



Correcting mineral issues helps cattle thrive

“The results speak for themselves”

The Hitchcock Family of Slades Farm, Belper, Derbyshire run a suckler herd of 200 head, along with followers and a further 300 head of reared calves and finished cattle. British Blue sires are the bulls of choice on the farm, with genetics from the Trencom herd being purchased at both the 2015 and 2016 British Blue Sales at Chelford, Cheshire. The proud additions to the herd are Trencom Icarus and Trencom Jakarta, purchased for 6,900 and 6,700 gns respectively.

As well as running the herd brother and sister team Stephen and Susan Hitchcock are well known for their thriving livestock haulage firm covering Derbyshire, Staffordshire, Cheshire and beyond.

The farm has been in the in the family for 70 years and it has been expanded recently with 4 new buildings added to the farm at Belper. The herd is fed grass silage, straw and brewers' grains and calves are creep fed with a 16 % pellet.

We are all aware of the importance of mineral supplementation, this is especially so in the Peak District.

Mineral drenches and licks were previously used on farm in large quantities, with varying results! However it was noted that certain issues and ailments remained unresolved. I have been visiting the farm for 3 years providing cattle scanning services and much can be learnt from pregnancy rates and ovarian activity.

My experience over the past 20 years in cattle fertility work has provided me with vast knowledge of on farm fertility issues, which has helped us to identify and solve problems and improve fertility rates at the farm. The farm is heavy land which is prone to heavy metals which can lock out any useful available mineral elements. Most of the off-the shelf products which the Hitchcocks were previously using were also loaded with iron.

This was one of the initial problems we identified with the minerals previously being used. Since January 2015 JG Animal Health have provided a custom made mineral which is balanced specifically to Slades' Farm forage. This is fed daily to all adult cattle and young stock. Prior to turn-out the cattle are drenched with Premier Cattle a high specification trace element vitamin supplement, this drench then covers the animals for up to six months and especially during the critical period at service time, when cows are challenged with a young calf suckling. The two options of mineral formula available from JG are ideal for the Hitchcock's system. A daily formula to provide in the feed mix whilst inside and a drench to give to the cattle pre turn-out. The drench is very useful for animals which are turned out away from home, drench them and you do not need to worry about provision

of mineral blocks, you know that each animal has received it's full dose and there is no chance of pesky badgers feeding at blocks and increasing risk of TB infection. Before a custom mineral is made for a farm, a forage sample is collected by ourselves and forwarded to the laboratory for full analysis. If we look at the mineral analysis for the grass silage from the farm below, we can see that it easily demonstrates significant imbalances. At a glance we can see we have low sulphur, copper, zinc and selenium levels, with extremely high iron and aluminium levels and elevated molybdenum levels to exaggerate problems further. Sulphur is vital for the general metabolism of the animal and rumen condition. Lack of this element can lead to inefficient feed conversion. Low copper levels can have a dramatic effect on fertility. During pregnancy scanning it was found that pregnancy rates were often below optimum levels and there were more non-cycling cows and ovarian cysts than desirable. This is attributed to the poor levels of available copper and high levels of molybdenum and iron which lock out available copper. Other typical signs of copper deficiency are circles around the eyes and hair missing from the backs of the ears. Cases such as this were seen in the suckler herd before our supplementation. Zinc is vital for the metabolism, the immune system and the production of hormones. An issue in particular with purchased calves was ringworm, which can be caused by zinc deficiency.

