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Agilis Updates

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Detecting BVD in Calves

In general, control of transmissible disease in dairy herds requires a multiprong approach – biosecurity to prevent entry, vaccination to control spread, and testing to eliminate whenever possible.

The weighting of each of these approaches varies according to the disease and its impact. In some diseases with high prevalence and limitations on testing, like IBR, vaccination is an effective control method. With BVD, the precision of the diagnostics to detect a PI means that biosecurity and elimination are equally critical control points, with vaccination supporting herd health.

Ear notch samples can be tested for BVD antigen from birth – the testing is sufficiently accurate to detect the virus immediately, and there is no longer a need to wait until the calf is over 35 days of age.

There are 3 reasons why this a good idea:
- Detects PI calves early in their lives, before they negatively impact the health and growth of their cohort
- Can be used as a traceback to find PI cows if there is virus detected in the bulk milk (PI cows always have PI calves)
- It is a way to assess the level of exposure to BVD during pregnancy – detection of a PI calf may explain poor reproductive performance associated with embryonic losses.

If only replacement heifer calves are tested, the ability to traceback for PI dams is limited and especially if AI's not used on first calf heifers.

Pooled sampling significantly reduces costs but requires good record keeping to assist with traceback should a positive result be found.

As PI calves are born, and not created after birth, the elimination of PI animals is a critical control point for eradication.

The detection of a PI calf is an indicator of the level of exposure to circulating BVD virus in the herd during a critical time. However, the creation of a PI animal is only a small part of the story – high levels of virus as shed by a PI animal constantly challenges the immune system of cohort animals and BVD virus that is allowed to circulate in a group of animals has the following production impacts:

In animals less than 12 months of age, clinical disease can show up as illthrift, ulcers, coughing, and lameness.

Later in life, circulating virus can lower reproductive performance through failure to conceive and early embryonic loss.

Finally, as with **IBR**, clinically infected animals with BVD have shown to have **reduced feed and water intakes for 3 weeks**, reducing milk production and potentially the ability to return to heat/ get in calf depending on timing.

Therefore until we eradicate BVD from New Zealand, there is a three prong approach to control:

1. Biosecurity – prevent incursions.
2. Vaccination – prevent infections and the ability of virus to remain circulating in groups of animals
3. Testing – BVD bulk tank + PI testing of replacement heifers

No vaccine in New Zealand has the ability to completely prevent the formation of PI animals therefore testing calves will remain a critical step until eradication is achieved.

And special consideration for **bulls** at this point of time. PI test negative is table stakes (imagine the impact of a PI bull…) but if there is BVD, or **IBR**, virus circulating in the herd any resulting clinical illness (transient infection) **can result in a period of inactivity**, but more impactful is the potential azoospermia for up to 6 weeks following a period of illness.

Agilis have stock of Hiprabovis 3 in 3 handy sizes, 5 dose, 30 dose and 80 dose.

If you have any questions about our product range please phone your Agilis rep today.

Equimune® Settle®

Both Equimune and Settle are potent biological immunomodulators manufactured using a mycobacterium cell wall fraction (MCWF). When injected into the animal, the MCWF induces a quick, strong and broad response of the animal's immune system. The immune response is non-specific and not targeted at specific pathogens, but Equimune and Settle have been approved by regulators around the world, including ACVM, as they demonstrate safety and efficacy against chosen target pathogens in the target animal.

Equimune is an immunotherapy for the treatment of equine respiratory disease complex (ERDC) of viral origin. It stimulates the innate and specific immune responses for several days after a single iv dose and can be given at the early onset of disease in its acute phase. It is safe to use in pregnant mares.

Settle, an immunotherapy for equine endometritis, was tested in a controlled research study against one of the common causative pathogens of endometritis - Streptococcus zooepidemicus, for regulatory approval. A group of Settle-treated mares were compared to a group of placebo-treated mares in this study. All mares were infected with the pathogen. Settle (as solo therapy) cleared infection by up to 80% 7 days post-treatment, whereas none of the placebo-treated mares were able to clear the infection at that time point.

Team Updates

Agilis is pleased to welcome our new Technical Vet, Ann Wilkinson!

After graduating from Massey Vet, Ann spent time in practise in Stratford and Te Puke before heading over to the US on a two-year adventure. Twenty-three years later she returned to NZ and has joined Agilis in a technical capacity. Over the intervening period Ann taught ambulatory medicine at Cornell University for 2 years, completed her MBA at Cornell, and had an 18+ year career with Pfizer/Zoetis in a variety of roles. Her initial role was a Technical Vet supporting the dairy portfolio across the Eastern states of the US, followed by strategic accounts management, working with key dairies across the US. A shift into a global team followed, focusing on the identification of new technologies and the development of partnerships, and provided the opportunity to move back to the Antipodes, albeit Sydney.

For a variety of reasons, it was time to move back to Christchurch, New Zealand, close to where she grew up on the farm in Chertsey, and after two years reacquainting herself with vet practise is excited about re-joining the animal health industry.

Tracesure and Copasure

Heifer Mating

The adequacy of trace minerals, particularly Copper, are always areas of concern as we head into the first mating season for our heifers. Theoretically we made the right assessments in autumn to protect our heifers from deficiencies through the winter associated with brassica feeding and, in some areas, to compensate for the decreased copper absorption associated with zinc administration.

However, it might be the ideal time to review the status of the heifers (and bulls!) to confirm that copper and selenium levels are in the optimal range for a successful mating season. Published reports in New Zealand have indicated that parenteral copper just prior to mating can have a detrimental effect on fertility, possibly associated with the high serum levels affecting the conceptus. (Wiseman DCV 2002; Hawkins DCV 2012).

Daily oral methods that are sometimes available to the herd (in feed systems and reticulated water supplies) are generally not feasible for heifers and supplementation with parasite drenching disappeared with the last heifer stomping on your foot. Administering a bolus of trace minerals and copper (TraceSure and CopaSure) at this time therefore is a way to prevent deficiencies through using a slow release devise and guarantees that each animal gets its required daily dose. One less thing to think about.

Calf Health

Optimizing the growth of calves after weaning is a challenge. Maintaining appropriate quality and quantity of feed and controlling parasites are key elements, but to maximise the growth targets achievable, the micronutrient levels also need to be optimized.

It is tempting to rely on multimineral drenches for supplementation of selenium and copper, but these forms are very short acting, and do not optimize parasite control programs. Administering boluses at weaning (100kg) gives a steady slow release of minerals over a long period of time and allows owners to focus on nutrition and parasite control. TraceSure provides up to 6 months of iodine, selenium and cobalt in a leaching bolus and CopaSure administers copper through the slow release of copper from copper oxide wire particles as they slowly migrate into the abomasum. Both boluses can be administered at the same time using the same delivery device.

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