

Hi all, While writing this Christmas is looming and tiers are changing every day! At the moment we are still in tier 2 but this could change any minute, the M20 is full of trucks and bird flu is rearing its ugly head in Norfolk (more on this later). Enough to get quite sad about, but I have to say coming on to the farm each time brings back a smile, seeing you and your beasts, all still carrying on as normal lifts the spirits!

And the other day I was shown you are never too old to learn when I found out where the word vaccination comes from. I have to admit I was little bit ashamed not knowing it comes from the cows! For those of you that are in the same place as me this is where the word originates from (from Wikipedia):

'The word "vaccine" was created by Edward Jenner. The word comes from the Latin word vacca, meaning cow. A virus that mainly affects cows (Cowpox) was used in the first scientific demonstration that giving a person one virus could protect against a related and more dangerous one.'

Hopefully by the time you read this you have all managed to have a nice Christmas, see out 2020 (yes!!) and vaccination is well on the way!

For those of you who did not know yet Kate, our farm secretary will be leaving us for a bit halfway through January, this time to have a baby herself just before her herd and flock are due to do so too! We wish her well and hope she will return to us soon!! To take over from Kate we have welcomed Sally Lilley in the farm office. Sally has been with Cliffe vets since 2007, working in the small animal reception. But we are pleased to say that 3 months ago she agreed to join the farm team! She is quickly learning about the farm department and is ready to cover Kate's office duties while she is on Maternity leave, with Sandra at her side.



We all wish you a Healthy! Prosperous! And Happy! 2021, Onwards and upwards!
The Farm team



NEW ADDITION TO THE NEWSLETTER QUARTERLY DISEASE REPORT—September—December

Cattle-

- ◆ Several of our autumn calving dairy herds experienced problems with displaced abomasums and sick cows post partum indicating a possible transition cow problem, analysis of NEFA on blood samples showed several high values indicating negative energy balance. Poor transition could be attributable to the summer drought.
- ◆ Pneumonia problems have started to occur in herds in late November and into December with 4 herds reporting issues. Testing in one herd revealed a primary bacterial pneumonia with concurrent BVD infection in a herd which was naïve to BVD but had mixed weaned homebred animals with bought in stores at housing. A control plan is being implemented.
- ◆ Amongst the usual mastitis bacteria *Klebsiella pneumoniae* and *Trueperella pyogenes* were diagnosed. *Klebsiella* often causes acute, toxic disease and is often multi-drug resistant. **We are currently running subsidised mastitis bacteriology with a >50% saving- please contact your herds vet for further information**
- ◆ Johne's disease was diagnosed in 3 herds. In one herd, two cows had recently dropped condition and developed profuse scour. These animals were positive on blood and faecal testing.
- ◆ E.coli scour was diagnosed in a group of calves after 5 died with no response to treatment. E.coli was cultured and found only to be sensitive to the Critically Important Antibiotics (Baytril/Marbox).



Small Ruminants

- ◆ Cobalt and iodine deficiency were diagnosed in 3 flocks all grazing downs pasture. Iodine is an essential trace element in the lead up to tupping and can affect fertility and lamb vigour in late gestation.
- ◆ Listeria was diagnosed in one flock with one animal showing neurological signs. A post mortem examination was conducted and the brain examined confirming Listerial meningitis.
- ◆  Worm counts remained high during the autumn months which has been attributed to the mild and wet weather. Farms which have used yellow/clear drenches over the summer months should consider using an orange (Zolvix) or purple (Startec) wormer as a "knock out" drench late season.
- ◆  Fluke infection was suspected in a group of 45 Romney lambs grazing land in West Sussex which had previously been on high risk pasture. Laboratory testing is pending. But the liver appeared enlarged and the animal pale on post mortem exam.



PERINATAL SURVIVAL, METABOLIC PROFILE in SHEEP

The Sheep Health and Welfare Group Conference took place on 24th November and, despite being a virtual affair this year was an excellent day of information exchange and discussion.

