



Milk fever

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Nantwich Veterinary Group's Rob George is working with Advanced Ruminant Nutrition's Bryn Davies to find solutions that help prevent one of those common issues in dairy herds which can act as a precursor for other diseases.

If your herd has experienced an incident of milk fever so far this year, then the chances are it will simply because lactation demands make it almost impossible to maintain calcium balance at calving, says Rob George. Herd incidences are currently running from 5% to well over 25%, while the challenge is to keep those levels below 3%, a target currently being achieved by some of the best run herds.

Milk fever comes with a cost of more than £200 per incident in lost milk income, vets' time, drugs and potential cow death in extreme cases including culling. However the losses don't stop there. Whenever there are cases of clinical milk fever then subclinical incidences of the disease post calving will be running at between 25% to 50%, levels that will have a much greater economic herd impact.

Furthermore, milk fever and subclinical milk fever are considered gateway diseases that greatly reduce the chance for full productivity during lactation. Milk fever can impact by reducing rumen activity and subsequent feed intake and energy levels, thereby exacerbating the issue. Fertility can be impaired and the risk of mastitis, lameness and ketosis can also be increased.

In addition, cows that have suffered clinical milk fever will have a three fold increased risk of developing a dysfunctional rumen and left sided displaced abomasums, while both clinical and subclinical milk fever is associated with physiological disorders affecting contraction of various smooth and skeletal muscle which ultimately can prolong calving and lead to rumen contraction.

What to look out for: while milk fever is obvious to diagnose, subclinical milk fever is more of a challenge. Classic symptoms include cows not cleansing properly and remaining dirty for up to five days after calving. Bleeding after calving indicates that subclinical milk fever is a significant problem.

How to prevent - achieving the < 3% herd incidence target: prevention should be every producers' goal and currently there are two main systems for introducing to dry cow diets, Bryn Davies explains.

1, The conventional system features feeding high levels of magnesium and reducing calcium to the lowest levels possible. Target levels are 0.4% for magnesium and 0.35% or below for calcium, while potassium must be below 1.6%. However achieving and then maintaining these levels presents huge challenges. For example, slurry applied to grass leads to high levels of potassium in forage – between 2% and 4%; potassium is noted for interfering with magnesium absorption in the rumen and ultimately pushes the cow towards low calcium availability at calving.

2, DCAB system developed using anionic salts to balance high potassium forages. However, these salts can be very unpalatable in the quantities required to drop the DCAB down to the required level. Diets require an awful lot of attention to detail because the aim is to mildly acidify the cows' blood, however if you push too far without accurate measurement it can be disastrous, alternatively if you do not go far enough you achieve no impact.

3, Conventional plus DCAB, our preferred method, drawing the best from both systems without the associated problems. It allows us to overcome the common issue of high calcium and high potassium based dry cow forage diets. Keep the dry cows on one mineralized TMR diet throughout the seven to eight week dry period based on 3.5kg to 4.0kg of straw and a mix of forages that are being fed to the lactation cows to supply approx 110MJ to 120MJ energy and 12% CP. In the final dry three weeks add daily 2kg to 3kg of a specific concentrate to off set a fall in

appetite, lift CP to 14% and drop the DCAB by introducing a small amount of anionic salts. Then keep monitoring the TMR to maintain these levels.

Cows already suffering from milk fever should receive normal vet treatment. To reduce the risk of sub clinical milk fever feed a calcium bolus to provide a continual supply of calcium for 40 hours, also simply add extra limestone flour to freshly calved cows' diets. In addition, you can dose these cows with Pro 90 to ensure a perfect transition into lactation.

Further information on preventing milk fever; Rob George on 07773 384 450 or Bryn Davies on 07930 336 172.