Serious Maedi Visna Infection in a Lowland Flock

During autumn 2008 maedi visna was diagnosed in a flock of 1,000 ewes producing finished lambs. The problem came to light when a thin ewe was submitted to a SAC Disease Surveillance Centre for postmortem. The lungs of the ewe were affected with Jaagsiekte, (OPA), but in addition she was antibody positive for maedi visna. The shepherd reported that over the previous few years there had been problems with high numbers of deaths in young lambs and ewes with no milk. In addition lamb growth rates were poor and they were taking one to two months longer than expected to fatten. A second ewe was examined after she developed an unusual gait. She also tended to collapse on her front legs when driven. Damage caused by maedi visna was found in her lungs and spine. A thin gimmer was postmortemed and found to have Johnes disease in addition to changes in her lungs. Further blood sampling was carried out and 70% of the ewes tested were found to be positive for maedi visna. Eight of sixteen tups also tested positive.

This case highlights the different symptoms that can be seen with maedi visna. It is known that infection with the virus can make other conditions such as Jaagsiekte worse. It also illustrates the insidious spread of the virus that had occurred within the flock before a diagnosis was made. It is important to pick up new infections as soon as possible in order to prevent this. Screening of sheep in related flocks has lead to the suspension of MV accredited status on two premises.

Unknown to the farmer maedi visna had been causing significant losses in this flock for several years. It is likely that the entire flock will be culled later this year.

Bluetongue at home and abroad

It has been more than two years since reports first emerged of bluetongue virus disease in southern Holland during the summer of 2006. At that time, northern Europe was largely unprepared for what was regarded by many as an exotic disease. Conventional wisdom suggested that only extreme climate change would allow the spread of this midge-borne infection at our latitudes. However, the bluetongue virus strain BTV-8, has shown itself to be quite capable of spreading in a temperate climate and of surviving the cooler winter months on the other side of the channel.

The repercussions for the European farming industry have been enormous. Not only in terms of animal sickness and deaths during outbreaks, but also through more chronic effects that bluetongue has had on the productivity and fertility of recovered stock. Add to this, the restrictions that the disease has placed on trade and the costs of disease control, and the final bill for the bluetongue outbreak in northern Europe is likely to be measured in hundreds of millions of euros.

The zone affected by BTV-8 regulations currently stretches from northern Spain to southern Sweden, and from Poland in the east to Wales in the west. Alarmingly another strain of the virus, BTV-1 is currently making in-roads into southwest France, and as a result, a rapidly expanding area is now under restrictions for both bluetongue serotypes.

2008 saw the start of bluetongue vaccination campaigns in all the countries previously affected by the disease. Arrangements for this have varied, with some countries, such as England, opting for a voluntary scheme, while others have made vaccination compulsory. While the situation in countries such as Holland and Belgium has been greatly helped by vaccination, elsewhere, the epidemic has continued to spread into previously unaffected regions. In France alone they have seen over 15,000 new cases and Sweden recorded its first outbreaks of the disease.

At time of writing, no new outbreaks of bluetongue disease have yet emerged in Britain since 2007. However the virus has been identified in animals that had recently been imported from continental Europe. Although this trade is legal and cannot be stopped, the importation of stock from other disease affected areas is strongly discouraged by vets and farmers leaders alike.

In Scotland a decision was made for compulsory vaccination of all sheep and cattle, along with the voluntary vaccination of other ruminant species. This will take place during the midge-free months of November to April and will be partially funded by the Scottish Government.

It remains to be seen whether vaccination in other parts of Europe will be enough to slow the advance of bluetongue on the continent. Looking further ahead many people wonder whether northern Europe will ever be able to regain bluetongue-free status or if the infection is here to stay.

Liver fluke risk

Dr Sandy Clark, SAC Veterinary Services, Thurso

A dramatic rise has been recorded in the number of outbreaks of liver fluke infection in cattle and sheep over the past five years. Many farms previously thought free from the parasite are now affected. Deaths have been recorded in all ages of cattle and sheep associated with fasciolosis. Reports from slaughterhouses indicate increased numbers of fluke damaged livers being condemned indicating inadequate control. Higher daily temperatures and wetter weather are part of the reason for this, because the life cycle of the fluke is dependent on spending time within a mud snail. The mud snail requires damp areas and is especially active when there is no frost. Some stock owners have had to stop using some pastures where there have been proven deaths due to acute liver fluke infection for which there is no prevention.

Early predictions for 2009 are that high levels of infection are likely to be maintained on pasture which will pose a threat to livestock with the risk of sudden deaths in the winter in sheep due to acute disease followed by chronic disease in sheep and cattle throughout the winter resulting in poor growth rates and production.

It is vital that sheep and cattle which are at risk are treated appropriately with a product capable of removing both mature and immature flukes and vaccinated against Black disease a clostridial disease associated with fluke infection. The product selected must be fully effective against all stages of the parasite to avoid any liver damage that could be detected at meat inspection.

