



treating all animals large and small

April 2021

CLINICAL MASTITIS IN HEIFERS AT TEAT SEALING

Strep uberis is an environmental bacterium that is the main cause of post-calving heifer mastitis. Teat sealing is a great way to minimize this (providing it is done correctly). We have had great results teat sealing heifers; please remember to book us in advance. Our teat seal trailer is a fabulous piece of equipment for farms with no herringbone facilities!

A recent study by Selwyn Rakaia Vet Services documented blind quarters and intramammary infections in heifers found when teat-sealing (average 53 days before calving). Of over 20,000 heifers, 35 had clinical mastitis (0.17%) and 134 (0.67%) had a blind quarter. 24 samples were cultured and any growths were tested with PCR. Of these:

 \Rightarrow 62.5% grew Strep uberis

 \Rightarrow 25% had no growth

 \Rightarrow 1 case each of CNS, mixed growth and Truperella pyogenes

Those heifers with Strep uberis had a lower survival rate: 4 of the 15 were lost.

Other studies have found 0.3% mastitis in pre-calving heifers, and a greater number of CNS than strep infections. There are also other findings of blind quarters in 0.6-0.7% heifers pre-calving. It is believed that blind quarters are most likely due to trauma or infection, with a possible role of flies or suckler calves.

BCS AND DRYING OFF

We have a cool new tool which calculates a recommended dry-off date for cows individually. You can then mob them up by date. This is free to clients who use us for scanning (with dates) and doing a BCS score, as it uses this data in our system to calculate dry-off date.

LEPTO AND SALMONELLA

As we aim to get our dairy herds vaccinated for Lepto in winter, don't forget the yearlings will also need a booster.

MARK YOUR CALENDAR! Alan Bremner Memorial Farm Customers' Golf Day! Friday 14th May 2021

At Cambridge Golf Club - 9 holes only

First Tee off time 9:30am

\$10 Green Fee (cash only)

- Multitude of prizes, not just for the golf!
 - Alan Bremner memorial trophy
 - All day BBQ and liquid refreshments
 Catch up with mates

Book at the clinic now!





DISBUDDING GOATS

Welfare regulations will be coming into effect August of this year which will require pain relief authorised by veterinarians for disbudding kid goats.

Current opinion is that general anaesthesia is more effective than local blocks, and experiences are being shared between vets as to how this may be done efficiently for large scale farms.

There will be a series of roadshows held by the Dairy Goats Cooperative in May, and we hope to have some more details for how we can best fulfil our responsibilities then.



Many of you will already have sat down with your vet and had a discussion / planning session for milk quality and RVM drug usage. These lead well into a new plan we are implementing as we are now also incorporated into Fonterra's Cooperative Difference

framework under the Animal section. This requires farmers to develop with their vet an animal health and wellbeing plan.

It must include a discussion of:

- Lameness and mastitis incidence
- Body condition scoring
- Stock mortality
- Risk of antimicrobial resistance

These are based on the five domains of animal welfare which we can expand on:

- Health
- Environment
- Behaviour
- Nutrition
- Mental state

We look forward to catching up with you and making a positive difference!

COPPER I LIVER IMINERALS

It has recently been shown that mineral levels in livers from cull cows are representative of the herd. Getting tests done via the abattoir is an alternative to live biopsies or blood tests. Copper concentrations will drop in the liver before they do in the blood, so this is a good way of assessing copper depletion before actual deficiency kicks in.

There is quite a bit of discussion about trace element levels, with some very high numbers being recommended with no scientific data behind it. For example, excess copper is just excreted in the faeces or can even reach toxicity. Our selenium requirements are different in NZ to the USA as the pastoral diet has much higher natural levels of anti-oxidants than in grain. So checking Trace Element Status is in normal levels can save you money by reducing unnecessary extra supplementation.

Zinc blood concentrations are also worth checking during the Facial Eczema risk period. We have seen several outbreaks this year where concentrations were below protective levels despite supplementation through the water. Knowing the risk (from spore counting grass samples) and protection levels will help you to plan and minimize risk.

Some heartening news!

AgResearch Analysis confirmed NZ is the world's most emissions efficient producer. We clocked in at 0.77kg CO₂e per kg of fat and protein corrected milk. This is 48% less than the average (1.47kg CO₂e) of countries analysed. However George Moss, Waikato farmer and Climate Change Ambassador, points out we "must continue to adapt and adopt new technology and knowledge...for our environment, our consumers and humanity"







REPRO RESULTS - BENCHMARKING



The average Three Week Submission Rate for our Infovet farms was 82% (Target 90%). The average 6 week In Calf Rate was 66% (target 88%). Although the pasture quality may have been a limiting factor in spring, we have also seen a variety of factors impacting on mating, from heat detection to lame bulls. If you want to lift your herd performance, ask us for a Repro Consult to identify risk areas and opportunities for improvement.



Not-In-Calf vs Mating Length

Selected Clinic: All Clinics - Selected Farm: All Farms Year: 2020



*Target and Average rates supplied by DairyNZ

Dinfovet benchmark.

