

Subclinical milk fever – keep the signs in mind

The results of a national survey reveal that subclinical milk fever may be underestimated on many UK units. We spoke to Boehringer Ingelheim Animal Health's Kath Aplin to find out more.

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Dry-cow management: rations should be formulated to ensure that cows are able to mobilise calcium reserves at calving

The National Milk Fever Survey, which was launched by Boehringer Ingelheim Animal Health in 2019, has yielded some interesting findings, not least that 78% of the respondents had downer cows – cows with milk fever (hypocalcaemia) during the past 12 months. And a third reported that this was a frequent occurrence. Respondents were well aware of the signs of clinical milk fever, but the survey highlighted that there is a wide variation in how well the possible consequences of clinical or subclinical milk fever are recognised. There were also significant differences in the ways that producers tackle the prevention of milk fever. “The survey reveals dry cow diet and management to

be top of producers' minds when it comes to milk fever control” says Boehringer Ingelheim Animal Health's Kath Aplin, adding that several herds reported effectively eliminating milk fever from their herds. “However, one alarming finding was the inappropriate use of calcium injections for prevention.” The survey, which was carried out for the first time this year, was completed by 187 herds (estimated to represent around 37,400 cows), and highlights a need for increased awareness of subclinical milk fever and the signs to look out for. On average, producers reported six cases of milk fever on their farm each year. This level of clinical milk fever



Survey highlights

- 78% of respondents saw downer cows during the past 12 months
 - On average, producers reported six cases per herd.
 - A clinical milk fever incidence of less than 2% is an achievable target
 - Higher rates should be investigated –
- subclinical milk fever is likely to be a significant problem
 - It is possible to 'eradicate' milk fever – to see zero cases per year
 - Subclinical milk fever will leave cows more prone to 'fresh cow' conditions, including ketosis, endometritis, retained foetal
- membranes, LDA and still birth, as well as reduced milk yield.
 - Calcium bolusing is an effective way to reduce the risk of milk fever, particularly in lame, high yielding and older cows (more than two lactations).

is clearly a significant headache for those herds, but the survey results suggest that subclinical milk fever, and its possible consequences, may be having an even greater impact.

Cows with clinical milk fever are more prone to issues such as ketosis, endometritis, retained foetal membranes (RFM), displaced abomasum (LDA), stillbirth and reduced milk yield. "But the same is true for subclinical cases. Even those that don't go down at calving can go on to suffer from any or several post-calving conditions, which seriously impact on cow health and fertility in the subsequent lactation," says Ms Aplin.

The survey revealed that 65% of producers knew that retained foetal membranes are associated with milk fever, but just a third recognised the link between milk fever and LDAs, and only a quarter knew the link between milk fever and stillbirth.

The majority (87%) of respondents reported at least one of these 'fresh cow' conditions were occurring sometimes or frequently during the past 12 months, suggesting that many subclinical cases could indeed be being missed. "This is the big 'take home' message from the survey," says Ms Aplin. "These conditions could be symptoms of subclinical milk fever. Clinical cases are only the tip of the iceberg. If the incidence in your herd is more than 2%, further investigation is advised. And it will typically reveal that a large percentage of the herd has a subclinical issue. This needs to be addressed."

Mineral balance

She adds that it is important to rule out subclinical milk fever when it comes to these 'fresh cow' diseases. "They can be the result of other management and nutritional factors, but it's well worth checking the mineral balance of the dry cow ration, including the DCAB (dietary cation anion balance) with your vet and nutritionist, and checking for cows that are at higher risk of milk fever." Certain groups of cows are at greater risk than others. "Lame cows would be a high risk; they're less inclined to walk to the feed trough and stand to eat, so won't necessarily be consuming enough ration. So keep a closer eye on those cows."

Higher yielding cows also tend to be more prone to milk fever. Almost all herds had some measures in place to prevent milk fever, the most common measures being a low calcium diet and/or magnesium supplementation for all dry cows.

Many herds were also targeting higher risk cows with calcium supplementation at calving. Calcium boluses were shown to be widely used, but a concerning number



Kath Aplin, vet:

"Cases of subclinical milk fever are being missed in many herds"

of herds indicated that they were using calcium injections in an attempt to prevent milk fever in high risk cows. "Calcium injections are vital for treating cows with clinical milk fever, but they can be counterproductive if used as a preventative measure," stresses Ms Aplin. "The artificial boost in a cow's blood calcium can stop her hormonal system from mobilising her own calcium. So, after an initial rise, her blood calcium levels rapidly drop again."

Calcium reserves

"An oral bolus like Bovikal, which contains anionic calcium salts, has a different effect. It not only provides calcium, but also helps the cow to mobilise her own calcium reserves, which is exactly what she needs to do to stay healthy in the longer term as her milk yield ramps up."

The survey revealed that older cows were most likely to receive a bolus. Only 3% of herds were targeting lame cows with calcium bolus supplementation, and 14% were targeting high yielding cows. The survey highlights that more groups of cows might benefit from calcium bolus administration at calving to reduce the risk of them developing those costly conditions associated with subclinical milk fever.

Studies have shown that the cows benefitting most from calcium boluses are lame cows and high yielding cows, but a whole herd approach – giving a bolus to all cows above second lactation – is a simpler option for many herds and is also consistently cost effective.

"The Boehringer team will continue to share their whole herd protocol with producers along with the evidence supporting the use of calcium supplementation," adds Ms Aplin.

"One Bovikal bolus is given at the first signs of calving and one immediately after calving, with a further one to two given at intervals of between 12 and 15 hours, if necessary. It's simple and could be key to producers having healthier herds, with reduced costs and improved productivity." |