



With spring just looming around the corner, the time for another FAP newsletter has arrived. We would like to start by thanking everyone that joined us at last month's farmers' meeting and hope it was an enjoyable and informative evening. For those of you who were unable to attend the event, we would be grateful if you could fill in the form included with this newsletter to provide us with some basic information about your farm and stock. This would greatly help us target relevant information to you and improve our client support. We have also included a letter asking for your help with a student research project which Alex is supervising and again we would be grateful if you could find the time to consider it.

In this newsletter, Isabelle reminds you of the risks of and control strategies for Clostridial diseases, Amy discusses how to manage the peri-parturient worm egg rise in sheep and Martin explains the role of dietary protein in colostrum production.

## Clostridial Disease of Livestock

Clostridial organisms are probably the oldest known pathogens affecting livestock and are ubiquitous in every part of the world. Clostridial bacteria produce spores, which can persist for long periods in soil, making some pastures particularly hazardous. Most Clostridial organisms can also occur naturally in the gut of healthy sheep and cattle, where they live causing no trouble, pass in the manure and contaminate the soil. Under certain conditions, they proliferate, releasing toxins and enzymes that, in the majority of cases, have deadly consequences. Clostridial disease outbreaks are often precipitated by 'trigger factors', ranging from parasitic activity to changes in management and trauma. Blackleg, pulpy kidney, black disease and malignant oedema, just to name a few, are all known to cause rapid death of sheep and cattle. Treatment with antitoxins and large doses of antibiotics is expensive and rarely effective. However the good news is that vaccines are readily available, inexpensive and ensure effective protection against most forms of Clostridial disease encountered in the UK.

Vaccination induces active immunity, requires a primary course of two doses and protects vaccinated animals for a period of up to 12 months, after which an annual booster is required. Vaccinating pregnant animals in the weeks prior to parturition transfers (passive) immunity via the colostrum to newborn

lambs and calves, which will protect them in their first months of life (when they can be particularly vulnerable to certain Clostridial diseases) until they are old enough to be vaccinated themselves. Defining a farm's vaccination programme requires knowledge of its main risk periods (e.g. feeding changes, access to contaminated pasture, certain management procedures) and an understanding of the immune system of the animals concerned. Therefore, if you want to embark on a vaccination programme or want more information about the Clostridial diseases themselves, why not speak to any of the vets in the Farm Animal Practice? We'll happily provide you with more information.



## Managing the Peri-parturient Egg Rise in Sheep

As ewes approach lambing, their immune system naturally becomes less efficient. Consequently, they become more susceptible to a number of infectious diseases such as foot rot. It also means that they are less able to suppress the egg laying capacity of any strongyle worms resident in their gastrointestinal tract. These worms are either picked up early by the ewes from the pasture or they have remained arrested in the ewe over the winter. As immune competence falls, egg laying goes up and the number of eggs released in the ewes' faeces greatly increases. These eggs can become a major source of pasture infection for newly grazing lambs in the coming season.

Controlling the level of infection is important and requires some pre-planning. Now is the time to re-examine your policy for managing the peri-parturient rise in your ewes. The dip in immunity affects the ewe from up to four weeks before to around six weeks after lambing. Turn-out fields near to the steading that are used annually for new born lambs and ewes can become very contaminated with eggs. If fields such as this are present on your farm, then ewes may need a wormer with some persistence prior to turnout to reduce magnifying infestation levels and causing heavy contamination of other future grazing. Products containing moxidectin can be useful, but you must monitor their efficacy in your flock as resistance is becoming common.



Post-drench checks can be a useful way to monitor for resistance. Collect separate faecal samples from ten treated ewes two weeks post-dosing and bring them to the practice and we will carry out faecal worm egg counts. Healthy and well-conditioned single bearing ewes do not significantly contribute to pasture contamination as they do not experience a significant drop in immunity around lambing. Therefore, consider not treating these ewes with wormer. These animals then act as a refuge for susceptible worms and help to sustain the efficacy of anthelmintic treatments on your farm.

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## Low Protein = Poor Colostrum

Colostrum is not a novel subject and the three Q's of colostrum management: **Quality, Quantity, Quickly** are well ingrained in farmers' and vets' minds alike. Yet, each year we encounter a number of cases of failure of passive transfer (FPT) of antibodies, leading to widespread neonatal disease in both beef herds and sheep flocks. This not only impacts calf/lamb health and viability, but ultimately growth rates and profitability. Recently, we have identified a number of nutritional issues, in particular protein restriction of the diet in the run up to calving/lambing, that can significantly contribute to this problem.

Dietary protein plays a vital role in colostrum production and milk yields. A lack of both Effective Rumen Degradable Protein and Digestible Undegradable Protein in the dam's diet prior to birth will result in reduced

production of both colostrum and subsequent milk yields after birth. ERDP also plays an important role in rumen health and ration utilisation. This year, SRUC has reported low protein content of conserved forages and this is something we have also seen in our DHHPS herd health office. In reality, this has led to a number of rations falling short of protein, mainly due to the fact that presumed protein content was insufficient. Undertaking forage analysis and/or metabolic profiling 3 weeks or so in advance of predicted start of calving/lambing will help assess if energy, protein and mineral supply of the ration is sufficient and ease any nutritional concerns that may impact on calf/lamb viability. Please don't hesitate in contacting one of the vets about appropriate nutrition or factors affecting FPT.