VETS ON ALABAMA DAIRY NEWS

May 2014

Drying off is now well under way, with most farmers now having discussed with us their Dry Cow Treatment requirements as part of a Dry Cow consult. Don't forget about vaccinating your whole herd for Leptospirosis – Now is the time to booster your herd and also the time to bring your heifer calves into line with the herd by giving them their boosters now. Please discuss this with one of our vets, if you have any questions or call the clinic to order your vaccine. Leptosheild™ is on hand at the clinic – please contact one of our support staff to let us know your requirements.

Trace Element Testing

Late Autumn is a great time to check the trace element status of cows, heifers and calves. Levels of trace elements are known to drop significantly over the winter months and this is also often the most difficult time to provide a daily trace element supplement. Testing at this time of year enables us to check for current deficiencies which may be impacting on production, calculate whether stored levels are sufficient to meet demand over the winter, and also to assess whether or not your farm supplementation program is effective. Copper, selenium, iodine and B12 are the key minerals we test for routinely.

Copper is important in several enzyme systems involved in energy metabolism and collagen production, so is important for growth and calf health as well as production and reproductive function in adults. Soil copper levels are of little use in predicting the copper status of animals as factors such as high iron, sulphur or molybdenum levels in the soil reduce copper absorption from the gut.

Selenium is a key antioxidant in the body, acting to mop up the free radicals produced during day-to-day functioning. It is also vital for immune system function, as well as being a part of many other enzyme systems in the body. Deficiency can cause reduced milk production and fertility, sub-clinical mastitis, retained foetal membranes, as well as ill-thrift in young stock

Iodine is important for energy production and metabolism, therefore low levels can limit production and reduce fertility.

B12 is essential for energy production and cell maturation. In general, rapidly growing animals are more susceptible to deficiency, but pregnant animals are also at risk, especially when they are young. Deficiency often causes weight loss, poor appetite and a rough coat.

Testing

Blood samples are useful for assessing both current and historical selenium status, giving us an idea of whether supplementation has been adequate over the past 3-4 months.

As most of the copper in the body is stored in the liver, liver biopsies from live animals are the only way to get an accurate assessment of the amount of copper available in the body. As copper intake is lowest over winter, this also gives us an idea of whether levels are sufficient to last over the winter. Liver biopsies are also the best way of assessing

B12 status. The procedure is performed under a local anaesthetic, takes only a few minutes per cow, and is generally very well tolerated by the animals.

Liver biopsies from cull cattle (Optigrow) can also be used, but as these animals are not truly representative of the animals in the herd (ie not pregnant, old, sick), the results obtained are much less accurate.

Supplementation

There are various forms of supplementation available, including boluses, long and short acting injections, daily water supplementation and pasture application. The best method will depend on the time of year and class of stock you are treating, as well as the level of supplementation required, so you are best to discuss your requirements with one of the vets.

Rotovirus Vaccination

If there is a disease that is seen in the spring that we believe we could do more to prevent it would be calf scours.

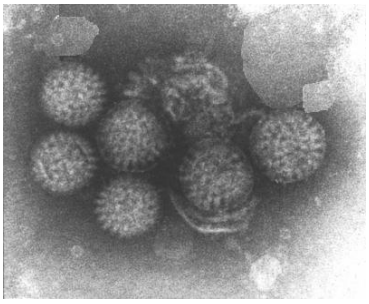
It is common and often carries over from year to year and can affect even the most careful farmers. It is expensive to treat, can affect large numbers, fatalities can be high and the growth rate of surviving calves is likely to be affected. This is without considering the stress of working through an outbreak at a very busy time of the year.

Source: nadis.org.uk

Unfortunately "damage control" is all you can do in the middle of an outbreak, so it makes sense to focus on prevention. Good hygiene and facilities will help to limit the number of bugs calves are exposed to. It is however just as important that calves have sufficient immunity to cope with the bugs they do encounter.

The most important factor in calf immunity is colostrum. Calves must get 2 – 3.5 litres from the first two milkings, within 6-12 hours of birth to maximise their intake of preventative antibodies. If they miss out or the quantity is low, they will have little chance of fighting off infection.