Alex Corbishley, from the Royal (Dick) Vet School in Edinburgh, presented some very interesting findings from his study on lamb mortality. He explored farmers views on lamb mortality and looked at some of the risk factors and predictors for perinatal losses.

He studied 111 flocks with a range of sizes across a broad range of farm types - lowland, upland and hill flocks. He also blood-sampled ewes and lambs on a subsection of these farms. The average scanning percentage was 165% with the middle 50% achieving between 147-188%. **The average mortality from birth to 21 days on all farms was 10.4% and of the losses, 90% were in the first 7 days. The best 25% of farms had losses to 21 days of 6% or lower.**

Unbelievably he found that over a third (64%) of farms had kept no previous record of their perinatal losses. This is the time of the production cycle when most losses occur on sheep farms, and therefore where most improvements can be made. It is vital that at least basic records of losses are kept so problems can be identified and improvements made. There were a variety of factors that affected farmers wish to record and improve, including motivation, confidence, cultural stigma, and a reluctance to discuss problems.

Some risk factors that he identified may not have come as a surprise, such as outdoor flocks having more variable lamb losses due to weather and local conditions. However, having a large flock or having fewer staff per ewe did not affect lamb mortality. So, some large flocks with low staff availability are managing to achieve low lamb losses.

There was also no strong association between any management practices and lamb survival. Whilst the effect size of any one intervention on a single farm could be substantial, when averaged across all the farms, the effect size of any single intervention was minimal. The take home message is that for most farms, doing any one thing is unlikely to make a big difference and so an integrated approach to a variety of management practices that are likely to affect neonatal survival (sum of marginal gains) is required.

Relating to their perception of lamb losses on their own farms, farmers were asked to answer on a scale of 0-6, whether they agreed with the statement "*my lamb mortality is BETTER than the average farm*". A score of zero indicated that they disagreed strongly, ie were convinced they were worse; a score of six, convinced they were better. Farmer perception of their lamb mortality correlated very well with the actual performance, **except** for those who were convinced that they were above average (score 6), where only half of them were actually performing better than the average farm!

One of the main factors influencing lamb survival from scanning to 24hrs of was number of lambs scanned. As expected, triplet survival was lower. 32% of triplet carrying ewes lost one or more lambs, compared with only 9% of twins.

Other factors looked at were ewe age and body condition score, and some metabolic parameters associated with nutrition. He demonstrated that **low blood albumin** in pre lambing metabolic profiles, is a very accurate indicator of impending lamb mortality. Low blood albumin occurs as a result of poor long term protein supply in pregnancy.

Hopefully we now all understand the vital importance of optimising colostrum quality and ensuring that colostrum is taken by lambs within the first 2 hours. In this study, they measured the level of IgG antibody present in lambs born to those ewes which were metabolic profiled. Litter size and ewe energy status three weeks pre-lambing were highly predictive of neonatal IgG levels in blood.

Following on from this, they measured growth rates of the lambs which averaged 300g DLWG. The main risk factor for poor DLWG under 260g per day was low IgG levels!! Put simply, an unidentified energy deficit in ewes pre-lambing, causes low antibody levels in lambs and subsequently poor growth rates.

There can be huge variability in forage protein and energy content from year to year and a forage analysis will help determine the amount of concentrate needed to be fed to ewes in late gestation. Feed companies will often offer this service free of charge, and if you wish to discuss ration planning- which compound, how much and when, we are happy to advise. It is crucial to ensure that energy and protein supply is optimised for scanned lamb numbers and gestation stage. Checking this with a metabolic profile will enable tweaks to be made to the diet in time to improve lamb survival and growth rates.

Please give us a call if you wish to discuss your forage analyses or explore how metabolic profiles could help you manage your ewes with a bit more precision!





CLIFFE FARM VETS TO LAUNCH SUCKLER AI SERVICE

After learning of the success that another XL practice, Black Sheep Farm Vets in Northumberland had, in bringing the benefits of artificial insemination to suckler herds, we thought it was only fair to offer this package to our own clients!

