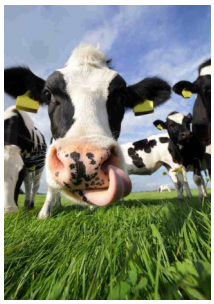
THE LIVESTOCK PARTNERSHIP
SUCCESS THROUGH HEALTH

NEWSLETTER May 2017

Well Spring is definately trying to spring and I am sure I have seen a few of you doing rain dances already!
Megan discusses one possible problem at turnout below; Hypomagnesemia, and a few of the dairies are struggling with low butterfats. It was conventionally thought that high levels of carbohydrates in lush spring grass caused low butterfats, but now it is theorised that fatty acids in grass are absorbed into the blood stream and reduce butterfat production in the udder. The amount of these fatty acids vary with grass species, maturity and conditions, and the only way to combat the issue is to reduce intakes and modify the rumen environment, hence buffer feed.
Claire



Icebergs in your flock (*Sarah*)

I don't mean the frozen water variety! I am referring to the important infectious diseases that if found in your flock in a small number of clinically affected animals will mean there is also a large proportion of the flock subclinically infected. This is how Johnes disease and maedi visna (MV) disease behaves. Johnes disease is not just a disease for cattle keepers to be aware of, it infects sheep, goats, alpacas, rabbits and deer. Although Johnes disease is a bacterial disease, and MV a viral disease they have many similarities in how they infect animals for life and if positives are found many more are likely to become positive within the flock.
Johnes disease is a bacteria passed mainly in infected animals faeces (MAP bacteria) that infects young lambs, lies dormant and undetectable inside for many months/years slowly replicating within the intestinal cells. When the animal enters the 'clinical' or final stages of the disease the intestines become thickened, absorption of all nutrients is impaired and the animal loses weight through malnutrition. Eventually the animal will die. Unfortunately we can only pick up the infected animals with our tests when they are in the final stages of disease, meaning they are likely to have been infecting others in the flock for months or years. Maedi Visna virus is transmitted through milk or direct contact with an infected animal. It is characterized by a long incubation period and, typically symptoms take months or even years to develop – pneumonia, encephalitis (neurological form) mastitis and arthritis. Infection persists for life and infected animals are a constant reservoir of infection which, consequently, permits the virus to persist in the sheep population.
However MV is easier to test for than Johnes and thus the SAC have a blood screening programme for this. Both these diseases can cause a flock to have a population of poor ewes (despite good worming/fluke treatments and on good nutrition), increase in culling rates, and increased incidence of arthritis, premature birth and reduction in conception rates.
So the take home message would be that if you feel your flock is under performing, or you are performing flock checks or barren ewe checks at the end of the breeding season why not add some targeting screening for these diseases? If we find positives in a targeted selection management changes to benefit the whole flocks health and performance could be justified.

Hypomagnesemia in cows and sheep. A Tip of the Iceberg Disease. (*Megan*)

Risk: Spring when there is lush grass which contains high protein; high potassium in grass with no supplementary concentrates being fed or magnesium in the water. Animals which are lactating. Sometimes following a period of cold wet weather which will suppress grass growth and cattle/sheep grass intakes.
Signs: stiff gait/wobbly when walking and will stagger if pushed on to walk faster. Twitching ears, mouth, muscle tremors, nostrils flared, ears pricked, and head held high. Lack of appetite and milk drop, they may appear blind. Later this may progress to fits. You might find an animal dead in the field with evidence of the ground being bashed/raked up around them. Sheep may appear to be walking in circles.
Prevent: top dress concentrates with magnesium and ensure cattle eat it. Put magnesium flakes into the water- ideally in the line so that Mg is in every drop of water rather than the first few litres of water in the trough.
How to investigate it: blood and urine tests to confirm deficiency. Post mortem of any animals whose death cannot be explained.
Supplementation: Magnesium can be supplemented in many forms. However different amounts are required based on what it is fed with. Discuss with us if you're unsure. Top dusting feed with magnesium can make it quite unpalatable. Pasture can be top dusted. Beware that magnesium bullets available to cows will fall well short of the daily requirements for magnesium for dry period and early lactation cows.
Treatment: A bottle of magnesium under the skin or diluted in a bottle of calcium and given very slowly IV. We are of course very happy to do this for you. One clinical case of hypomagnesemia indicates that most or even your whole flock/herd are struggling to get enough magnesium in the diet- Think about supplementation to prevent more cases.

NOTICE BOARD

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SUCCESS THROUGH HEALTH
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Clinical Waste *(Claire)*

Just to clarify that due to lack of collections from PHS we have switched companies that we use for medicine bottle and sharps collections to a local company Agriclin. We can provide the first bin and then when you ring the number on the bin for collection, a new one will be delivered when the old one is taken away. The number is 07796 173348. Any questions please let us know.

Energy status testing through NMR *(Ben)*

Since last year NMR have been offering a new service through the normal milk sampling procedure. When NMR test your milk samples, they shine an infra-red beam of light through the milk, which vibrates and produces a wavelength of 1,060 data points. For many years, they have only been looking at certain points along this wavelength to calculate butterfat, protein and lactose. But research over the last 10 years in Europe has found that the whole wavelength could be used to provide more information about the cow, one of which could be energy status. Cows are designed to cope with going into negative energy status (use of energy exceeds provision of energy from feed intake). They use up a bit of body reserves in early lactation – that's why us mammals have to ability to lay down body fat. If this goes too far then we start to see problems with fresh cow health (uterine disease, LDA, Milk fever retained cleansings), fertility (delayed onset of cycling, poorer preg rates, cystic cows) and lameness (loss of fat cushion in foot leading to sole ulcers). Many of you will use cow-side blood ketone measurements to assess energy status and this can be provide some really useful information. With NMR's new service we can also now monitor energy balance status a bit more usefully across the herd.

I now have a few of our clients registering with this service and we are starting to get to grips with how we can use the information to improve our herd management on certain farms.

- Identifying high-risk individuals: animals in severe negative energy balance could be singled out special attention such as increased concentrate allowance (if safe), propylene glycol drenching, B vitamin supplementation, moving onto once-a-day milking (grazing herds typically) or moving to a group with higher energy provision.
- Identifying animals that are in strong positive energy balance (and wasting your money) : cutting down concentrate, moving to a group with lower energy density
- Monitoring trends in overall herd energy balance: establishing when the 'average' cow in your herd leaves negative energy balance and look at how this changes by month of calving, monitoring response to a change in forage etc.

It's early days for our practical use of this new information but given how important energy status is in dairy cows, we could use every tool that is available to us. After all, if you can't measure it how do you manage it?

Days in milk:	<=60	61-250	>250	Total
Gaining 1kg+ per day	0	0	0	0
+0.25kg to +1kg	0	15	1	16
-0.5kg to +0.25kg	7	140	2	149
-1kg to -0.5kg	16	138	0	154
Animals losing 1kg+	50	46	1	97
Total number of cows:	**73**	**339**	**4**	

An example of one of the reports available to those subscribing to the NMR energy balance service

Artificial Insemination Course *(Claire)*

We are running a full AI course on 10th, 11th and 14th July. The course is practical based and covers from 'tank to cow'. If you are interested please contact Claire on Claire@livestockvets.co.uk.