Vaccinating the herd with ROTOVAC CORONA® or SCOURGUARD® vaccine stimulates the cow to produce extra antibodies to Rotovirus, Coronavirus and Ecoli. These antibodies then pass into the colostrum at a much higher level than in unvaccinated cows. It is still of course critical that calves get enough colostrum at the right time to maximise their protection.



A single 2ml dose of ROTOVEC CORONA® vaccine to the herd 3 - 12 weeks before the start of calving will increase levels of antibodies to Rotovirus, Coronavirus and E.Coli in the colostrum of cows calving in the first 9 weeks.

SCOURGUARD® 4K vaccine requires two x 2ml doses, 3 weeks apart. The second dose should be administered 2 – 12 weeks pre calving. This vaccine can also be given as an annual booster vaccination to animals vaccinated with ROTOVEC CORONA vaccine in the previous year.

Both vaccines are efficacious, however from an economic perspective, we are suggesting to use Rotovec Corona® in your heifers then you have a choice of vaccine for the annual booster vaccination as there is some difference in the cost of the two different vaccines.

In conjunction with good hygiene and colostrum management, vaccinating will increase the protection your calves will have against the major causes of scours.

Talk to us about vaccinating to maximise your calf health and your income, while reducing the stress on you and your team.

Abortions

Abortions in cattle can result from a wide range of causes. These include metabolic or hormonal abnormalities, nutritional deficiencies, infectious processes or toxicities. Often, no exact cause can be identified.
Most often, abortions occur sporadically. If cows were pregnancy tested late after mating (at 12-24 weeks) up to 2% abortion rate can be considered acceptable. Looking at it from a different angle, in a herd of 500 cows a total of up to 10 pregnancy losses from the fifth month onward could be considered normal. If you are concerned that abortions on your farm may be occurring at a higher rate, ask your veterinarian for advice.

Most common causes of abortions:

- **Neospora**
- **BVD**
- **Leptospirosis**
- Ingestion of branches or needles of **Macrocarpa** and other pine tree needles (including Pinus *radiata* and Pinus *ponderosa*)
- **Fungal abortion** from poorly made or preserved silage
- **Nitrate poisoning**

Common signs of abortion:

- **Membranes hanging from the cow's vulva**
- **Cow passing dead foetus**
- Return to heat or a vaginal discharge
- Failure to calve around expected date

Prevention:

- Make sure pregnant cows cannot access to **macrocarpa** or pine.
- Make sure herd **vaccination against Leptospirosis is up to date**. Vets on Alabama can assist with vaccinations if you don't want to deal with the lepto vaccines.
- Be **proactive with BVD monitoring and control**. Check BVD status and vaccinate for BVD if introducing animals of unknown status. Don’t introduce animals of unknown BVD status to a pregnant group.
- Do not feed moulding supplements, **it is not worth it!!!**
- Bulls may carry diseases that cause abortions – including BVD and Lepto. Have your bulls fertility and disease tested before next season.
- Check for sufficient levels of trace elements, especially selenium and iodine (deficiencies lead to early embryonic loss and still births, respectively).

When abortions are occurring:

- Aim to reach a diagnosis – find out what the “bug” is, how it infected the foetus, and how it could be avoided in the future.
- Isolate the animals that have aborted – they are a possible source of infection.
- Pick up membranes and foetuses from the paddock, place them in a bag and bury – this will remove a potential source of infection from the paddock. Don't let the dogs to get them, this is a major risk for spreading Neospora.

- Avoid soil contamination of feed stuff – for example the sides of the silage heap. Acidic soil can harbour Listeria. Muddy, polluted supplement could contain salmonella and E coli. Food and water offered to the cows should be free of contamination.
- Reduce concentration of stock (stocking rate) and reduce stress.
- Ensure paddocks are safe for grazing. eg. Nitrate levels, macrocarpa exposure.

A diagnosis requires maternal blood tests, fresh membranes and/or fresh foetus (preferably multiple samples). Normal animals are often also tested to compare blood titres.

Calf & Heifer Weights

Heifer's body weights at mating and calving are major factors affecting the reproductive performance of replacements. Calves and heifers should be reared with the aim of achieving adequate body weight targets, otherwise the first calving can happen later than desired and the weight at calving can be lower. This will have detrimental effects on fertility in the following season, as those first calving cows will still need to do some growth catch-up during the following mating season. Well grown heifers, when compared to poorly grown ones, will generally produce much more milk in their first lactation, are less likely to be bullied by mature cows, and will usually survive longer in the milking herd.