Cliffe Farm Vets are proposing a new beef AI program for farmers to take advantage of. We will offer a fixed price per head for

synchronisation, AI and 40 day PDs. We are also able to discuss and offer advice on estimated breeding values (EBVs) regarding which bulls to choose from a variety of sources, which ones would suit your farm, and arrange delivery of semen direct to us.

Many commercial and pedigree beef farmers could benefit from a tighter calving pattern, higher calf weaning weights and increased genetic merit of the replacements. This can be easily achievable by using AI to high genetic merit bulls following the adoption of a synchronisation protocol.

Many studies have shown for beef farmers to be profitable they should be aiming to calve 95% of their animals in the first nine weeks of calving, and 65% in the first 3 weeks. Condensing the calving period with fixed time AI and then using a sweeper bull would be beneficial to tighten things up.

Many farmers are put off by the initial costs of AI, but hear us out and maybe it might spark some interest!!

- One of the main reasons to use AI is to improve genetic value of your replacement animals without the expense of a top quality stock bull. Being able to pick and choose different sires, from a range of semen companies enables farmers to pursue their desired breeding characteristics. Using estimated breeding values (EBVs) can help improve calving ease, by looking at EBVs for birth weight, and gestation length, and improve growth potential, as well as produce higher value replacement heifers. It also reduces the expense of a stock bull upkeep and replacement every 2/3 years as a bull can be kept for longer avoiding mating of daughters.
- Tighter calving block- Due to the fact we would be serving all the animals on Day 1 of calving with 60% conception rates, we would expect 60% to calve within the first week. Front loading the calving pattern will give a tighter calving block and a more uniform crop of calves. This makes it easier with regards to management, vaccination protocols and reduces disease pressure (reducing mixing calves of different ages).
- Increasing the proportion of calves born at the start of the calving block allows more time to grow, thus increasing absolute weaning weights and better returns at market. Replacement heifers are also more likely to be at target weight (65% of mature weight) for AI at 15 months of age.
- Reducing disease risks associated from sharing bulls and natural mating.

Economics

The cost of bull upkeep and replacement is often an underestimated cost. The average cost of keeping a reasonable quality stock bull is around £1300 per year (based on 4 years working longevity, depreciation and fixed and variable cost). This divided by an average of 30 cows equals around £45 per calf.

The full synchronisation programme, including visits, medications, one fixed-time AI and 40 day pregnancy diagnosis will cost £40-60 per head depending on numbers. Adding the cost of your choice of semen will equate to around £55-70 per head. At £100 per calf born (@60% CR), this may seem expensive as an upfront cost but when you take into account the improved genetics of replacement heifers and the increased weight at weaning, the costs start to be offset.

AHDB research proved that calves born to AI were on average 45kg heavier at weaning than calves born to natural mating. This was due to a tighter calving pattern and superior growth rates. This equates to around about £135 per head based on a price of £3 per kg.

We recommend using a sweeper bull for the cows/heifers that don't conceive to AI, or to submit more heifers than you need for replacements based on a 60% conception rate.

Tips for AI success

- Cows must have been calved 30 days before they are synchronised.
- Good body condition is a must – aim for BCS 3 and avoid any extremes.
- Ensure animals have been bolused for appropriate trace elements (for example, selenium, cobalt and iodine). Check trace element status first and choose supplementation accordingly.
- Ensure there are no issues with bovine viral diarrhoea (BVDV), leptospirosis or infectious bovine rhinotracheitis (IBR), which can negatively affect fertility. Speak to one of our vets if you wish to discuss this further.
- Keep management consistent for a month before and after service (avoid group changes).
- Ensure cows are on a rising plane of nutrition, before and during the service period.
- Use estimated breeding values (EBV) to select sires with appropriate traits to drive herd improvements.

If you are interested in discussing this further please ring Will or Carmen to answer any questions you have.



EAST SUSSEX BADGER VACCINATION PROJECT

The Government published in November an invitation to tender for managing a farmer led badger vaccination project in East Sussex.

