

Black Sheep Farm Health

June 2020 Newsletter



The Field Report

The sunniest May on record has seen a good lambing progress to a great one for many of our clients. Touchwood, the stock seem to be coping well with in the dry weather despite grass starting to run into short supply. The challenge is now to keep those lambs and calves surviving and thriving; read on for more...

B Prepared - B Vitamins in Sheep

Vitamin B1

Vitamin B1 is made by rumen bacteria. Disruption to the rumen environment - most often by intensive creep feeding - causes these bacteria to be wiped out. This leads to an acute shortage of B1. Most often this is seen in weaned lambs of 4-8 months but can rarely occur in adult sheep.

B1 is important for brain health. Therefore, deficiency leads to 'cerebrocortical necrosis' or 'CCN'. Affected sheep first go blind, before showing other neurological signs such as wandering, stargazing and flexion of the neck, before progressing to hyperexcitability, seizures and death.



Typical flexion of the neck seen in CCN

Although the clinical signs are dramatic, responses to treatment if swift are generally good. High doses of B1, initially into the vein, and a steroid usually see recovery within a week. Affected sheep should be nursed in a quiet dark pen. Prevention should focus on maintaining a normal rumen flora i.e. sensible rates of creep feeding.

Vitamin B12

Vitamin B12 is needed by ruminants in order to derive energy from forage. Just like B1, it is manufactured by rumen bacteria. As cobalt is an important ingredient for this process (hence Vitamin B12's alternative name: 'cobalamin'), this trace element is necessary for sufficient VitB12 to be made. Sheep cannot store VitB12, so need a steady supply.

An animal's requirements for VitB12, and therefore for cobalt, are generally greater during growth than at other stages. So, a lamb will typically have greater demands than a ewe.



Lambs need adequate B12 to sustain momentum in growth as they move from a milk to grass based diet

Deficiency in B12 can therefore be caused by:

- Disruption to rumen flora.
- Grazing deficient in cobalt. (very common in Northumberland).

Lambs deficient in B12 will show ill-thrift and are more susceptible to common conditions such as gutworms and orf. In severe cases of 'pine', fleece quality deteriorates and weepy eyes develop. We very often diagnose VitB12 deficiency in 'straggler' back end lambs. Diagnosis is straightforward by means of blood sampling. If lambs are deficient, ewes may also be deficient with implications for fertility - typically these are sampled pre-tupping. Once deficiency is diagnosed, there are several solutions, each with their pros and cons (PTO). NB Some wormers contain cobalt but this is rarely sufficient to correct deficiency and we shouldn't be worming lambs routinely anyway.



B Vitamin Complexes

Several products such as 'VitBee', 'Neovit B Complex' and 'Introvit' exist as cocktails of B vitamins and other 'goodies'. These may be useful in the treatment of stress and improvement of feed conversion.



Intervention	Pros	Cons
Mineral drenches	<ul style="list-style-type: none"> • Low product cost • Quick acting oral dose of VitB12—can be combined with another longer acting source in actively deficient lambs. 	<ul style="list-style-type: none"> • Very short duration of effectiveness—less than 4 weeks. • Poorly regulated - variable quality of product. • Repeated drenches = more handling = more labour costs + more stress on handler/ livestock. • Drenching gun injuries.
Boluses	<ul style="list-style-type: none"> • Long acting (depending on bolus) • Can supply other trace elements if deficient e.g. Copper, Selenium. 	<ul style="list-style-type: none"> • Poorly regulated - variable quality of product. • Bolusing gun injuries. • Lambs must be 2 months old and therefore ruminating before application of bolus.
Long Acting VitB12 injection	<ul style="list-style-type: none"> • One handling - labour and time costs drastically reduced. • Long acting reliable release of VitB12 over 3 to 6 months (depending on dose). • Lower risk of injury compared to drenching or bolusing. 	<ul style="list-style-type: none"> • Relatively expensive product cost.

Other B vitamins related to animal health include:

Vitamin B5 'Pantothenic acid' - Pigs fed excessive bakery waste can develop deficiency in Vit B5. This results in a odd 'goose-stepping' gait.

Vitamin B7 'Biotin' - Biotin has an established role in maintaining foot health in dairy cows and supplementation results in lower rates of white line disease.

Aluminium Wound Spray in stock

We have plenty of aluminium spray in stock now the summer is upon us. It forms an effective seal for clean wounds such as tup head injuries and nicks at shearing time. This encourages healing and keeps flies off.

It has the added advantage of being antibiotic-free, therefore not contributing to the annual farm assurance antibiotic audit.



Drought Resilience on Livestock Farms

If the dry weather continues, it will have significant impacts on the forage supply, bedding supply and animal health. Lessons were learned in the dry summer of 2018 and many resources are available to help.

AHDB Managing cattle and sheep in extreme weather events

<https://ahdb.org.uk/knowledge-library/managing-cattle-and-sheep-during-extreme-weather-events>

AHDB Checklist for making best use of limited straw stocks

<https://ahdb.org.uk/knowledge-library/checklist-for-making-best-use-of-limited-straw-stocks>

NFU Lessons learnt from the 2018 agricultural drought

<https://www.nfuonline.com/nfu-online/science-and-environment/climate-change/221-1118-leasons-learnt-drought-2018-final/>

Farmers Weekly Advice on manging forage supplies in a drought

<https://www.fwi.co.uk/livestock/livestock-feed-nutrition/advice-managing-forage-supplies-drought>