Farmers are strongly advised to seek veterinary advice when treating stock for liver fluke infection since the timing and product used can make the difference between profit and loss.

Exporting?

If sheep or goats are to be exported it is important to find out the current testing and health requirements of the importing country as far in advance as possible. These can be obtained through the country's animal health office. Your local Animal Health Office may also be of assistance.

A certificate of MV/CAE accredited status will be required by some countries.

Your PSGHS team at a glance

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PSGHSNEWS

Premium Sheep and Goat Health Scheme in conjunction with SAC

SAC

Scrapie Genotyping

The NSP scheme closed on 31st December.

Many sheep/goat breeders will want to continue to get information on genotypes and SAC can offer this service through PSGHS. When submitting samples for MV/CAE, etc just ask for scrapie genotying as well. It could save the cost of another vet visit.

If you want scrapie genotyping let your vet know in advance so that they can bring the correct blood tubes.

Meet the New PSGHS Advisory Board

Brian Hosie *SAC Head of Veterinary Services* Ian Pritchard *SAC Health Schemes Manager*
Jonathan Barber *NSA National Chairman* John Yates *Chief Executive, Texel Society*
Dr Lewis McClinton *Chief Executive, Suffolk Society* Debbie McGowan *Representing Commercial Breeders* Iain Smith *Representing Sheep Health Associations* Kathryn Dun *Independent Sheep Veterinary Surgeon* Nick Clayton *Independent Goat Veterinary Surgeon*

There are many new faces on the PSGHS Advisory Board. The two new chief executives of the Texel and Suffolk societies have been appointed by their respective breed councils. These breeds have representation on the board as they have the largest numbers of ewes in the health scheme.
As not all breeds can be represented on the board, representations to the advisory board can be made through the NSA.

We are also fortunate in having two independent vets on the board – one representing the interest of the sheep industry and the other the goat industry.

PSGHS looks forward to working with the new board and the sheep and goat industries.

March 2009 edition

Premium Sheep & Goat Health Schemes

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SAC Consulting

Veterinary Use on Farm

Dr Catherine Milne & Miss Siân Ringrose
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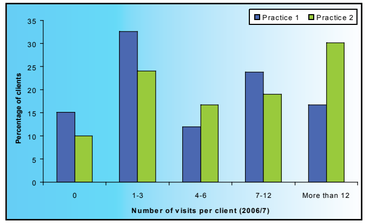
Everyone knows that veterinary surgeons play a very important role in the production of healthy livestock. Individual farmers know what they use their own vet for – but usually don't know how it compares with other farmers. A study into veterinary expenditures by cattle and sheep farmers in two Scottish veterinary practice areas is on-going, with funding from the Scottish Government. The practices supply anonymised details of all transactions with their farming clients over the period of a year. Each transaction is categorised according to:

1. Primary purpose e.g. prevention, treatment, diagnosis
2. The type of product/service e.g. antibiotic, wormer, vaccine, visit, examination
3. Relevant enterprise e.g. suckler cow, breeding sheep, store cattle

One practice is also able to supply estimated livestock numbers for each client. Summarised here are some of the study results for the year June 2006–May 2007. The number of visits made to a farm by the vet can give an indication of the level of veterinary involvement and the result for the two study practices 06/07 are shown in Figure 1. Vets from Practice 1 typically visited their clients 1-3 times during the year. By comparison, in Practice 2 almost 25% of clients are visited 1-3 times, whilst 30% of their clients had more than 12 visits. A possible concern is that 10-15% of clients farms were not visited – though some of these will have very low stock numbers and stock may have been seen at the surgery.

Figure 1. Number of visits 06-07 by Practice



Using the livestock numbers provided by Practice 1 the average expenditure per ewe was calculated and the results can be seen in Table 1. What can be seen is that the average and maximum expenditure per head is greater for small flock sizes. This is to be expected since if one animal requires intensive treatment, such as a caesarean, the average cost becomes heavily biased – whereas it can be absorbed in large flocks. In this sample , some of the small flocks are also pedigree and may therefore use the vet more e.g. for blood testing, thus incurring higher expenditures.

Table 1: Number of ewes in flock

	Average £/head	Maximum £/head	Minimum £/head
1-50	10.13	58.16	0.00
51-100	3.68	20.49	0.00
101-200	2.28	9.94	0.00
201-550	3.46	6.78	0.24
551+	0.66	1.07	0.45

The authors are very grateful to the on-going support from the veterinary practices which provide the data for this study and to the Scottish Government for funding this work.

Scrapie Monitoring Scheme

SAC officially took over the administration of the Scrapie Monitoring Scheme (SMS) from Defra on January 1st. All new certificates will now be issued through PSGHS.

Shows and sales are under the auspicies of Animal Health and the rules and regulations for these have not changed.

It is essential that you notify Defra that you want your details transferred to SAC. If you do not SAC will not know you are a current member. In November all current members received a letter from Defra requesting authorisation of transfer of data.