Submission Rate

Selected Clinic: All Clinics - Selected Farm: All Farms Year: 2020



*Target rate supplied by DairyNZ



Salmonella is a significant disease of cattle and sheep and it is increasing in prevalence. Usually striking without warning and spreading rapidly, the effects of Salmonella are devastating. Moreover, it can make you, your family and your staff very sick too. Since 2014 there has been a marked increase in

S. bovismorbificans in cows and calves, from a handful of cases to 281 in 2019. Illness and death rates have been seen of up to 46% & 8% in dairy herds and 75% & 50% in calves. There has also been a rise in human cases, and some in sheep. Several sheep farms sharing a river saw salmonella enteritis and deaths after shearing in 2019, possibly due to contaminated water and stress. S. bovismorbificans outbreaks in people have been associated with sprouted seeds and salads, so they are potentially adapted to soil and watery habitats. Some isolates in Australian sheep have also displayed hypervirulence, where the bacteria become more infectious and lethal after passage through an animal.

Salmonella is spread by healthy carrier animals which don't show signs of disease, but shed bacteria (usually intermittently or at low levels). These bacteria go on to infect other animals. Carrier animals can shed Salmonella for months or even years. It is spread by infected materials (e.g. faeces, aborted materials) which can be further spread by

scavenging animals such as seagulls or hawks. Salmonella can survive in the environment for a long period of time (e.g. months to years in ideal conditions like wet paddocks, or dry, shaded areas such as cattle or sheep yards). Conversely, it can be killed in days with freezing or heating.

Strains of Salmonella

Cattle

- Brandenburg (primarily causes abortions)
- Typhimurium (primarily affects the gut)
- Bovismorbificans(primarily affects the gut)

Sheep

- Hindmarsh (primarily affects the gut)
- Brandenburg (primarily causes abortions)

Irrespective of the strain, all types of Salmonella can cause outbreaks and deaths (5% in cattle and sheep).

Outbreaks happen when ingestion of an infective dose of Salmonella occurs at the same time as stress and a change in feed type or quality. Stress can be caused by stock movement or handling, bad weather, or calving/lambing. Usually, Salmonella would already be circulating or being shed at low levels in the flock/herd, but the diet change causes a change in the animals' gut environment (for example, an increase in pH or reduced production of volatile fatty acids). This reduces the number of bacteria that need to be ingested to cause illness and/or increases the number of Salmonella shed by carrier animals.

At the same time, stress, late pregnancy or immune suppression make the animals less able to fight off infection. It is at this time that animals become sick or abort; sick animals shed more Salmonella into the environment,

which can infect other naïve flock/herd mates, perpetuating the outbreak.

Environmental conditions (such as wet weather) may also contribute, as it will favour Salmonella survival in the environment and/or help spread Salmonella around. Removal of aborted material is essential as this a good source of bacteria The most common way Salmonella is introduced to a farm is through healthy looking carrier animals (cattle, sheep etc.).

Higher risk practices include:

- Off-farm grazing
- Intensive feeding
- Purchasing/leasing stock
- Shared boundaries/stock yards

So, reduce risk by:

- Minimise time off feed when yarding/transporting
- Clean and disinfect yards between groups of animals
- Separate stress events
- Control pests and scavengers
- Vaccinate at-risk animals prior to stress events or diet changes
- Double check Magnesium supplementation forms/ rates (cattle)

If a disease outbreak occurs, consult your vet ASAP



For preventative vaccination, give two shots in the first year (sensitizer and booster at least 4 weeks apart). The second shot should be at least 2-3 weeks before the anticipated risk period. An annual booster is required for ongoing protection.

WHEN TO VACCINATE

Dairy farmers: Around drying off **Sheep farmers:** • Gut-affecting (Hindma)

Sheep farmers: • Gut-affecting (Hindmarsh): between weaning and mating

• Abortive (Brandenburg): between rams in/out and scanning

VACCINATION IN THE FACE OF AN OUTBREAK

In the face of an outbreak, vaccination should be done as early as possible to reduce stock losses.

This strategy is not recommended for protection against Salmonella Brandenburg abortions in sheep.

Diagnosed Cattle Salmonella Cases⁴





It's the end of an era, but Chris Crickett has decided it is time to retire from veterinary prac tice after 46 years of life at the coalface. We would like to thank him for all he has added to the clinic, and we will particularly miss his sense of humour, his legendary poems, and his mu-

sical contributions to our parties. I am sure we all have some great stories to tell about Chris, and we would love to hear any you feel are fit to share (!). In the meantime we wish him all the best and hope to see him at social events!

Welcome Sonya and Ben

Taking on Chris's mantle, we are lucky to welcome a new addition to our farm vet team: Ben Rooney. Ben has experience in dairy and mixed veterinary practice, having worked both locally and overseas. After graduating from Massey University in 2011, Ben began his vet career working in dairy practice in Tirau. Keen for an adventure/OE, he then spent a few years working in mixed practice in the UK while taking advantage of the travel opportunities. On returning home to New Zealand, Ben worked in dairy practice in Morrinsville, before joining the team at Cambridge Vets in 2021. A Waikato lad, Ben is well settled in Cambridge with his young family.





Sonya is our new friendly receptionist. Sonya was born and raised in the Waikato and now lives on a lifestyle block between Cambridge and Hamilton. She has worked in a veterinary clinic before leaving to raise her children and has since worked part-time in a Livestock company before joining Cambridge Vets at just after Christmas 2020.







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