

# Test for trace elements to ensure stock health

By Laura Sloan  
Millocroft Veterinary Group

**S**ILAGE analysis, condition scoring, rationing? I'm a beef farmer – is all this really necessary?

## What can I gain from silage analysis?

Silage analysis allows forages to be complemented with the concentrates ration. Concentrates have the advantage of known nutrient components, good economy and can be tailored to herd requirements.

Silage analysis for minerals is particularly important in areas with a history of trace element deficiency.

Trace elements such as selenium, copper, iodine and cobalt are important for the overall health of animals. This is particularly true for young, pregnant and lactating cattle and can help to boost their immune systems.

Symptoms of an imbalance in these include ill thrift, poor fertility and – a common presentation in suckler herds – weak ‘fockies’/newborn calves.

However, overfeeding of minerals is a waste of money and excesses can be as harmful as deficiencies (eg copper), so a deficit should be established before buying supplements.

This should be checked routinely so that levels are sufficient, but not excessive.

The best time to test silage is six weeks after harvest to ensure fermentation has been completed. Silage analysis can reveal bespoke minerals that suit your farm needs.

Bespoke minerals that are added over the base forage ensure each cow meets her designated intake.

This is in contrast to mineral lark tubs where any fenders or those who find them unpalatable are likely to miss out.

## Why is body condition scoring (BCS) important?

This allows effective monitoring of performance to assess if the diet is delivering the desired results.

By carefully monitoring the condition of cattle

throughout the year, they will be able to utilise grazing and other available feeds when abundant without compromising performance during the rest of the season and help to keep costs down.

Good feed management should aid reducing days from calving to conception, limit calving difficulties and decrease the incidence of metabolic disorders.

## What BCS should I be aiming for?

BCS should be increased from calving until two months after conception to help her oestrus cycle, egg viability and reduce early embryonic loss.

From service to six weeks post-calving, her optimum BCS for calving (2.5-3) should be reached. Avoid any condition changes in the last six weeks of pregnancy.

## Why is rationing so important?

Successful rationing involves getting the balance between nutritional, practical and financial factors with the aim of meeting animals' performance requirements within their intake capacities.

Feeding correctly contributes to healthy reproductive cycling, calving ease, calf health through colostrum and overall herd productivity.

Even subtle feed corrections can be rewarding as results will show quicker than other managerial changes, such as genetic improvements, which can take years to yield desired results.

## What are the main differences between growing and finishing cattle rations?

Growing cattle need rations high in protein, fibre, vitamins and minerals with a moderate energy component compared to finishing cattle where high starch levels will help to achieve rapid weight gain and more efficient feed conversion ratios.

Through feeding high energy feeds, such as cereals, liveweight gain can be increased in finishing cattle. A diet high in starch can lead to unwanted fat deposi-



tion in growing cattle and should be avoided.

## Is soil testing useful?

Soil type, fertilizer application, pH, liming history, drainage, weather and plant species all affect trace element and mineral content of forage.

Soil testing may only reveal gross shortages and, although another useful tool for feed management, should not be analysed in isolation when considering the status of the herd.

## What can be gained from blood-testing?

Deficiencies are more accurately diagnosed from veterinary blood or tissue tests appropriate for the condition suspected, and a suitable number of samples will be decided depending on herd size and groups affected.

These results will give an idea of the status of the herd at the moment of testing so any problems can be identified and supplementation adjusted accordingly.

The response in productivity to this supplementation should be monitored and, if not satisfactory, then there may be another underlying cause.

Blood-sampling to ‘ask the cows’ may also indicate the degree of shortage of trace elements to give an idea of the best route for correction and also, if the imbalance is not too severe, will allow careful management to guard against over-supplementation.

Timing of blood-sampling

will need to be decided with your veterinary surgeon to establish if the time of year when problems are noted is still appropriate to detect imbalances, or if next year will be more suitable.

## What should I do if I think a deficiency is affecting my herd?

Deficiencies of trace elements and energy can cause a reduced productivity, but cannot be assumed to be the

only factors contributing to this ineffective parasite control, poor husbandry and the presence of disease can also be detrimental to condition.

Nutritional inadequacies can be slow to develop and only careful records of reduced daily weight gain (through scales or weigh-bands) compared to other producers/vargets and poorer calves at slaughter may show sub-optimal performance if signs are sub-clinical.

If you suspect an inadequacy in supplementation of the herd, contact your veterinary surgeon to discuss if a deficiency could be reducing productivity and if sampling your herd will be suitable for the clinical signs you are reporting. Your vet can then give independent advice as to the most effective method to correct any imbalances found and get the most out of your herd.

**LAURA SLOAN:**  
‘The best time to test silage is six weeks after harvest to ensure fermentation has been completed’

**MILLCROFT VETERINARY GROUP**  
Watefield Road, Cockermouth, Cumbria, CA13 8HR  
T: 01900 826666  
www.milicroftvets.co.uk

XLVets is a group of 52 vet practices all committed to the future of UK agriculture. By working together and sharing best practice, we aim to deliver the best health advice for your farm.

**XLVets**  
Established in Practice  
www.xlvets.co.uk

01900 826666  
www.milicroftvets.co.uk  
 01796 705040  
www.singaporevets.co.uk  
 01909 723002  
www.milicroftvets.co.uk  
 01928 702000  
www.paragonvets.co.uk  
 01947 2218  
www.croftvets.co.uk  
 01904 486472  
www.milicroftvets.co.uk