DAIRY HERD HEALTH & PRODUCTIVITY SERVICE

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AHDB Dairy Research Seminar

AHDB Dairy are hosting their 1st Dairy Research Seminar – Discover, Innovate and Grow on 1st and 2nd March 2016 in Kegworth, Derbyshire. Attendance is free to levy payers. To find out more visit dairy.ahdb.org.uk/dig or call Jenna Porch on 02476 478690

Effect of feeding low protein silage

SAC Consulting issued a warning in the autumn on the back of their silage analyses for beef and sheep units, about the low protein content of silages this coming winter. Their results indicated that "nearly half have a protein content below 10%", and they quoted similar figures from Rumenco showing an average protein level of 11% in their analyses. These results would suggest that a lot of beef and sheep diets are likely to be short in protein, which could have potentially serious consequences for animals in late pregnancy.

For very low protein forages (below 9%), the concern is that there is not enough protein available for the rumen microbes to digest the forage. Such an extreme situation is usually only encountered in animals fed straw-only diets (which have not been properly supplemented with protein), but could be encountered on poor quality silages this year, even in "far off" dry dairy cows. The rumen becomes impacted with undigested forage, which in extreme cases will cause starvation and death - even through there might be sufficient energy in the diet, as it cannot be digested properly in the rumen.

Affected animals will appear full, with a rumen full of undigested forage. However getting your hands on to body condition score them will show that they have been losing condition, and their dung will be very dry, firm and stiff.

Blood sampling can be vital to pinpoint what is going on, as affected animals will have evidence of excessive mobilisation of body reserves (high BHBAs and NEFAs, as well as poor condition) and low urea-N results (due to the lack of ERDP supplying protein to the rumen microbes). Some animals will even potentially have low albumin results (a long-term measure of protein intakes) if fed only low protein silage all winter.

What protein to supplement with will depend on availability, stage of production and cost, and advice specific to the farm should always be sought from a professional advisor. For basic maintenance rations in mid pregnancy, cost-effective supplementation with a good ERDP source such as draff or brewers grains might be sufficient. However in late pregnancy, a source of bypass protein (DUP) will be necessary to meet the demands of the growing foetus, hence the inclusion of soya or other quality protein sources in the diet. Speak to your feed advisor, and blood test now.

Questionnaire for vets

Bovine neosporosis is one of the major infectious causes of abortion and neonatal mortality in cattle. Stefano Guido is doing a PhD on Neospora at Moredun, and has an online questionnaire to assess perceptions and attitudes for the diagnosis and control of this important disease. Click on the link below:

https://eh.onlinesurveys.ac.uk/neospora-questionnaire

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Get your calves off to the best possible start in life

Given current milk prices, it can be a very difficult time to plan for the future, and calf rearing is often an area that suffers. This is understandable with a two year gap between a heifer calf hitting the ground, and her milk going into the bulk tank. However investing in heifer rearing now means you can be ready to take future advantage when milk prices improve.

It has been demonstrated that management during the neonatal period and early life is crucial to the future success of dairy heifers. A substantial 32% of mortality in the first 16 weeks of life can be attributed to failure of passive transfer (FPT or poor colostrum intakes). Another less dramatic, but more insidious effect is lower growth rates to three months of age. With good evidence available for the benefits of calving heifers at 24 months, such slowed growth will have hangover effects when selecting heifers for service. Aside from losses on individual farms, the livestock industry is under increasing pressure to reduce its impacts on the environment and antimicrobial resistance. Recent highlighting of the rules against the prophylactic use of chlortetracycline powder in calf feed is a good example of this, and act as a reminder that we cannot rely on pharmaceuticals to manage disease.

All of the above make a compelling case for putting in place management practices to reduce the incidence of failure of passive transfer in calves. However time is very short on farms, and it is vital to ensure that both your time and money is spent wisely in places that will make the most difference. If you are seeing cases of pneumonia or scour in your calves, or if your heifers are not reaching bulling weight by 15 months old, think about whether failure of passive transfer may be contributing. It is not expensive to identify if your current practices are delivering in terms of neonatal care.

Many farms already monitor their calves, and taking blood samples from calves aged between 2 and 7 days old is one way of monitoring colostrum intakes. Total protein can be measured using a small piece of hand-held equipment called a refractometer, with many vets able to run samples in-house.

If failures in colostrum intakes are identified, you need to identify the weak points:

- Are calves receiving the right amount of colostrum? Calves left with their mothers to take colostrum often fail to consume enough.
- Is your colostrum of low or variable quality? Colostrum quality can also be measured easily using a Brix refractometer. These are much easier to use and more robust than glass colostrometers, can be bought very cheaply (under £30), and the test can be done at the 'cow-side'. You and your vet can work together to set up protocols and make sure that your refractometer is properly calibrated. Such monitoring will increase the reliability of your colostrum feeding and reduce FPT risks.
- Do you have problems with calving difficulties, with calves slow to get going after calving? Both these factors are known to affect passive transfer, independent of the amount of colostrum a calf receives.
- Is your colostrum collection and feeding equipment scrupulously clean? High bacteria counts in fed colostrum reduces the amount of immunoglobulin that the calf absorbs. Attention to detail at birth leads to better levels of passive transfer, which in turn leads to healthier, more productive, and longer living cows.

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