

The magazine of Cambridge Vets *treating all animals large and small*

July 2021

Spring

As calving gets underway, it's pretty exciting to see your future herd hit the ground. Getting the most out of these carefully bred young stock starts at birth, so here are some tips to help you and them survive and thrive in the rush of spring.

1. Are you ready for calves?

Make sure your calf shed will meet calves' shelter, bedding, and water requirements. Calf sheds need to be dry, weather proof and well ventilated, as well as being regularly disinfected. The calf trailer should also be kept clean, and navels should be sprayed with iodine. Pens should have solid partitions between them, with an isolation pen for sick animals, and a double disinfection system for boots - a scrub bucket with brush to get rid of muck first, then a disinfectant trough.

2. Colostrum: Liquid Gold

A calf is born with a non-developed immune system, absorbing antibodies from colostrum is what kick starts it. Good colostrum management requires 3 Q's: Quality, Quantity and Quickly!

- Colostrum from the first milking is the highest quality and should be fed to newborns. Ideally, use a Brix refractometer to measure the protein concentration and preferentially select colostrum reading 22+
- Calves need 4-6 litres of colostrum (at least 10% of their body weight) in the first day. A newborn calf only hold 1.5-2 litres in their stomach, so the target is 2 feeds within the first 12 hours
- Absorption of all the good antibodies is best in the first 6-12 hours of life. Calves that don't receive enough colostrum early enough are more prone to disease and death.
- In Addition, the cleanliness of the colostrum collection vessel, storage vat and feeders must be clean. Or the bacteria will interfere with the antibodies. It may even be worth cleaning the teats of the cows before collecting colostrum, if dirty.

3. Healthy calves make healthy cows

Attentive calf health monitoring and calf shed sanitation will help to reduce illness in your calves, which will help them to put their energy into growing rather than fighting off bugs. Ensure your staff know how to spot and treat common illnesses to help reduce the number of sick calves you have this year. Remember to record everything so calf treatment plans are carried out correctly.

4. Monitor yearlings

Not to be forgotten about are your yearling heifers. This time of the year, we often see them dip below the guideline weight. While a small dip can be okay, falling more than 10% below the guideline often means they struggle to catch back up before mating. Puberty is driven by body weight, so we want our yearlings meeting targets to give them the best chance at mating. The live weight target is 60% at 15 months of age (mating start date). Using MINDA weights is a good way of monitoring the growth of your yearlings.

5. Rising 2-year old heifers

With little time now before the R2 heifers calve, the live weight and body condition score they will calve at is pretty much set. If your heifers are going to be calving below target live weight (90%) and/or body condition score (5.5), make a plan now with how you can minimise the condition loss between calving and mating. Strategies could include putting them on once-a-day for all or part of the time leading up to and through mating, or having them in their own herd so they don't have to compete with older cows.

6. Keeping your records in order

Recording is the key to making informed decisions in the future, whether that be regarding herd improvement or otherwise. Make sure that you have a process in place to record during calving. You will need to record things such as: calving date, calf fate, dam, sex of calf, calf id (tag or temporary ID) and whether there was assistance required during calving.





GOAT DISBUDDING

From May 9th 2021, the Animal Welfare (Care and Procedures) Regulations 2018 (Regulation 57B - Disbudding Goats) require goat kids to be given pain relief authorised by a veterinarian for the purpose of the procedure. The veterinary profession is stipulating that this will involve sedation and non-steroidal anti-inflammatories. This will mean that everyone will have to be organized and everything planned ahead of time. Because disbudding goats has some risks with their thin skulls as well as a time window of 5-10 days old, please contact your vet about how to organize this asap.

Facial Eczema

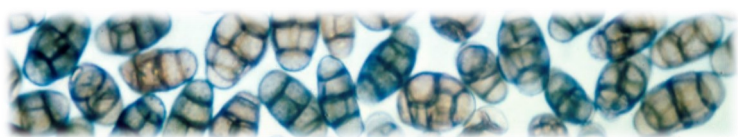
LIVER DAMAGE AND ITS IMPACT ON MILK SOLID PRODUCTION

Emma Cuttance from Te Awamutu led a research project to quantify the link between liver damage from FE in cattle and milk solid production in the same lactation. Over the autumn of 2018 and 2019, likely herds were identified from farm history and spore counts. If a sample of blood tests showed raised GGT levels (consistent with liver damage from *Pithomyces* production of sporidesmin), then the whole herd was bled. Individual MS production was measured within a week or so of the blood tests.

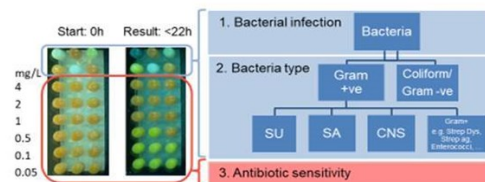
The proportion of a herd with GGT raised above 40 IU/L ranged from 11% to 96%. GGT readings ranged from 3 to 6001.

