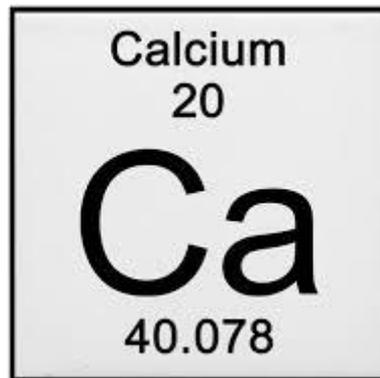


Lactating Females and Calcium Deficiency



Those of you who read my article on paddock management in *Llama Link* a couple of years ago might have thought all the time and cost that went into soil analysis and conditioning, selective ley and forage analysis, etc. was largely a waste of time or unnecessary expense, after all I know llama keepers who seem to think that so long as the grass is green and growing in sufficient quantity (possibly to also make hay) their animals will be OK.

However, its importance was reinforced to me recently when the mother of a two week old cria went down all of a sudden and was off her feet and rapidly losing interest in life. Her head was wobbling as if too heavy for the neck muscles to support and there were regular abdominal contractions. She had a slightly low temperature, slow metabolism but was not scouring or pale around her eyes.

After these routine checks for signs of parasite infection, anaemia, etc. suggested it might be something else, the next thought was possibly a case of calcium deficiency. Whilst hypocalcaemia is generally said to be a rare occurrence in llamas it can strike suddenly and lead to fatalities if not treated, usually by an injection of calcium directly into the vein in severe cases. Apparently, calcium deficiency affects muscle contraction and so the head wobbling and abdominal contractions were probably related to this phenomenon.

This was a bit of a shock since the soil and forage analysis two years earlier had shown everything to be in good balance with no real shortages of N, P, K or any of the important trace elements. However, the appalling weather these past two winters with copious amounts of rain have taken their toll on much land in the UK often leaching the ground of key nutrients, minerals and trace elements. Re tests of my paddocks indeed confirmed a significant lack of sodium, sulphur and calcium in the soil. Soluble elements can not only be lost from the soil but create imbalances that start to lock other elements and prevent plant growth making use of these. It is disappointing to learn that so much of what was added to get the soil and forage into good condition and balance was lost so rapidly through a mixture of grazing, hay making and the weather. From now on, my soil checks will be every two years as a bare minimum and no Spring will pass without additives to maintain elements readily lost from grazing .

It is surprising how deficiency in just one element can have such catastrophic effect. Some readers will be aware of the impact of other deficiencies such as copper and magnesium and of how some of

these are species specific. Some farmers attempt to manage the potential problem by planting appropriate forage rich in key elements; some rely heavily on mineral additives to hard feed or fortified licks. So, just as a reminder:

- Selenium deficiency can result in poor growth, white muscle disease, impaired reproduction, reduced immunity and reduced milk production.
- Cobalt deficiency.
- B12 deficiency is characterised by loss of appetite, wasting, anaemia, poor fertility rates, failure to thrive (particularly in young animals), and even death in severe cases unless the deficiency is corrected.
- Copper deficiency caused from either low soil levels or interference from other factors which could include age, pasture type, animal breed, molybdenum and iron. Copper deficiency can result in poor growth rates, diarrhoea, bone defects, swayback, coat colour changes, milk production and poor reproductive performance.
- Iodine deficiency is most commonly seen as goitre in lambs and only occasionally in calves. Iodine is used for the synthesis of thyroid hormones which are important for energy metabolism and animal development. Most commonly iodine deficiency will result in an increased mortality of young lambs

There is never a time to be complacent in animal husbandry.