This ailment is not only extremely contagious but can cause discomfort to the animal, and delay the sale through the market. Stephen and Susan sell 300 stores through Bakewell Market each year and it is critical that their cattle are in optimum condition. Selenium deficiency can cause muscle stiffness or "White Muscle Disease" in new borns and is common in muscular breeds such as British Blues, due to their increased requirement. Weak and stillborn calves can also be an issue. Fertility issues such as retained cleansings, abortions, cystic ovaries and uterine infections are also prevalent with Selenium deficiency. Excess Iron causes reduced feed intake and impairs weight gain. Aluminium in high levels reduces growth and feed conversion and molybdenum decreases the amount of crude protein which is absorbed into the small intestine. With the collective low levels of Sulphur, Copper, Zinc and Selenium and high levels of Molybdenum, Iron and Aluminium in the forage, you can easily understand why the cattle would have displayed symptoms of infertility and poor feed cases conversion. At scanning time January 2016, following nearly a year of JG custom blend minerals and Premier Cattle Drench, we saw a huge improvement in pregnancy rates, compared to January 2015. The percentage increase in pregnancy rates was improved by an impressive 10% and ovarian activity of the empty suckler cows was improved by 50%. We found almost no cases of uterine infection which were common in previous years.

The farm now suffers a lot less scours in calves and pneumonia is down to a minimum since the use of the formula. Calves born on the farm now have increased levels of immune boosting selenium and zinc from their mother, and the cows are now producing better quality colostrum, giving calves the best start they can have. Boost the cow and you will boost the calf too. Susan and Stephen have also noticed a distinct reduction in ringworm incidences in purchased calves, which was a noticeable problem before using our JG formula. Susan states "Every single animal on the farm receives JG minerals, calves from 3 months of age through to the suckler cows and not forgetting the bulls. We are extremely satisfied with the results and service JG Animal Health have offered us from their farm visits, forage analysis, customised formulas and back up support. Minerals can be a minefield and very often you are sold a mineral which is unsuitable for your animals' requirements. You can easily waste money on the wrong product. We are no longer using the quantity of minerals we previously used to feed on-farm, as with our current formula from Jonathan we are feeding a minimum rate of quality chelated minerals. The results of the minerals speak for themselves". When feeding minerals it is critical that a chelated formula is used. As with most cases it is all about "quality not quantity".

Due to the manufacturing process of chelated minerals it can make them seem more expensive, however, if the feed rate is considered and your sums done properly you will undoubtedly find that chelated is the only way forward and the results you see in productivity and health of your animals is un quantifiable.

JG Animal Health offers a complete service not just an off the shelf product manufactured for anybody's farm, in any area. We have extensive knowledge and experience and we are always happy to offer impartial advice regarding minerals for your stock.



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Forage Mineral Report

SAMPLE TYPE	Grass Silage	FARMER	S Hitchcock		
SAMPLE REF	88264	FIELD ID	---		
DISTRIBUTOR	J G Animal Health	POSTCODE	DE56 2DN		
DISTRIBUTOR'S REF	K Sutton	DATE	22 January 2015		

MINERAL ELEMENT (DM BASIS)	ASSAY	VERY LOW	LOW	MEAN	HIGH	VERY HIGH
Calcium Ca %	0.52	0.3	0.5	0.6	0.7	0.9
Phosphorus P %	0.16	0.2	0.3	0.35	0.4	0.55
Magnesium Mg %	0.20	0.1	0.15	0.2	0.25	0.4
Potassium K %	1.78	0.5	1.5	2	2.5	5
Sodium Na %	0.24	0.1	0.2	0.25	0.3	0.4
Chloride Cl %	0.71	0.3	0.6	1	1.4	2
Sulphur S %	0.15	0.1	0.15	0.2	0.25	0.4
Cation-Anion Balance meq/kg	266	50	100	200	300	500
Manganese Mn mg/kg	110	50	75	100	125	200
Copper Cu mg/kg	6.3	5	8	10	12	15
Zinc Zn mg/kg	36.4	25	40	60	80	130
Cobalt Co mg/kg	0.24	0.1	0.2	0.25	0.3	0.4
Iodine I mg/kg	1.25	0.25	0.5	1	1.5	2
Selenium Se mg/kg	0.05	0.05	0.1	0.15	0.2	0.25
Iron Fe mg/kg	903	50	100	150	200	350
Aluminium Al mg/kg	411	25	50	100	150	300
Molybdenum Mo mg/kg	1.37	0.1	0.35	0.8	1.25	2
Relative Copper Antagonism						
Soil Contamination Index						