

Farmer glad take part in

AT a meeting of the Allerdale Livestock Group in West Cumbria, the issues of trace element deficiencies in sheep came under discussion. This has led to a trial involving four members in blood-testing sample numbers of sheep and the subsequent use of boluses.

The trial will follow ewes as they lamb and the performance of lambs in the trial and those of comparable untreated ewes. The trial is backed by Livestock Northwest and the Cumbria Farmer network.

With a farm that includes rights on two of the highest commons in Cumbria and possibly the UK, Stanley Jackson of Nook Farm, Rostwaite, Borrowdale, welcomed the chance to take part in the trial looking at mineral deficiencies in sheep.

A first-generation farmer and a National Trust tenant, Stanley farms just under 243ha (600 acres) mostly hill land, with some lower intake land lying a few miles away near Keswick.

The hill land is rough grazing with rocky outcrops and the grazing on the Langstrath and Combe commons runs up towards 915m (3,000ft) above sea level.

Nook Farm is under a Lake District ESA agreement and, all being well, will transfer to an

SHEEP

Concerns from members of a Cumbrian livestock group about trace element deficiencies have led to a sheep trial testing the impact of supplements. Neil Ryder reports

HLS agreement next year when the ESA scheme comes to an end.

His stock includes about 1,000 Herdwick breeding ewes, plus about 100 three-quarter Texel crossbred ewes. There are also about 15 Limousin-cross British Blue suckler cows, all spring-calving with calves sold at eight to ten months of age.

While the trade for suckled beef calves has improved recently, Mr Jackson said the cattle are kept largely as an aid to grazing management.



HILL FARMER: Stanley Jackson

All the ewes are scanned, with the Texel crosses lambing indoors from about March 15 and the fell sheep lambing outside from April 15.

"As far as possible, we want a good single lamb on our Herdwick ewes, but a small number of twins are needed for fostering to ewes that have lost their own lambs," said Stanley.

"We always used to give cobalt to our Herdwick shearlings at tupping time ten to 15 years ago, but stopped largely because the price of cobalt went sky-high and the sheep industry was in the doldrums. Now sheep are a little more profitable, there is more scope to spend a little on improving things.

"We did wonder whether we were wasting money using cobalt, but did use some other supplements. Then over the past couple of years, we noticed that some of our shearing ewes were a little below par and wondered whether this was partly down to cobalt deficiency.

"This is a very wet farm – rainfall is about 120 inches annually – and fluke is an ongoing problem. Both cattle

Blood tests

THE blood-testing part of the trial looked at the two key elements of copper and selenium said veterinary surgeon James Frayne, of the Millcroft Veterinary Practice, Cockermouth.

Outlining the importance of the three elements he notes:

Copper deficiency is classically linked to swayback in lambs born to ewes deficient in copper during pregnancy. It is also linked to a number of other conditions, including fertility problems, poor quality steely wool and often shows as chocolate-coloured wool on black-headed sheep.

The problem is usually the consequence of copper interacting with sulphur, molybdenum and iron during digestion,

which produces a secondary deficiency.

Primary deficiency owing to a low copper content in the soil is very rare in the UK, though was found on one of the farms in the trial.

Selenium-deficiency is linked to white muscle disease in lambs and in milder cases to stiff or weak lambs. It is also associated with fertility problems.

Mr Frayne said that cobalt

deficiency is as common as the other two minerals, and is mainly seen as a problem of weaned, growing lambs that are just not performing very well. It may also arise where lambs are scoured due to worm infestations.

He said: "In general, vets feel that boluses are better than any other method of mineral supplementation as we know exactly what each individual animal is getting and there is sustainable

