ANIMAL WELFARE - CALVES

As calving season looms, just a reminder of the requirements for Loading Facilities and Calf selection for transport:

**Loading facilities must** -
- Allow calves to walk on and off stock transport vehicles
- Minimise the risk of a calf injuring themselves, becoming distressed or falling off
- Calves must have suitable shelter at all stages of a journey including before and during loading

**Calves selected for transport must** –
- Be at least 4 days old
- Have a dry, shrivelled navel
- Have firm, worn hooves
- Be able to stand up, walk and bear weight evenly on all 4 limbs
- Be able to protect themselves from being trampled or injured by other calves
- Be free of injury and birth defects (e.g. blindness, contracted tendons) that would mean they cannot withstand the journey
- Be free from scours or other signs of disease that would mean they cannot withstand the journey
- Calves should be well fed with bright eyes and ears up

**BCS and Tails**

It is good practice to BCS your herd to ensure they are on target for calving, and this often provides a good opportunity to score their tails too. This is a significant welfare concern because broken tails often indicates excessive force by a person. A baseline assessment in the dry and then a repeat check during lactation can reassure you or alert you to the need for a re-training session with staff on how to move cattle.

A Welfarm analysis showed that all farms assessed had some cows with deviated tails, ranging from 2% to 13% depending on year and region, with an average of 10%.

I would be asking questions if I saw a herd with 1 in 10 cows with a broken tail!
Just a reminder that NZ is still seeing human cases of leptospirosis, and Salmonella is on the increase. Both are pretty hard hitting diseases we all want to avoid. The dry period is the ideal time to booster vaccinate your herd and young stock for these diseases to protect the health of your herd and your people. We can also vaccinate against rotavirus scours if you have seen that as a problem.

From June 2024, all farms will need to have a Farm Animal Wellbeing Plan in place after consultation with their vet.

It has been a year of high worm burden after a warm, wet summer and autumn. However, there is a lot of drench resistance being reported in the country, so it is important to approach parasite control from a whole farm and animal health perspective:

- **Type of stock** – mature sheep and cattle generally have natural immunity to worms and often do not need drenching unless under pressure. Goats are an exception to this as they are browsers not grazers. Youngstock need closer monitoring, management or drenching.
- **Frequency of drenching** – does it even need doing? Taking a good number of samples (8-12) and doing Faecal Egg Counts (we do this in our clinic lab) will tell you if there is a significant worm burden. If not, you can save hassle and money by delaying drenching.
- **Efficacy of drenching** – ensure you are using the right dose rate (dose to the heavy animals in the mob), and that the gun is delivering correctly
- **Efficacy of drench** – If we repeat the FECs 7-10 days after drenching, we can check the egg count has dropped. If the reduction is <95% we would be concerned about resistance and should instigate a product trial.
- **Grazing pressure** – the lower in the sward stock are forced to graze, the more worm eggs they will pick up
- **Grazing mixed species of stock, or different ages of stock** will reduce the worm burden in the pasture.
- **Rotation of paddocks** – if youngstock are grazing the same paddocks constantly, the worm burden will increase exponentially. It is better to rotate paddocks
- **Crops** have a lower risk of worm burden and can be a useful grazing option in the summer
- **Products** – oral drenches are preferred for efficacy, but injections are more practical for large animals. Combination products with 2 or 3 ingredients are less associated with resistance (benzimidazoles, abamectins, levamisole are the 3 core actives). Novel drenches (Zolvix for sheep) may be used as a quarantine or exit drench, but must not be over-used or resistance will develop.
- **Timing** – for sheep, there is an immune suppression at lambing that makes ewes more prone to worms. However, long-acting products such as a bolus will be more prone to developing resistance due to the the long tail of sub-optimal concentration. It is probably best just to drench at-risk stock (under target weight, hoggets).
- **Seasonality** – barbers pole is an issue in late summer and autumn in lambs. Because this has a very short life cycle of down to 2 weeks, choosing a product with extended cover is often necessary at this time of year
- **Refugia** – A good policy for minimizing drench resistance is simply not to drench the best animals e.g. draught off the heaviest 10% of the mob.
- **Overall health** – optimizing this by good nutrition / body condition, and addressing any mineral deficiencies, will help animals’ natural resistance

Resistance is a growing issue, where a drench reduces worm egg count by <95%. Reducing unnecessary drenching and focusing on good practices will minimize this. Any concern of resistance can be checked with a drench trial for specific ingredients.
Whilst it is undoubtedly important that cows are well fed with any mineral deficiencies addressed in their diet, it is a bit more controversial how much impact diet has on lameness compared to physical trauma. An American study (Wynands, Journal of Dairy Science) looked at high ketone (BOHB) levels (as an indicator of negative energy balance) and sole ulcer or white line foot lesions (SUWL). This study had the advantage of checking for previous lesions, which can predispose to subsequent lameness, at a drying-off foot trim, and excluded any cows with SUWL. Cows were tested for BOHB at days 3 and 16 post-calving, and were foot trimmed between 21 - 150 days in milk.

No causal link was found between high ketones and SUWL. However, this may not be a perfect proxy for fat mobilization, and the digital cushion is only 30% fat. Nonetheless, inflammation, hormone changes, and environmental trauma may have a greater impact.

