

Milk fever continues to be a UK-wide problem

Practical approach to prevention

When the calcium required for milk production exceeds the cow's ability to mobilise her reserves a balance in calcium levels cannot be maintained and milk fever is the result. We spoke to a dairy specialist and a producer to evaluate the options when prevention is always better than cure.

text **Allison Matthews**

The dry period is all about setting up the pre-partum cow 'correctly' for the next lactation. The final two weeks of this transition time are all about

preparing the cow – particularly her udder – for the forthcoming lactation. Thompsons' dairy specialist Denise Rafferty says that milk fever is still the

most common metabolic disease of freshly calved cows.

"Cows suffering from clinical cases are eight times more likely to contract mastitis and suffer from retained foetal membranes.

"Sub-clinical milk fever, although difficult to detect and measure, can also affect up to 75% of UK dairy cows. Those involved can suffer from reduced muscle contractions, causing a reduction in feed intake and an increased risk of left displaced abomasums."

Calcium levels

Even with the high level of sub-clinical milk fever in herds it is still practically immeasurable and Ms Rafferty adds that management decisions must be based on 'what we know but can't necessarily see'. "Maintaining the homeostasis post calving is a real test as the onset of lactation results in the loss of calcium into colostrum and milk. Milk fever is the result, particularly in older cows, as well as all the problems that go with it such as ketosis, displaced abomasums, retained cleansings, metritis and even



mastitis. The calcium levels at calving time must be managed to ensure further complications are prevented.”

As the cow attempts to replace lost calcium by withdrawing it from bone or by absorbing it through the diet, milk fever can be triggered when high levels of potassium in the diet create metabolic alkalosis. This is why forages, such as third-cut silage, that are high in potassium can cause huge milk fever problems within a batch of cows, explains Ms Rafferty. “Metabolic alkalosis will inhibit the re-absorption of the calcium available from the bone, compounding the problem in an already fragile animal. This has encouraged producers to make ‘dry cow silages’ that are taken from ground that never received large amounts of potassium-filled fertiliser.

“The use of anionic salts in DCAD diets is also very common, but they require a large amount of time and precision to be successful. Although management decisions such as these may have helped, they are still not a guarantee against milk fever,” says Ms Rafferty.



Charlie Weir: “Tackling milk fever on a large unit is not an easy task”

When County Down-based producers John and Charlie Weir found that milk fever was becoming an issue in their 600-cow herd they knew that prevention was their only means of control. “With 70 or 80 cows dry at any one time, and up to 15 cows calving every week, there was no time to deal with milk fever on a regular basis,” explains Charlie Weir.

Simple solution

“We had tried using a high-straw diet and magnesium crystals before, but we



Denise Rafferty: “Management decisions must be based on what producers know”

didn’t see it having the right effect. Sub-clinical milk fever was a big problem and we saw a lot of cows with retained cleansings and used a lot of bottles of calcium,” adds Mr Weir.

Tackling milk fever on a large unit is not an easy task and, following consultations, the Weir’s decided to start using a calcium binder known as X-Zelit.

“A product like this will bind up dietary calcium in the small intestine, preventing the absorption of the calcium available. This then stimulates the cow to turn on calcium homeostasis in the body earlier in the dry period, encouraging her to mobilise calcium from her own body reserves.

“It should be fed for a recommended 14 days prior to calving, but the benefits can be seen right through the first 100 days of lactation with an improvement in milk yield of 1kg per cow per day,” explains Ms Rafferty.

“After two weeks we started to see a dramatic decrease in milk fever cases and cows seemed much livelier after calving. Our problem has actually reduced by 95% in a short period of time and we have had few issues with freshly calved cows since. On a practical basis it is easy to use through the diet feeder mixed with straw, silage and minerals,” adds Mr Weir.

Calcium binder

“There are so many knock-on effects of milk fever, such as metritis and ketosis and LDAs and mastitis, that feeding a calcium binder for two weeks pre-calving may be the answer for many producers. If metabolic disorders can be reduced it will result in a much healthier cow throughout the whole lactation.

“The value of getting the cow off to the right start after calving is priceless compared to the benefits for future milk production,” concludes Ms Rafferty. |



Preventative measure: feeding a calcium binder for two weeks pre-calving may be the answer for many herds