Statistical modelling showed that an increase of 100 IU/L of GGT was associated with a decrease of 0.011 kg MS/cow/day. GGT levels above 40 led to a daily drop of 6.14 kg per 100 cows. As the liver damage from FE increases, the MS production decreases.

Potential confounding factors of liver fluke and brassica toxicity were ruled out, by history and random pooled blood tests for *Fasciola*.



Mastatest outcomes



NZ Products:

NZP4: Benzylpenicillin, Cloxacillin, Tylosin

NZP2: Benzylpenicillin, Cloxacillin, Lincomycin/Neomycin (Albionic)

Whilst we offer a comprehensive and cheap milk culture service in our own clinic, which would be our first recommendation we understand it is sometimes more practical to have an option on farm. Agri-health have developed the Mastatest machine, which identifies the commonest bacteria causing mastitis, and tests antibiotic sensitivity for 3 products. The results also get mailed to us, so we can help interpret them and advise you on treatment options and disease plans.

Please contact the clinic for more information or go to

<https://agrihealth.co.nz/product/mastatest-lapbox>

Broken Shoulders in Heifers – Massey Research

NZ sees a surprisingly high number of spontaneous broken shoulders in heifers: in 4% of dairy herds and up to ¼ of their heifers affected. The sudden onset severe lameness, with no obvious cause or trauma, is generally observed between late pregnancy and mid-lactation.

Massey University have been researching this puzzling phenomenon by looking at bones from heifers. They have noted several observations:

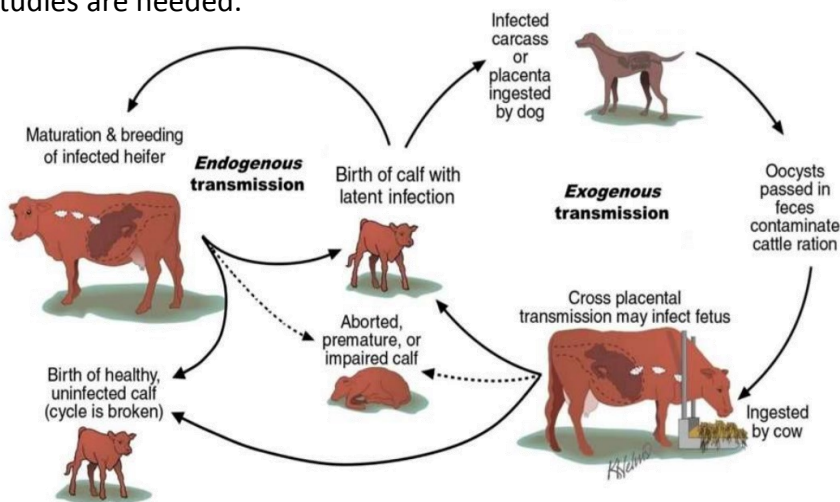
- As liveweight increases, bone size increases but density remains the same. This means if bones don't grow big enough they are at increased risk of fracture
- The humerus is particularly sensitive to changes in liveweight gain because it is subject to forces and strains from the surrounding muscles, which is why it has a distinctive shape and (ideally) greater bone strength
- The humerus grows more in the second year than other bones do, and so is sensitive to changes in the diet for a longer period
- The bones with fractures were weaker because of a smaller size and thinner walls
- They also showed a growth arrest line
- The bone in the neck of the humerus is formed later than the mid-shaft, and so recent changes in nutrition are more likely to affect it
- It seems the event predisposing heifers to fracture is recent, probably the second winter
- The 2nd winter is a crucial time as heifers are pregnant and still growing, and winter pasture may be low quality
- Research is ongoing....

NEOSPOROSIS IN BULLS

Our colleague Cecilia van Velsen is currently the poster person for the New Zealand Veterinary Journal and Massey's Master of Veterinary Medicine course. As part of this, she has written a very thorough review on Neospora in bulls.

Below is my quick summary of her opus:

Neospora caninum is a protozoan parasite that can cause abortions, birth of infected calves, and reduced milk production in cattle. It can be transmitted through vertical transmission (from cow to calf through the placenta) or through horizontal transmission between animals. While it is well established that horizontal transmission from dogs to cattle occurs, it is not clear whether transmission may occur between cows and bulls during mating. Transmission via infected semen of seropositive bulls was suggested when *N. caninum* DNA was found in bull semen. However, after an exhaustive literature review, Cecilia elucidated that the semen of bulls naturally infected with *N. caninum* does not contain the necessary intrauterine dose of tachyzoites to cause persistent seroconversion in a cow or heifer. So it seems unlikely that venereal transmission can occur. Nevertheless neosporosis in bulls may influence semen quality and production. Semen concentration, viability, and motility appeared significantly decreased in *N. caninum*-seropositive bulls compared to seronegative bulls. In addition thyroid hormone concentrations are lower in positive bulls, and it is possible that this may affect testicular development, but further studies are needed.



