

## NEW SALMONELLA STRAIN IN TARANAKI

We have recently claimed the dubious position of being the first clinic in the North Island to diagnose a new cause of abortion storm in heifers: Salmonella Brandenburg.

**Salmonella Brandenburg** has been an issue in the South Island for nearly 30 years after first being diagnosed as a cause of abortions and sickness in ewes in Southland and Otago in 1996. From there it has spread into cattle and has become a cause of heifer abortion storms in late pregnancy.

In abortions, the foetus will be quite rotten and the heifers will often require assistance to get the calves out. The heifers often don't appear that sick to start with but become sicker later.

The more typical, common form of Salmonella causes very sick and scouring cows/calves, generally in spring when animals are under stress.

The good news is the Salmonella vaccine includes Brandenburg and is cheap and effective.

See the other article in this newsletter for further Salmonella background

If you have had slips that might match this please get in touch with the clinic.

## SALMONELLA

Once upon a time, Salmonella was the reason you did not eat your mates chicken kebabs he picked up on sale or, if you were unlucky enough, the reason your vet gave you for the one scouring cow you had. Salmonella is now nearly 4 times more prevalent than in 2013 and on average more likely to affect many in your herd than one off cases. On average an outbreak of the enteric (gut affecting) form of Salmonella will cause 10% of cows to become sick and approximately 1% will die. An outbreak on a 400 cow herd is estimated to cost over \$27,000! Salmonella can also cause huge losses in young stock as well. Nationally in calves, on average 58% of a mob is affected with 27% dying. Taranaki is a real hotspot for Salmonella, being amongst the highest incidence rates of all of NZ for both the common enteric forms.

Salmonella is brought onto the farm by way of 'healthy' carrier animals (cattle or sheep) which are asymptomatic but continue to shed the bacteria into the environment. These animals can shed bacteria for months or even years without detection.

Higher risk practices for the introduction of Salmonella include:

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



The strains of Salmonella which affect cattle and sheep will also infect people. Symptoms of a Salmonella outbreak in humans are as expected with severe vomiting and diarrhoea and abdominal cramps. It's an effective (but very unpleasant) way to lose weight! Milking cows that are shedding Salmonella bacteria is obviously risky for human infection as is drinking raw milk from the vat and being in calf sheds with calves with Salmonella.

There is a silver lining to all this doom and gloom though: vaccination is cheap and effective! The use of *Salvexin+B* helps protect against several forms of Salmonella, reduces shedding so reduces spread between stock and reduces risk of infecting your staff or your family. Unvaccinated animals need two shots 4-6 weeks apart. The best time to vaccinate is at dry off or during the dry period so if you are interested in salmonella vaccination please contact the clinic today!

## MULTIMIN IN NEW-BORN CALVES

Trial work done here in NZ has shown that a single dose of MULTIMIN at birth can cut the chance of disease and death by **OVER 50%**! This means 50% fewer conditions like calf scours, navel ill and pneumonia in the first 35 days of life. We've seen the benefits of this here in Eltham.

Over the last three years, many of our clients have taken up the challenge & the vast majority saw a reduction in calf disease and are very keen to continue using Multimin on new-born calves.

### What is MULTIMIN?

Multimin is a subcutaneous injection which is given on day 1 when the calf reaches the shed. It contains several trace elements which help to boost the immune system, so the calf is able to fight off any challenges faster and more effectively.

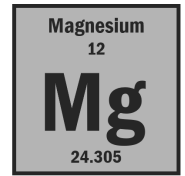
At around 80 cents per calf for an injection that seems like a pretty smart investment.

## TRANSITION MANAGEMENT BASICS

Many of you will have your transition period plan well practiced. In general, we find that you lot (farmers) have gotten pretty good at keeping the number of down cows low compared to the old days. It never hurts to go over the basics however:

### Magnesium

Cows need to be given between 15 grams (for little Jerseys) to 20 grams (for large Friesians) of elemental magnesium daily from two to three weeks before calving till around December, possibly longer.



Mag oxide is 50% elemental magnesium. Magnesium chloride and magnesium sulphate are both roughly 10% elemental magnesium. You can get magnesium into your cows in a variety of ways. The most common methods are dusting mag oxide onto pasture, putting mag sulfate or chloride into the water system, or getting mag added to in-shed feed or put in a mixer/silage wagon.

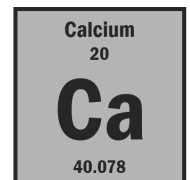
If you are dusting mag oxide onto pasture breaks you need to double or triple the “down the throat” quantity. If you want the cow to have 20 grams of elemental magnesium, that would be 40 grams of mag oxide per cow per day down the throat, times that by 2 to 3 and we get 80 to 120 grams per cow per day. Many people make it easy and work on 100 grams per cow per day.

Only mag chloride or mag sulphate can be put through the doseatron. You can only really use a maximum of 60 grams per cow per day of either otherwise the water starts to taste yuck and the cows wont drink as much. Apparently, mag sulphate tastes nicer than mag chloride and may be more effective at preventing down cows.

A good idea is to supplement magnesium using a two-pronged approach. For example, if you needed 20 grams elemental mag per day then you could put 50 grams of mag sulphate per cow per day through the dosatron (5 grams elemental mag) plus 100 grams of mag oxide dusted on a pasture (around 16 grams of elemental mag). Generally, it's better to over supplement **a bit** than to under supplement.

### Calcium

Hopefully we all know not to feed calcium to cows before they calve. Once they have calved, all cows should be given between 100 and 300 grams of lime flour (calcium carbonate) during the colostrum period. 100 grams per cow per day should be enough for most farms but if you have high producing cows or are using low calcium feeds, such as maize silage or cereal grains, then you may need more. Similarly, if you are a high producing farm or usings low calcium feeds you may need to use lime flour for longer than just the colostrum period.



### DCAD

Finally, many will have heard of DCAD (dietary anion cation difference) and that lowering it will help reduce the risk of down cows. While this is true it is very difficult to achieve a DCAD low enough to be worth bothering with for the vast bulk of our farms so keep it simple and focus on feeding, magnesium and calcium.

Give us a call if you are getting too many down or wobbly cows, more than about 3% of the whole herd is a good “trigger level” at which to do something.

## EARLY LACTATION MASTITIS



Calving is upon us and one of the biggest concerns for cow health in early lactation would be mastitis. It's worth a reminder that we offer milk culture in clinic to help identify the causes of mastitis on your farm, and that your treatment protocols are correct. So BEFORE giving a treatment to some of your early mastitis cases, take a clean milk sample and submit it to the clinic so we can identify the bacteria involved. If you can't deliver it on the day of collection, it can be frozen for culture later. Remember to RECORD

the cow, quarter, and date on vial, STRIP the quarter a few times and CLEAN the teat-end thoroughly with wipes before collecting into a container. (We have sterile pottles available in the clinic).

For samples delivered before 11am, we should have results for you by the afternoon of the next day. We usually can't provide this service over the weekend so if you submit a sample on Friday it will usually be frozen for culture the following Monday.

Anti-inflammatories should be given at the same time as initial treatment; they reduce quarter swelling and stimulate appetite in the affected cow.

Management decisions may be different depending on the bug involved. Bacteria like Staph aureus tend to be difficult to cure and often warrant an extended treatment period. Don't leave it until the cow is on her second course of antibiotics before sampling, take a milk sample before starting treatment!