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Trace elements in Cattle

What are trace elements and why are they important?

Trace elements are essential for health, growth and fertility. For the purpose of this article, we will focus on the four key trace elements are copper, cobalt, selenium and iodine.

Apart from copper, trace element deficiencies tend to result from a lack of inclusion in the diet. Copper deficiencies can also occur when there are sufficient quantities of Sulphur, Iron and in particular, Molybdenum in the soil, which reduce copper absorption in the rumen.

How do I know if there is a deficiency within my herd?

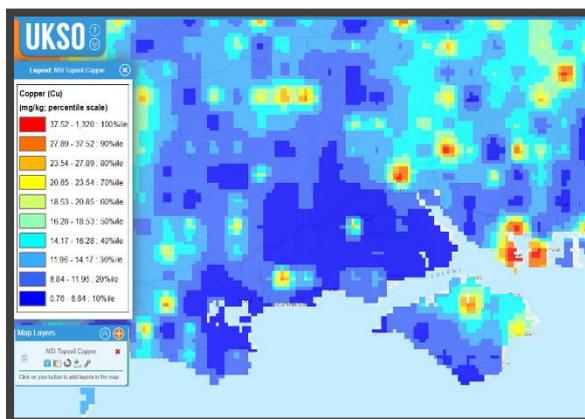
Seeing clinical signs is an obvious indicator, however, deficiencies can often go unnoticed and this doesn't mean that they aren't limiting productivity and efficiency within your herd.

Blood samples

Blood samples can be used to diagnose a trace element deficiency on your farm. The results can change depending on what they're being fed. So, testing should be planned to be representative of the time of the year – grazing versus housed. This can help determine when supplementation may be required.

Forage analysis

We can take representative sample from your forage/ration and run a mineral analysis; this can be used as a good indicator. Be aware that the ration that is put in front of the cows, is not always the same as the ration that is consumed or metabolised by the cow!



Soil Analysis

Whilst soil analyses are useful and will tell you exactly what is and isn't present. There is a useful online tool that shows topsoil chemistry within the UK. Here is an example of copper in the area of the practice, as you can see from the map a significant proportion of this region is copper deficient, and therefore, a primary deficiency may be present on your farm.

What can I do about it?

There are a number of ways to overcome trace element deficiencies. Mineral licks have often been used to aid with supplementation – there are disadvantages to this: Not only does a shared lick pose the risk of disease

transmission between cattle, but they also attract wildlife, in particular badgers, which poses a TB threat to the herd. In addition to this, we cannot be sure how much each animal has consumed. Trace element boluses, however, are an effective way to treat trace element deficiencies, although they do require a degree of time and skill to administer.

If you'd are interested in finding out whether your herd would benefit from trace element supplementation, feel free to contact us on 01258 452 626 or email office@damoryvets.co.uk

Copper	Poor/sparse coat Discolouration of coat Reduced growth rates Diarrhoea
Selenium	White Muscle Disease Poor immune function Reduced growth rates Retained cleansing
Iodine	Stillborns/abortions Weak calves Hairless calves Poor fertility
Cobalt	Reduced growth rates Reduced appetite Poor body condition Poor immune function Anaemia