Ag. Day Lambs and Kids

It will soon be time for our rural children to experience the joys and learning opportunities of rearing a lamb or kid for School Ag Day. Cambridge Vets is happy to support the local schools for this important event in the calendar, and we have some great tips / resources you can collect from the clinic or in the Information section of our website www.cambridgevets.co.nz. Make sure the animal you select is bright and happy with a dry naval, clear eyes and normal poos. The pen should be warm and dry with ventilation but no draughts, and water available. Diarrhoea or scours is the main problem we see. Consistency of feeding is critical. We supply electrolytes for rehydration therapy, or you can ask one of our team for specific advice. 5 in 1 vaccinations is important for preventing clostridial deaths (e.g. tetnus, pulpy kidney) - we supply these free to Ag. Day animals. Two shots are needed a month apart. Kid goats will need dehorning under sedative a 5—12 days old; please contact the clinic if you need this done. Remember to wash hands after handling animals - we don't want kids getting sick!

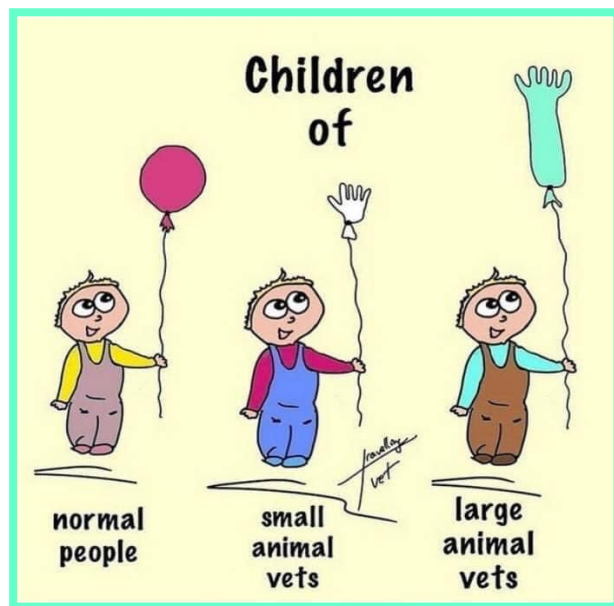
DOING DOUBLE PG SHOTS IN A CIDR / CUEMATE PROGRAM

Scott McDougall's team from Morrinsville investigated the effect of adding a 2nd dose of PG into a non-cycler program. The advantage to this local study was that it is specific to an NZ pasture-based dairy system. Nine spring-calving herds were chosen and cows selected which had not been detected in heat before PSM.

Cows were either given the standard ovsync plus progesterone program where PG is given at device removal, or a similar program but with a repeat shot of PG the following day. The cows were inseminated at fixed time or to detected oestrus.

Their results showed that the double PG group had:

- Increased conception rate to 1st service (45.3% vs. 41.1%)
- Increased 3 week incalf rate (53.4% vs. 49.2%)
- Increased 6 week in calf rate (67.2% vs 63.5%)
- Final pregnancy rate did not differ



Golf Day 2021

Finally we had a golf day, not disrupted by bad weather or global pandemics!

Some of the teams really got into the spirit of the day with their costumes - The Braveheart Clan triumphed on the day, taking home the Alan Bremner Memorial Trophy.

(not sure what they had under their kilts?)

A big thanks to Kelvin for organising the whole day. Not forgetting all of his helpers and those who came along and made this such an enjoyable day. See you in 2022!



2021



Spring Seminar

7th of July saw another Cambridge Vets Spring Seminar! It was a great opportunity to have a refresher on calvings, metabolics, mastitis and calf rearing, and quite a social occasion too! Julie and Peter enjoyed presenting, and the group of farmers were great at sharing their experience and wisdom. The free lunch went down pretty well, and was probably the big draw card to be honest!

GOSSIP

We had a lovely re-union in June to celebrate 40 years of Cambridge Vets, 75 years of Cambridge Vet Club, and to farewell Chris Pyke, Chris Crickett and Richard Willis. It was great catching up with previous colleagues, and to say thanks and all the very best to CP and CC after 40 years of service.



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Spring Checklist

At Cambridge Vets we have a comprehensive range of what we think are the best products in the market place, at competitive prices and with professional advice to ensure you get through this season without a hitch.

Calving gear

- Ropes
- Chains
- Handles
- Disinfectant
- Lube
- Gloves
- Penicillin
- Oxytocin



Metabolics

- Calcium
- Magnesium
- Oral treatments
- Ketol
- MPG
- Starter Drench
- Rumenox



Mastitis Treatment

- Intramammary
- Injectable
- Bulk Magnesium
- Molasses
- Calcium
- Salt
- Eprinex/Dectomax/Genesis/Drench
- Teatspray
- Udder Cream
- Hoof gear



Calves

- Iodine spray
- Electrolytes
- Tags
- Feeders
- Shed disinfectant

