LAMENESS

New research on lameness in dairy cows has shown the importance of preventing the first lifetime lameness incident. Jon Huxley is the new head of the Massey Vet School (another outstanding 1990s graduate from London!) and he brings a wealth of knowledge, research and enthusiasm. He recently outlined a change in our understanding of the progress of lameness. If a cow becomes lame, she grows little spurs on the sole of her toe bone which impacts on the cells below that grow sole horn. So then you get haemorrhage and weak sole which predisposes to lameness and the cycle continues....The good news is that trimming or using cowslips (thus relieving the pressure on those hoof producing cells) has a very beneficial effect.

Other important factors for lameness are the size of the fat pad in the heel (this dissipates force onto the hoof walls, and is linked to BCS) and the thickness of the sole.

What can you do? The importance of track condition, careful use of the backing gate, treating lame cows promptly are still critical. In addition, maintaining BCS will help cushion their feet with the fat pad in the heel. And a new concept to me - Conditioning heifers’ feet by gradually introducing them to walking on concrete before calving.

Nitrate

Got paddocks sown with new, annual rye grass?

Consider testing it for nitrate levels. Fast-growing young grass can hold high levels of nitrate, especially in cloudy weather or paddocks which have had nitrogen fertiliser applied recently. We have a simple kit available in the clinic which will tell us if it is safe, toxic, or needs carefully managed grazing.

Signs of nitrate poisoning are a mob of cows found dead, and more down with grey or brown mucous membranes. If you see this scenario, move the mob off that pasture immediately and ring us. We treat this as a priority emergency and will come to treat them intravenously.

FEI grading is now in place.
The fat component of PKE can vary between 3-10% from load to load, so it is important to be monitoring FEI and PKE use (proportion of diet), and to have a plan for alternative feedstuff if necessary. For example, allocate more pasture/silage to lactating cows and more PKE to drystock (but be careful with springers as PKE is high in phosphorous and can predispose to milk fever). Other factors can have an impact such as total DMI, fodderbeet, breed and stage of lactation.

DairyNZ have a great information sheet: https://www.dairynz.co.nz/feed supplements/palm-kernel-extract-pke

Bloat!

We have seen a few cases of ruminal bloat recently.

Be careful grazing fast growing lush pasture, especially if it has lots of clover. Bloateze can be added to the water or drenched in individual affected cows. Be careful to dilute it first!! Alternatively Rumensin boluses can be administered orally and last for 100 days. If you need to do an emergency bloat stab, remember to go on the left side of the cow behind the ribs, use a knife with a guard to protect your fingers, and just insert and twist the blade (don’t slash!).
**Mycoplasma**

**Situation:** There are currently 37 Infected Properties, with one recently confirmed in Northland.

Coming into mating, biosecurity takes on another level for reduction of risk. By now, disinfection protocols should be routine, with all visitors disinfecting on and off your property. The water needs to be clean, so refresh and add more disinfectant to the boot bucket daily, and provide a brush!

Ensure you do a risk assessment for purchased or leased bulls. Where are they from? Were they reared on the property? Have they serviced other farms? If so, where? Have they or the mob been tested for Mycoplasma? Remember a “Not Detected” result is not a guarantee of not harbouring the bacteria, but there is some assurance if the whole mob has been tested negative.

Increasing the AI period will reduce the number of bulls you need (and any degree of risk they may pose), but this has its own challenges with regards to heat detection and ensuring an optimal submission rate in the first round or 2 of mating.

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**ANTIBIOGRAM**

There is a new version of the Bulk Milk Antiibiogram which will test Strep and Staph with 10 antibiotics for resistance. This is a really good way of monitoring development of antibiotic resistance over time, and for choosing the best (and cheapest) treatment/DCT for your herd. Please contact the clinic for more details.
CIDRs are a great tool for synchronizing oestrus and still the best intervention for non-cyclers. The program gives the best ROI if done early (ie the week before PSM). It is a 10 day program, with the cidr removed and a PG injection after a week. Virgin heifers can be synchronized to optimize AI visits, either with a 9 day CIDR program (and one fixed time AI) or with PG injections (with AI to heat over about 3 days).

Have you Metrichecked your herd yet?
- Cows with endometritis conceive 2-3 weeks later and have 10-20% higher empty rates
- Cows that have had RFMs, difficult calving, milk fever, twins or ketosis are more likely to have endometritis (28% are metricheck positive). However, through sheer number of cows, we will find more metricheck-positive cows in the rest of the herd; 71% of dirty cows are not At Risk.
- Treating metricheck positive cows (irrigating with metriclean) resulted in them conceiving 8 days earlier, with 10% higher 6-week in calf rate and 3.2% higher in calf rate at 84 days.
- Early treatment gives better results than late checking (as later some look clean but actually still have an Infection so are not treated and end up with 7% lower 6 week ICR).

Blood testing pre-mating can highlight deficiencies and reveal the hidden disease of Sub-clinical Ketosis. A standard Lactating Cow Profile on 10 cows measures levels of Magnesium, Selenium, Copper and BOH. This last one is a product of fat breakdown; if levels are high the cows are in a negative energy balance. The ketones produced depress milk production and oestrus. Re-assessing your feed budget or using products such as Rumenox or Rumensin will be warranted.

BCS is a major KPI, and should be monitored regularly to ensure 90% of the herd lose less than 0.5 score between calving and mating. We have qualified vets ready to give your herd an “outside” assessment for you.

Heat Detection
It is widely acknowledged that Heat detection aids such as Kamars can improve accuracy. And now, to reduce pressure on staff, there are a whole battery of new electronic aids for oestrus detection, and the more parameters they measure, the more accurate the model. Activity, rumination, riding, milk production can all be used. BUT. No technology gives a perfect result. A recent study from Ireland analysed acceleration patterns in 3D from neck collars. It detected 87% of heats (confirmed by progesterone levels, ultrasound and observation) which is good but not perfect. However only 72% of alerts were true positives. Human confirmation is still an important part of the picture, so make sure your staff are fully trained in heat detection and motivated to be looking and tail painting.

- Rub marks
- Riding
- Chin resting
- Vocalizing
- Increased Walking
- Bulling strings
- 3 weeks after previous heat display
Drenching Commercial Lambs

While it is critical for health and production that the worm burden is minimized in your lambs, drenching them unnecessarily is not only a waste of money but will actually select for resistant worms. Faecal Egg Counts are a simple assessment of worm burden to see if the mob needs drenching or not. Just drop off some faecal samples to the clinic and we can do the test in house. Another useful variation of this test is to do it just before drenching, and then sample the same lambs 7-10 days after drenching to assess the efficacy of the drench. If there is a reduction of <90% then resistance is becoming an issue and choice of products will need to be discussed. Other ways to reduce resistance include:

- Refugia – don’t drench the top 10% of the mob, so the worms they shed will not be selected for resistance. These worms will generally outperform any with resistance genes, thus diluting their presence on farm.
- Co-grazing with other species
- Rotation of paddocks used for young stock to minimize worm build-up

AG day Lambs

We talked about feeding and rearing kids and lambs in the last Vet Advisor (available from our website). Just a reminder that we will vaccinate Ag Day Lambs and kids free to support our local schools. This is generally done when they are rung, and repeated a month later, to protect against Pulpy Kidney and Tetanus.