THE UNIVERSITY of EDINBURGH
The Royal (Dick) School of Veterinary Studies

Farm Animal Practice

December 2014

Now that the cold and wet weather is properly upon us, we welcome you to our winter edition of the Farm Animal Practice Newsletter. We hope that you find the articles on routine preventative foot trimming, liver fluke and foot-rot topical and useful, and that they'll provide you some reading material for those long winter nights by the fire.
We are also pleased to introduce Alex Corbishley to you all, who will join us as a Lecturer in Farm Animal Practice in January 2015.

Alex Corbishley joins the Farm Animal Practice team in January

After graduating from vet school, Alex returned to his home county of Northamptonshire to work as a farm vet in a rural mixed practice. Sitting at the crossroads between cattle country and East Anglia, he worked with a variety of mixed farming systems including large lowland flocks and beef units running alongside substantial arable enterprises. After three years, he moved to the Shropshire/Cheshire border to work in a specialist farm practice with a major focus on dairy, covering a vast area from Telford in the south, to Lancaster in the north. During this time he also developed a number of herd health reporting tools to monitor milk quality and composition. With plenty of competition between vets in the North West of England, he learnt the importance of ensuring that the farm vet is always adding value for the client and that advice is focused on making life simpler, rather than adding ever more layers of complexity.

Alex currently lives in Peebles with his wife, three daughters and two spaniels where he has spent the past three years studying for a PhD in livestock vaccines at the Roslin and Moredun Research Institutes. His future research interests will focus on understanding vaccine performance in the field and developing new vaccine technologies to prevent losses on the farm, protect public health and reduce antibiotic use.

Benefits of routine preventative foot trimming are numerous

Routine preventative foot trimming using the 'Dutch 5 step method' is common practice in the national dairy herd these days and its economic benefits and impact on cow welfare are well documented. Unfortunately this extremely important area of cow management doesn't appear to have been adopted so widely by the beef sector. Also, there has been little research into lameness and its long term health and economic effects for beef cattle and I (Martin) cry "why not?".

The average cost of one case of lameness for a dairy cow is estimated to be around £178. The equivalent figure is not fully understood for a beef cow but would take into account treatment and time costs, increased feed costs alongside lowered growth rates/carcass down-grading and also future fertility culls. It is therefore easy to hypothesise that, with the average preventative trim costing around £10 to £15 per cow, routine foot trimming will quickly pay its own way in any beef herd regardless of current lameness levels.

The benefits of good preventative foot trimming include:

- Returning feet to a natural balanced shape, biomechanically better supporting the cow's weight and decreasing the likelihood of future mobility issues.
- Removing dead and diseased horn and other tissue to promote the growth of healthy new horn.
- Removing horn to allow proper drainage and flow of muck and foreign bodies and to discourage the formation of abscesses or 'foul' by decreasing the opportunity for anaerobic environment development.
- Identification and prompt treatment of early or subclinical lesions in order to reduce any pain caused and reduce future lameness costs.
- Reduced usage of treatments including antibiotics

Liver Fluke

Following a relatively dry summer the predicted risk of disease due to liver fluke is low to moderate, however this risk will vary from farm to farm. Careful monitoring, effective management practices and strategic treatment will help maintain a low risk on your farm. This will reduce the financial losses associated with fluke infection such as decreased liveweight gains, higher barren rates (especially in sheep) and reduced milk production in dairy cattle.

Establishing if liver fluke is present on your farm is the first step but should be done with the correct detection methods. Serological ELISA tests, faecal egg counts and abattoir feedback can be used to monitor for fluke exposure in your flock/herd. This is particularly advisable if you have no recent information on the presence of fluke on your farm. It can also avoid unnecessary treatments. Not only are unnecessary treatments cost without benefit but overuse of triclabendazole can contribute to the development of triclabendazole resistance, which has been reported on several farms in our practice. As flukicide resistance is becoming more widespread is it important to continue to monitor fluke levels post treatment to determine if the product used has been effective. Now is the time of year to put a liver fluke plan in place, please contact the practice if you would like to discuss testing, your current treatment protocol and/or ways to reduce fluke exposure to your stock.

Test	Advantages	Disadvantages	Use
Faecal egg count	Relatively cheap and quick	Requires samples from multiple animals. Will only detect adult liver fluke. False negatives are possible	Detecting chronic infection. Testing the effectiveness of treatment. Determining the need for treatment of housed cattle or sheep and cattle in the late winter and spring.
Liver enzymes	Levels rise relatively early in infection	Elevated liver enzymes are not specific to liver fluke infection	Supportive evidence for the diagnosis of acute fluke infection
Serology (blood)	Can detect infection sooner than egg counts. May remain positive for many months after successful treatment	Multiple animals must be tested. May remain positive for many months after successful treatment	Determining whether fluke is present on a farm. Determining the need for treatment in the autumn (sampling of lambs).
Serology (bulk milk)	Cheap. Minimum effort	Confined to dairy herds. May remain positive for many months after successful treatment	Determining whether fluke is present on a farm.
Abattoir feedback	Free. Ongoing monitoring as different batches of animals are submitted	Abattoir identification of fluke lesions on the liver is sometimes mistaken. Not available for those not selling direct to slaughter	Useful tool for monitoring the levels of exposure to fluke on a farm.
Post-mortem	Gold-standard diagnosis	Requires a dead animal.	Useful for detecting acute disease in sheep (post-mortem of sudden deaths in the autumn). Also very useful to investigate suspected treatment failure (animals dying despite treatment)

Foot-rot in Sheep

Foot-rot is one of the most common causes of lameness in sheep in the UK with significant welfare and production impacts. One estimate placed the cost of foot-rot to the national flock at £24 million per year. Treating foot-rot promptly and correctly results in a more rapid return to soundness. The autumn period (once lambs have left the farm and sheep numbers are lower) is the ideal time to start tackling the problem on a flock level. **Foot-rot is an infectious disease** caused by the bacteria *Dichelobacter nodosus* ; as such the correct treatment is an injection of long-acting oxytetracycline and topical treatment with oxytetracycline spray. Paring the foot will not help, has been shown to delay healing, and may spread the disease on the hoof shears. Foot-rot can be identified as underrunning of the hoof horn which begins between the toes. It also has a characteristic smell.

The most suitable flock control measures will vary from flock to flock and can include use of clean grazing, foot-bathing, the foot-rot vaccine (Footvax), culling of persistently lame sheep and isolation and treatment of infected individuals. Obviously for these measures to be effective the cause of lameness must be correctly identified.

Please contact the practice for advice on correctly identifying causes of lameness, treatments for individual sheep and control strategies tailored to your flock.

Foot-rot: underrunning of the horn begins between the digits

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