Pre-calving blood profiling

February 26

Pre-calving blood profiling - what are we really looking for?

With calving season approaching or already underway for many spring-calving herds, nutrition comes sharply into focus. Deficiencies can be subtle until difficult calvings, poor milk yield, weak calves, slow growth rates or poor fertility appear.
Our pre-calving metabolic profile measures some key indicators of how your cows are performing nutritionally during late pregnancy.

The metabolic profile: what does it all mean?

- Urea: indicator of short-term protein
- Total protein: indicator of long-term protein status
- Beta-hydroxybutyrate (BHB): cows using their own fat as an energy source produce ketone bodies like BHB. High BHB indicates the cow is struggling to meet her energy demands
- Magnesium & calcium: muscle and nerve function and critical around calving

Two of the most common deficiencies we identify year after year in spring-calving suckler herds **are magnesium and protein.**

Magnesium:

A mineral essential for nerve and muscle function. Low magnesium is often linked with low calcium, meaning calving and early lactation can be compromised.

Morbidities associated with low magnesium:

- Grass staggers
- Low calcium ➡ dystocia, retained foetal membranes, milk fever, increased mastitis risk
- Poor fertility

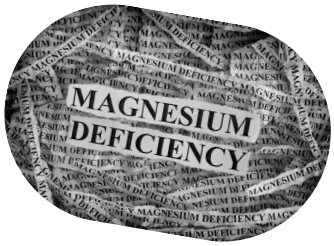
Why are spring calving cows particularly at risk?

- Winter forage is often low in magnesium
- Lush spring grass contains low magnesium and passes quickly through the rumen, reducing absorption
- High potassium silage interferes with magnesium absorption
- High potassium in spring grass due to fertiliser application further reduces magnesium uptake
- Stress (extreme weather, handling, calving) reduces feed intakes and increases demand

Even cows that appear in good condition can have low blood magnesium - especially in late pregnancy.

Preventing magnesium deficiency:

Suckler cows typically require **20-30g magnesium per head, daily**; with lactation this requirement increases by 0.14g/litre. Silage analysis can help determine how much magnesium is already being supplied in the diet.



- Magnesium chloride in the water (40-50g/cow/day)
- Magnesium containing powdered minerals added to feed
- Slow-release magnesium boluses
- Molasses fortified with lick feeders (remember to 'badger-proof')

The aim is to achieve consistent intake across the group.

Protein:

Protein is essential year-round for growth, repair and immune function but increasingly so in the build up to calving. A 650kg suckler cow requires:

- At least 9% crude protein in DMI during the dry period
- An additional 2-3% in early lactation

Adequate protein supports colostrum quality, milk production, calf vigour, fertility after calving and maintenance of cow body condition.

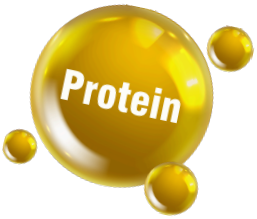
Why are beef suckler herds often protein deficient in spring?

Common contributing factors include:

- Late cut silage ➡ mature grass is more nutrient dilute and has a lower concentration of protein due to increased fibre and overall dry matter
- Poor silage intakes during cold weather
- Straw heavy diets diluting overall protein levels
- Thin cows have higher protein demands
- No protein supplementation pre-calving

Concurrent diseases may reduce absorption e.g. Johne's or a high parasite burden, so knowing your herd's status is key.

How to improve protein status:



- Target earlier silage cutting dates
- Supplement protein pre-calving: soya, rapeseed meal, high protein nuts, good quality legumes
- Silage analysis: If silage protein level <12%, concentrate must include a protein source
- Group cows by body condition:
  - Target BCS at calving: 2.5-3
  - Thinner cows and first-calving heifers need higher energy and protein rations.

The value of testing rather than guesswork:

Pre-calving blood profiling allows:

- Early identification of hidden deficiencies
- Targeted, cost-effective supplementation
- Reduced waste on unnecessary minerals
- Improved health, performance and productivity

When to test? **3-6 weeks pre-calving.**

Magnesium and protein deficiencies are common but preventable. Small, well-timed changes to nutrition in late pregnancy can provide benefits such as: easier calvings, stronger calves, better colostrum, better milk production and therefore improved calf growth rates and fertility.

All the best,

Meg

If you would like to discuss blood profiling or review your current mineral and feeding programme, please contact the team.

Vet Tech update

“Hello and Goodbye!”

We welcome Kate Selman to the Vet Tech team, she looks forward to meeting you all over the coming months.....

and we say farewell to **Zoe Korner and Ellie Welch** and wish them both all the best for the future.

MEDICINE HANDLING COURSE

At the Practice,

Thursday 26th February,

between 11am to 12.30pm

£79.44 + Vat

Suitable for Dairy, Beef and Sheep

Also, for our small holder clients...

Smallholder Medicine Course

Tuesday 10th February 14:30 - 16:00

@ The Practice, £79.44 + Vat

Learn about basic medicine handling, dosages and administration.

The GEORGE SMALLHOLDERS

If you would like to attend either of these meetings please contact us:
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