

Consulting cattle vet Debby Brown, from Lancaster-based Advance Nutrition, takes a timely look at health and welfare issues that are affecting dairy herds across the UK. In this issue she explains how to prevent and treat an all-to-common condition that occurs around calving.

Sub-clinical milk fever cases can manifest as other health problems

Mind the gap!

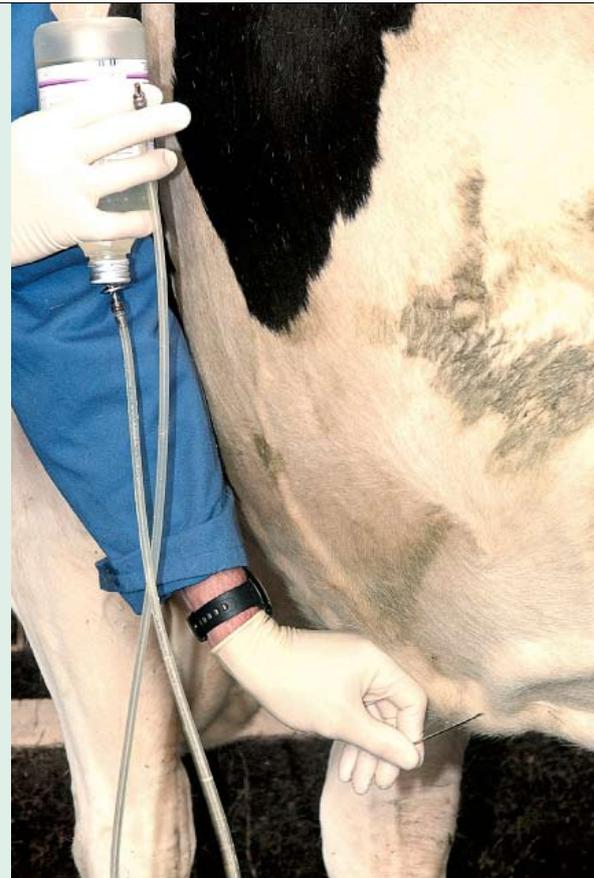
Between 10 and 20% of older cows, in their third or more lactation, are thought to suffer from hypocalcaemia, or clinical milk fever, and 75% of cows are thought to suffer from sub-clinical milk fever. I expect that the second figure is much higher than most producers expected.

Milk fever tends to occur shortly after calving when there is a shortage of calcium. During the dry period there is no requirement for calcium for milk production, although there is some requirement for other functions, so the rate of absorption from the intestine and release from the cow's skeleton, which is hormone regulated, is reduced.

At calving there is a sudden increase in the cow's requirement for calcium for milk production. The increase in absorption from the intestine takes 24 hours and release from the skeleton takes 48 hours. So there is always a 'gap' or deficiency in calcium levels at calving, which can present itself either sub-clinically or clinically.

In a clinical case, the cow may become a 'downer' cow and this will result her needing rapid calcium administration, probably by intravenous injection by a vet. However, the after effects of this, and also sub clinical cases, can be as costly to the producer as the obvious downer cow. The consequences of both clinical and sub-clinical milk fever include increased incidences of ketosis, displaced abomasums, metritis and mastitis. These are all costly conditions. Prevention is obviously the preferred approach and feeding a good quality and well-balanced dry cow ration is the answer. Some producers feed a DCAB ration during the dry period, as this helps to increase calcium mobilisation and raise levels of calcium in the blood. But it can be difficult to do correctly and requires careful monitoring.

Feeding for low calcium in the dry period is difficult, so try to 'bind' the calcium and then feed to allow immediate release at calving.



The encyclopaedia **Hypocalcaemia (milk fever)**

Cause

Calcium deficiency at calving. Usually compounded by feeding an unbalanced dry cow ration prior to calving.

Symptoms

Clinical cases present with the typical 'downer' cow – a cow that can't stand. But she may also be very still or twitchy and she may stagger. Sub-clinical cases are more difficult to spot, but if you have recurring or high incidences of other problems post calving – such as LDAs or retained cleansing – it may be worth

investigating to see if sub-clinical milk fever is the underlying cause.

Treatment

Downer cows should be given an intravenous injection of calcium as an emergency treatment. Subcutaneous injection or oral supplements (boluses/pastes) are an option but they're not as good since only a small amount is absorbed, making them less effective.

Prevention

Ensure that the dry-cow ration and management is tailored to reduce the gap between the cow's requirement for calcium and her ability to mobilise it at calving. Consider DCAB rations or other approaches, such as urine monitoring, as a pre-emptive strike against the condition.

