 dose) bottles.

Storage – Store at 2-8°C (refrigerate, do not freeze – discard if previously frozen).
CALF SCOURS – A WIDESPREAD PROBLEM

Calf scours is one of the main calf diseases in Australia, with large economic losses for beef cattle. In a report on calf scours in beef calves; 55% of beef veterinarians believed that scours was a significant economic cost to beef producers. A third of all producers in the report had mortality rates greater than 2% of calves born, with total calf scours costs ranging up to $68.60 per cow.

LONG TERM SETBACKS TO CATTLE PERFORMANCE

Growth performance

Poor nutrient absorption due to permanent gastro-intestinal damage leads to reduced growth rates and can delay time animals take to reach target weights.
- Delay milestone weight targets.
- Lengthen the ‘weight range’ tail of the mob.

Reproductive performance – your heifers are your reproductive future – calf scours can delay key reproductive milestones
- Delays in age to joining weight (extends joining, variation in calving dates).
- Breeding heifers sold off prior to joining (reduce genetic selection).
- Less calves reduces herd genetic gain and surplus weaner sales.

THE BROADEST SPECTRUM CALF SCOURS VACCINE#

- Rotavirus
- Coronavirus
- E.coli
- Cl. Perfringens (Types C and D)

ROTAVEC CORONA offers producers the broadest calf scours vaccine available for maximum coverage against common scours pathogens. As most scours episodes are caused by multiple pathogens – targeting as many pathogens as possible can reduce the total scours events across the calving season.

Dosage and administration: 2 mL subcutaneously.

Sensitising dose: 10-12 weeks prior to calving.

Booster dose: 4-6 weeks after initial vaccination (i.e. 4-6 weeks prior to calving).

Annual booster: 4-6 weeks prior to calving.

Milk Withholding Period – NIL.

Meat Withholding Period – NIL.

Export Slaughter Interval (ESI) – NIL.

Packaging – 20 mL and 100 mL bottles.

Storage – Store at 2-8°C (refrigerate, do not freeze – discard if previously frozen).

SCOURS DIAGNOSIS

Coopers offers a diagnostic service for beef producers to help identify pathogens causing calf scours in your calves.

Talk to your local veterinarian for more information.

# Broader spectrum refers to the number of antigens in Rotavec Corona.
7 Broadest spectrum refers to total number of antigen types in Rotavec Corona.
Sheep farmers have been fighting drench resistant worms and resultant production losses for many years. Alarmingly, drench resistance is increasing on Australian cattle properties as well.\textsuperscript{11,12}

**TRIFECTA FOR CATTLE**

**THREE ACTIVES ARE BETTER THAN ONE**\textsuperscript{14}

Trifecta contains 3 different active ingredients to kill worms. Even if a worm population is resistant to one active it will be killed by the others. As a result triple combination drenches are recognised as a very effective tool in long term drench strategies.

**SHORT ACTING DRENCHES ARE BETTER RESISTANCE FIGHTERS**\textsuperscript{14,15}

Long acting drenches expose parasites to the active ingredients over a long period of time. Combined with the fact that as the drench ‘tails off’, parasites can be exposed to sub-lethal doses of the active, this has been proven to aid in the onset of resistance. Short acting drenches don’t continue to expose the worms to the active over long periods and this reduces the selection for resistance.

**ORAL DRENCHES GO ONE BETTER: DIRECT TO THE WORMS**\textsuperscript{14,16}

Oral treatments for worms go straight to the gut where worms live. Orally administered MLs may achieve increased efficacy compared to injectables or pour-ons which have to be absorbed into an animal’s bloodstream, and then re-circulated to be released into the gut tissue where the worms live.

**A TRIPLE DRENCH THAT DEFENDS SHEEP AND CATTLE AGAINST DRENCH RESISTANCE**

**HOW TO USE TRIFECTA**

**Active constituents**

2 g/L Abamectin, 80 g/L Levamisole hydrochloride and 45.3 g/L Oxfendazole, 5 g/L Cobalt (as Cobalt EDTA) and 1 g/L Selenium (as Sodium Selenate).

**Presentation and storage**

2.5 L and 10 L packs available. Store below 30°C (room temperature) in the closed original container in a well ventilated area. Protect from light.

**Re-treatment interval**

Do not retreat animals for 28 days after last treatment.

**Withholding Periods/Export Slaughter Interval**

WHP meat – 21 days.

WHP milk – CATTLE: DO NOT USE in lactating cows or within 28 days of calving where milk or milk products will be used for human consumption. If cows calve earlier than 28 days after treatment, milk may contain residues. This milk MUST NOT be used for human consumption, or supplied for processing for at least 28 days following treatment. Calves fed this milk should not be slaughtered for human consumption within 21 days. Cattle ESI – 21 days.

For cattle over 100 kg and over 16 weeks of age\textsuperscript{13} – to treat and control internal parasites.


\textsuperscript{12} Lyndal-Murphy, M., Rogers, D., Ehrlich, W. K., James, P. J., & Pepper, P. M. (2010). Reduced efficacy of macrocyclic lactone treatments in controlling gastrointestinal nematode infections of weaner dairy calves in subtropical eastern Australia. Veterinary parasitology, 168(1), 146-150.

\textsuperscript{13} Always check label for full dosage instructions prior to treatment.


Coopers Animal Health Range

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For further information, call your local Coopers Territory Sales Manager on Toll Free 1800 885 576

www.coopersanimalhealth.com.au

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