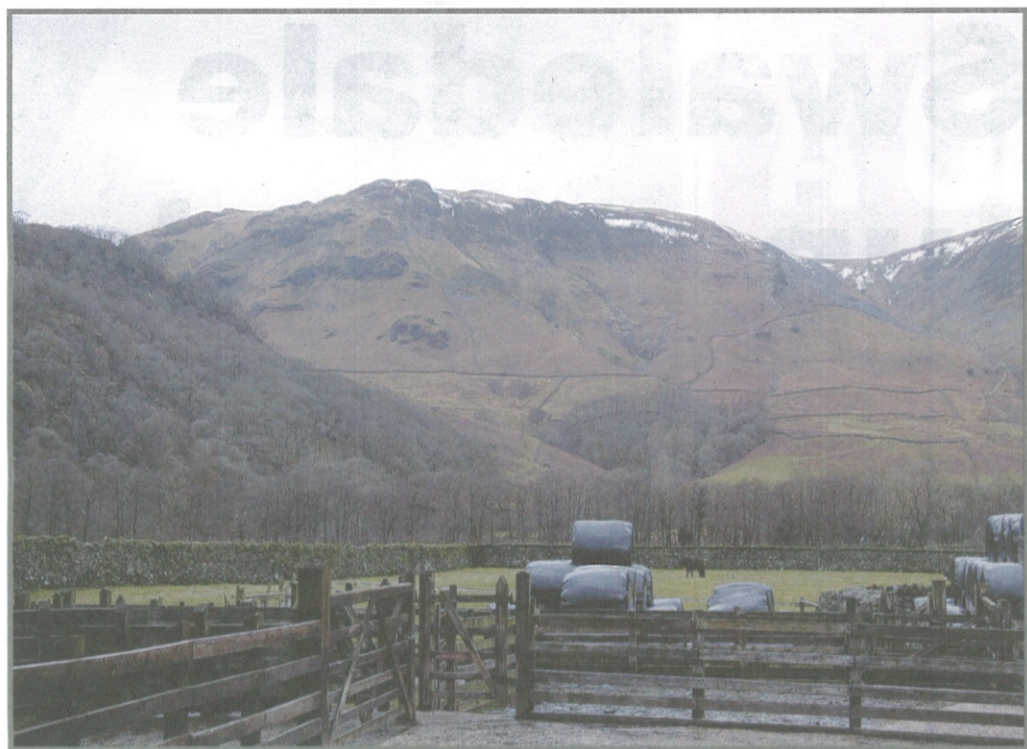
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SHEEP TRIAL: Stanley Jackson administering a bolus to his Herdwick sheep – Pictures: Neil Ryder

of chance to sheep trials



IMPROVING THE HERD : Fell grazing at Nook Farm, Borrowdale, in Cumbria

and sheep are regularly treated against fluke and worms.

"Then I was asked if we would like to take part in the trial, which involved taking blood samples from some sheep and assessing the value of boluses provided under the scheme.

"Rather than just picking our worst sheep, we took a little time to select a mix of early

and mid-lambing ewes, as well as some fit and some not so fit sheep.

"These are all marked with management tags and put to a mix of tups. We also used a little oral copper treatment as we wondered whether there might also be problem with copper deficiency. The blood tests had indicated that selenium levels were quite good, but that there

could be a problem with copper. The boluses already include cobalt.

"Apart from trial treatment, all the hill sheep are managed in exactly the same way and the two compared including the thriftiness of the lambs produced. We routinely give all our hill sheep a drench with a lot of vitamin D3 and sometimes use one with copper."

for minerals

release over a known period.

"Drenches are very popular among farmers, especially for selenium and copper, but do not give sustainable protection.

"Lick buckets are also very popular, but are very hit and miss as it is impossible to know what individual sheep are taking and are therefore unreliable as a means of mineral supplementation.

"Capsules are also sometimes used, especially for copper, and work fairly well but cannot give the long-term benefits of boluses," said Mr Frayne.

"Overall, in most cases, copper supplementation can be beneficial, but there is a big caveat that too much copper has high toxicity with some breeds much more vulnerable than others.

"Suffolk, Texels, and Blue-faced Leicesters are particularly susceptible to copper poisoning, whereas most of the hardier breeds and crosses, such as the Herdwick and Mules, can cope much better.

"This is why, when we deal with copper toxicity, that we often find it is the expensive rams that are killed but the lower value females have coped reasonably well. Cases of cop-

per poisoning are becoming more common and it is important to take qualified advice before giving copper to sheep.

"As part of the project, three farmers from within the group, and one from outside have been given boluses to administer before tupping and asked to mark the sheep given the boluses to use on 50-100 average ewes.

"We will follow their progress in relation to the main flock, including assessing the vigour and growth of their lambs. The results will be reported back to



ADVICE: James Frayne, of the Mill Croft Veterinary Practice in Cockermouth

the group."

● The four farms taking part in the trial are:

Thomas Bell, of Hill Top, St John's Vale – Cheviot and Swaledale flock. The farmer is keen to test average sheep in flocks. Blood tests showed normal selenium levels, but there is some evidence of secondary copper deficiency.

Stanley Jackson, of Nook Farm, Borrowdale – Herdwick hill flock. Test showed very high selenium levels, though these are unlikely to be problematic. There is strong evidence of secondary copper deficiency.

Andrew Nicholson, of Swinsdale Farm, Lorton – large Swaledale flock and some Herdwicks. It is in the next valley to Nook Farm and has a similar high selenium and secondary copper deficiency.

Kevin Holliday, of Strudda Bank Farm, Calderbridge – Herdwicks and Swaledales. There are very low levels of selenium and some low levels of secondary copper deficiency.

The farm is unusual in that soil tests showed low copper levels indicating a problem with primary copper deficiency.