

## The miracle of magnesium

A conversation with a Uist crofter who was not having the best calving made me think about the difference that minerals can make. He outwinters his cows on the sandy machair soil, and feeds wholecrop silage, but no concentrate feed and no minerals. We discussed whether extra magnesium could transform his calving. Although we all know about magnesium and its role in prevention of grass staggers, magnesium plays a crucial role at calving time.

I was reminded about a farmer near to me in Inverness-shire who was finding that cows were slow to calve, needed help and as a result, calves were a bit slow to get up and suck. He had arranged for blood samples of the cows to be taken and analysed and found that although everything was ok and within range, magnesium levels were at the lower end of the scale.

After a conversation with SAC Consulting nutritionist Karen Stewart, he fed additional Magnesium, and it was if a small miracle had taken place! Calves were born more quickly, they were wet, didn't need help, neither cow nor calf were traumatised, and all had more get-up-and-go as a result (that's the cow, the calf and the farmer).

And while magnesium deficiency is classically associated with staggers, this mineral has an important role in helping the body make use of calcium. Even if they are



showing no external signs of illness, cows with mild deficiency can experience slow calving, resulting in less vigorous calves and increased risk of stillbirth.

The speed at which the cow calves has a knock-on effect on the calf, as of course, if it is quick to suckle, then it acquires immunity quickly and is much less prone to scour.

For the cows, correct mineral balance may reduce the likelihood of womb prolapse or retained placenta following birth. Calving itself should be easier, bringing benefits of a fast recovery, better milk yield and even a quick return to fertility.

### Get in touch....

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## What, how and when?

**When** – Magnesium isn't stored within the body which is why it should be fed daily, from at least 6 weeks pre-calving.

**What** – High mag minerals at 120g/day should provide the 20 to 40g that cows will need.

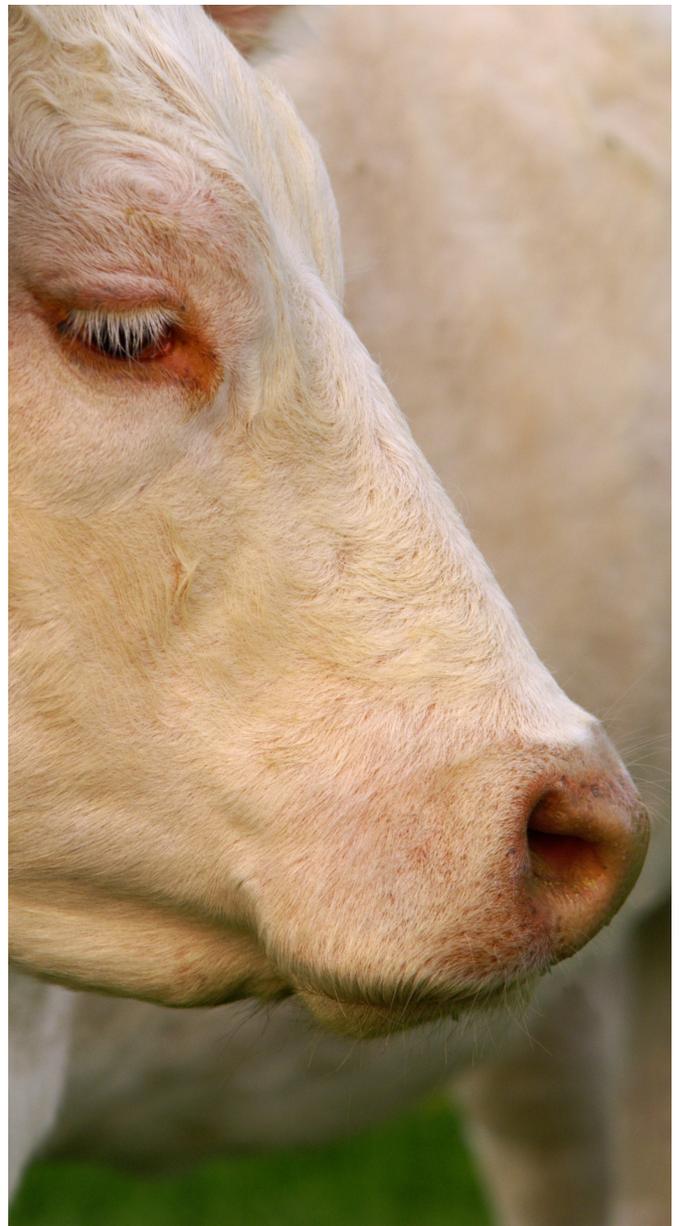
**How** – If cows are being given hard feed, it is easy to add minerals to the mix and know that cows will be eating roughly the right amount. However, if cows are outside and only on forage, then the options are:

- **feed a little concentrate just to supply minerals;**
- **feed high mag rolls on the ground;**
- **provide containers of free-access minerals;**
- **slow release Magnesium bolus**
- **or put out sufficient high Mag blocks or molasses. Although intake will be variable, this is better than no additional Magnesium.**

## How to tell?

Ask the cattle what they think – blood sampling a few in the run up to calving to check whether Mg and other minerals are in the right range is a good idea (and can be a good opportunity to do some metabolic profiling too).

Getting the cows in to blood test may seem a lot of hassle but it's cheap to test, cheap to fix deficiencies, and you only need to save one calf to make it worthwhile.



## Top Tips:

- **Have blood analysed in the month before calving**
- **Speak to your vet or advisor about supplementation**
- **Watch this video <https://www.fas.scot/publication/calf-scour-prevention-video/>**

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