Weighing, **setting live-weight targets** together with **assessing the calving pattern of our first clavers** will indicate how well the heifers are likely to perform reproductively.

How often should heifers be weighed? Ideally **every 3 months** (even more if we want to be more accurate). Weigh the heifers around the same time of day, preferably in the morning, or let them stand 2 hours to minimise effect of gut fill. **Remember that the eye can be very inaccurate – always weigh your animals.**

Vets on Alabama offer a calf and heifer weighing service – Please call the clinic for enquiries

If the average weight is below target, we should take action to improve nutrition (eg. split mobs and preferential feeding of light heifers) and ensure good parasite control.

Breed	Average Mature Lwt kg [1]	Age in months				
		3	6	9	15	22
		% of mature liveweight				
		20%	30%	40%	60%	90%
Jersey	350	70	105	140	210	315
Jersey	400	80	120	160	240	360
J x F	450	90	135	180	270	405
Friesian	500	100	150	200	300	450
Friesian	550	110	165	220	330	495

Source: DairyNZ Farmfact 3-22 liveweights for young stock

Some Points to Remember about your young stock:

- **It costs $1433.00 from birth date to cups on**
- **23% of 2009 born calves did not calve a second time in 2012**
- **15% of dairy heifers do not record a second calving**
- **35% of dairy heifers do not record a third calving**
- **73% of 22 month olds in NZ are below their liveweight target by more than 5%**
- **The eye is a very inaccurate measure.**
- **Weighing allows you to manage lighter ones well.**

Data: LIC

A note on Ostertagiasis and calf growth

There are two disease forms of ostertagiasis, Type I and Type II. Type I disease occurs in calves in their first grazing season when the ingested larvae mature in the abomasum. Type II disease occurs in the 9-12 month age group due to resumed development of larvae that have undergone arrested development, or hypobiosis. **Hypobiosis happens now, from early autumn to late winter - spring. This is the time to treat your calves.**

Dietary energy and protein, which in a healthy calf would normally be used for growth, are used in a calf with ostergiasis to replace proteins lost in the intestine. Protein loss in the intestine will further lead to diarrhoea. The result is unwanted weight loss, with severe infections even resulting in death.

How do we control osteragiasis? We should avoid overstocking, use wise pasture management to avoid the accumulation of infective larvae on herbage, and treat calves regularly with an anthelmintic known to be effective against the inhibited fourth larvae stage.

Vets on Alabama can help you choose the right product and advise you on the best time to use it

New Vets

Dr. Tal Schneider

Tal is one of our more recent additions to Vets on Alabama. For the past two and half years Tal practiced as a mixed animal veterinarian in Canterbury, working mostly with dairy herds. Originally from Israel; Tal graduated from the University of Pretoria in South Africa in 2010 with a degree in Veterinary Science. He is passionate about travelling, meeting new people and exploring new places. Tal lives in Seddon with his wife Yael, baby daughter, dog, cat and chicken. We welcome Tal to our team of production animal veterinarians.

Dr. Peter Howard – August 2014

Vets on Alabama will welcome Dr. Peter Howard to our Production Animal team in early August. Peter brings a wealth of dairy knowledge to the practice. He has been working in Takaka for the past 7 years. Peter will be mainly based in the Rai Valley which will increase our veterinary presence in the Rai Valley, Canvastown, Havelock and Linkwater.

Winter Dairy Seminar

Vets on Alabama in conjunction with Merial Ancare and New Zealand Veterinary Pathology will be running a winter evening seminar at the Slip Inn in Havelock.

The date is yet to be confirmed but is likely to be late June or early July.

More details on this will be sent to you closer to the time and once a date is confirmed.

Drenching Your Cows – Don't Go Past Eprinex® or Genesis® Pour On!

Until June 30th or while stocks last you can take advantage of the offers below from Vets On Alabama in conjunction with Merial Ancare

This offer equates to: (GST Inclusive)

Genesis® - $2.28 / Cow (@500kg)

Eprinex® - $5.30 / Cow (@500kg)

VETS on ALABAMA

165 Alabama Road, Blenheim

Phone: 578 6965 Fax: 578 6960

Email: vets@alabamaroadvet.co.nz