Cliffe Vets have tendered for the project and with widespread support already received from our farm clients and local landowners, we hope to succeed with our bid and be able to pursue this interesting project in 2021.

This is billed as a government funded 5-year pilot study to assess the feasibility, the costs and the impact on bTB in the area after mass badger TB vaccination and it could just be another useful tool in the toolbox to use in the control of bTB.

AVIAN INFLUENZA-THE FARMVETS ON THE FRONTLINE

As 2020 finally draws to a close and the news is still dominated by COVID-19 you couldn't imagine anymore national virus outbreaks. But here we are rounding off the year with the Avian Influenza Prevention Zone (AIPZ) being declared nationally across England, this really isn't the news we hoped for in the run up to the one meal of the year dominated by poultry – Christmas! It also leaves one question in the farm vets mind - Is this our frontline? Well perhaps not, with well-practiced control measures that we are quite familiar with deploying on a farm and national scale Avian Influenza has hopefully been stopped in its tracks. Whilst we also won't be asking anyone to clap for us on a Thursday night, the guidance for your poultry is similar – “Stay Home, Control the Virus, Save lives”. Current advice for your own backyard poultry is to keep them housed, preventing wild birds accessing their feed and water.

Recognised clinical signs include reduced appetite, diarrhoea, decreased egg output (excluding normal seasonal change), respiratory distress and death, with signs tending to be more severe in chickens compared to ducks and geese. Avian influenza can be spread directly from bird to bird or via bodily fluids and faeces, so extra precaution should be taken with your biosecurity as it can also be carried on contaminated feed, clothing and footwear. It is important to remember that it can also affect the wild and game bird population, advice remains to not pick up any dead or sick birds you may find.

The risk to humans through poultry food products is low, so just make sure to properly cook all meat and eggs, so unfortunately runny yolks are not recommended. There is a risk to human health by direct contact with secretions from an infected bird, so without sounding like a broken record, remember to keep washing your hands! Symptoms to look out for in yourself are conjunctivitis (the most common sign), nausea, abdominal pain, diarrhoea and flu-like symptoms – not to be confused with COVID-19!

Over the past couple of weeks, Myself and Will made the journey to APHA Bury St Edmunds to help with the Surveillance effort around known infected farms. Duties involved gearing up in full PPE and going to any property that has kept birds, whether it may be one bird or 1000 birds, to inspect all poultry, their housing, giving advice and taking samples where necessary. It wasn't all hard work as the hotel spa and pool facilities softened the blow.

If you have any questions, would like any advice or suspect Avian Influenza in your own poultry, please give us a call at the practice. More information can also be found on the government website.

VITAMIN D — IS YOUR ALPACA SEEING ENOUGH SUN?

As we are in the winter months, any alpaca owner must be aware of the possibilities of a vitamin D deficiency in their stock.

How does this occur?

Naturally South American alpacas are susceptible to this deficiency due to the low levels of UV found in the winter months in the UK.

There are 2 ways in which Vit D can enter the body -

- Through the diet
- UV light

Why is this important?

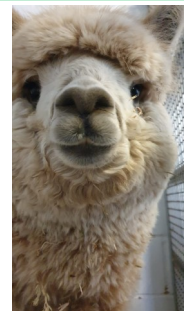
Vit D is essential to the body in many ways from the immune system to bone growth and is involved in maintaining calcium and phosphorus levels. It does this by increasing absorption of calcium from the intestines, reabsorption from the kidneys and metabolism from the bone.

We typically see Vit D deficiency in younger growing animals however all ages are susceptible. This is called “Rickets” and usually occurs around 3-8months old. The main signs of rickets are lameness, reluctance to move, hunched back, poor growth, limb deformity and swollen joints.

Diagnosis- along with clinical signs and history, radiographs of affected limbs are definitive of rickets in camelids.

Treatment and prevention- A subcutaneous or Intra-muscular injection of Vit D (Hipravit) is the treatment of choice and oral administration of a vitamin D paste every 2-3wks throughout the winter is advisable for prevention.

If you have any questions please feel free to call us.



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