Crystal ball gazing is fraught with risk, but Iodine may be in short supply this year. The main source in Chile has ceased production, I have read, and there may be stockpiling in the Ukraine and Russia. This may affect the availability and price of iodine for dressing navels as we come into spring. Products with an iodine concentration <7% are less effective in drying and disinfecting navels. However, although dressing navels is important, many cases of joint ill or bacteraemia actually originate via the tonsils or guts. So it is even more critical to avoid lambing in a wet, mucky environment and maximize underlying health status.

- Ensure a good supply of colostrum to protect the lamb with immunoglobulins and energy
- Manage body condition and nutrition of pregnant ewes for optimal results
- Provide a clean, dry area for lambing
- We recommend using iodine or if unavailable then chlorhexidine (as a 1:1 mix of 4% chlorhexidine with alcohol). Tetracycline sprays do not dry the navel and are an unnecessary use of antibiotics.

The research continues on spontaneous broken shoulders in heifers! We have not seen any for a while now, but it is interesting to read the updated theories.

A recent study (Wehrle-Martinez) compared samples from broken humeri (humeruses?) with normal animals and discovered there was less density of collagen but more cross-linking between molecules. This suggests that the bones are weaker with less collagen laid down due to a nutritional insufficiency probably in the first summer when the skeleton is developing. In an effort to try and compensate for this, the body initiates cross-linking.

This underlines how important it is to monitor and adapt a nutrition budget with youngstock / heifers

The other controversy is how much of an impact copper levels have on the predisposition to fractures. The same study found that heifers with fractures had lower liver copper reserves but normal blood levels ie no evidence of copper deficiency but a suggestion that the animals with weaker bones were using the liver copper to help strengthen the bone, which is why we often see lower liver coppers.

LAMENESS AND NUTRITION
Last year, MPI established a new team specifically tasked with addressing the threat of AMR. It has been shown that antimicrobial resistance in bacteria can cross between species (e.g. humans, pigs and cows on the same farm). So resistance developing in farm animals is potentially a threat to human health, as well as making treatment difficult on farm. The AMR team will be undertaking surveillance programs, and also auditing the supply of antimicrobials including vets and farmers.

What can we do?
- Implement antimicrobial stewardship programs. The mainstay of this would be to;
- Ensure we have excellent preventative health programs to minimize the need for antibiotics
- Have good, documented animal husbandry practices
- Only use antibiotics when necessary (e.g. dry off low SCC cows with teat sealant)
- Ensure the selection and course of treatment is appropriate (e.g. minimal use of Red Light drugs)
- Monitor for resistance (culture and sensitivity)

Examples of how we can help would include:
- A good Animal Health Plan and Protocols
- RVM Authorization discussion including treatment protocols
- Dairy Antibiogram
- Milk cultures to assess if antimicrobial treatment is even needed (no growth or mild gram negative infections may resolve with anti-inflammatories).

MPI’s AMR group has initiated a reassessment of antimicrobials in animal and horticultural usage to check their usage and with-holding recommendations reflect current understanding and prudent use guidelines. The 1st tranche to be re-assessed included penicillins and cephalosporins, although different types of antibiotics will be reassessed in the future. The main change affecting us is that the recommended dose rate for penicillins has increased to ensure they work against the infections identified on the label. This has meant the with-holding periods have also been extended to limit residue risk. New packaging and labels will reflect this change, so keep an eye out for that.

New recommendations are:
- **Depocillin** – increased dose to 25mg/kg (42ml for 500kg) x 5d with a longer milk WH of 156 hrs for cattle, 35d for sheep, meat WH 4d
- **Intracillin 300** – increased dose to 20mg/kg for cattle (33ml for 500kg) and 25mg/kg for sheep x 3d, with extended WH of 96h for cattle and 35d for sheep, meat WH 10d
- **Intracillin MC** – can be used at 12 or 24hrs depending on milking frequency now, 96h milk WH for 2AD and 120hrs for OAD milking.
- **Betamox** - 72h milk WH (Cows), 35d milk WH (sheep), 14d meat WH
- **Duplocillin LA** – 30mg’kg for 3 treatments 48h apart. Milk WH has increased to 35d, meat WH is now 91d for cattle and 56d for sheep

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**CAMBRIDGE VETERINARY CLUB INCORPORATED**

*Notice of Annual General Meeting*

Notice is hereby given that the Annual General Meeting of the Club will be held on Thursday 13th July 2023

Held at the Cambridge Vet Building corner of Alpha & Empire Street, Cambridge.

Meeting to commence 12.30pm

*All Members Welcome*

Order of Business:
- Adoption of Reports
- Election of Officers
- General Business

Fiona Speake (Secretary)
Spring Checklist
At Cambridge Vets we have a comprehensive range of the best products in the market place, competitive prices and with professional advice to get you through the 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
- Injectables

Bulk Magnesium
- Bulk Magnesium
- Molasses
- Calcium
- Salt
- Drench (Eprinex / Dectomax / Turbo)
- Teatspray
- Udder Cream
- Hoof gear

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