Telephone the PSGHS office on 01463 226995 if you have any queries about the new SMS.

Control of lameness in sheep

B Hosie

Now is the time to review your approach to lameness in your flocks with advice from your vet or adviser. Lameness in sheep costs £2.00 - £2.50 per ewe for treatment including £1 for labour (10 minutes per sheep) plus £3 per ewe for lost production to lower lambing percentage. The total of £5.50 increases by 50p for every ewe per 100 culled early because of lameness. At this time of the year we need to get on top of lameness to avoid problems at housing and lambing.

Diagnosis

Effective management of lameness depends on accurate diagnosis based on the examination of a significant number of sheep (over 30). Lesions of scald are generally restricted to the digital skin. Virulent footrot leads to underrunning of the sole of the hoof in a high proportion of cases. Contagious Ovine Digital Dermatitis (CODD) characteristically begins with a lesion in the skin at the top of the hoof wall. You should seek a veterinary diagnosis to differentiate CODD from footrot and other foot conditions. Remember Bluetongue causes sheep to be lame.

Treatment/Control

The choice of treatment and control option depends on the quality of handling facilities particularly of the footbath; the availability of trained staff and the opportunity to segregate affected sheep from those not infected. Only pare feet if it is absolutely necessary, for example, feet that are misshapen or before treatment in a footbath. If you are not sure of the diagnosis seek veterinary advice.

Sheep must stand in footbaths containing zinc sulphate or antibiotics for longer than if formalin is being used. They should not enter a footbath with dirty feet, as the soil will inactivate the chemicals. Also after leaving the footbath, the sheep need to stand on hard-standing or stones to allow the chemicals to dry on to the hoof. Walking out on to muddy paddocks or wet grass will wash off the expensive chemicals. Points to consider

1. Can the sheep walk along a hard roadway, concrete or rounded pebbles to knock off the soil before entering the handling pens?
2. If possible, provision should be made for 2 baths so that sheep can walk through clean water to clean the feet before entering the footbath containing the chemical.
3. When deciding on the size of footbath required, a compromise has to be made between the number of sheep it will hold (important if zinc sulphate is to be used) and the cost of filling the bath to the required depth.
4. The bath must be designed to ensure that all sheep place all four feet in the bath.
5. A hard-standing area should be provided for animals as they leave the footbath. This can be concrete or we have found that rounded stones are an effective substitute. The sheep must stand on the concrete or stones for at least half an hour to allow the chemicals to dry onto the hoof.

Note: 1.Formalin is cheap and probably the most practical treatment for scald as animals only need to walk through it slowly. It should be used at a 3% solution and never more than 5%. Remember formalin is inactivated by organic material and therefore the baths need to be changed regularly when mud or faeces contaminate them.
2. Zinc Sulphate is more expensive than formalin but it is not irritant and is more pleasant to use. As it remains active in the presence of organic matter it can be reused. The recommended strength is 10%. The disadvantage of zinc sulphate is that sheep need to stand in it for 30 minutes although some manufacturers claim shorter standing periods are effective for their product proprietary brands.

It is a waste of time and effort to footbath if it is raining and the conditions are muddy. Do not alternate between formalin and zinc sulphate as formalin will harden hoof horn and so restrict uptake of zinc.

Segregate infected sheep from those not infected. Treat them as a hospital flock and walk them through a footbath every 5 days. Give continually lame sheep an antibiotic injection or vaccine. Cull those that fail to respond.

Vaccination of the flock is advisable if a high proportion of the flock is infected with footrot and there is a history of footrot control failing due to wet land, susceptible breeds and inadequate handling facilities. A single dose of vaccine should result in a clinical response in two to three days. Protection is obtained within three to four weeks.

Quarantine

Any new animal should be quarantined for at least four weeks on arrival. Inspect them for evidence of footrot and CODD. Any lame sheep should have a diagnosis made and appropriate treatment given. The quarantined sheep should be walked through formalin once every week during the quarantine period. Culling is essential for brought-in animals that fail to respond to treatment. If any sheep are found to be lame on arrival, they should be separated and the vet called to discuss diagnosis, the cost of treatment and possible culling.

Premium Sheep and Goat Health Scheme for Enzootic Abortion Free Flocks

Enzootic abortion of ewes (EAE) is the most frequently diagnosed cause of abortion in the UK. An outbreak of EAE can result in considerable economic loss as between 5 and 30% of ewes may abort. Infection is most commonly introduced to a flock through the purchase of infected replacements. Unfortunately many infected ewes will be negative on a blood test until after their next lambing. This means that it is not possible to reliably screen purchased ewes for evidence of infection. By the time these sheep test positive it is too late and EAE will already have spread to other ewes in the flock.

The PSGHS for EAE free flocks is designed not only to screen your own flock for EAE but provides a national pool of EAE accredited free breeding stock from which to source replacements. In order to join the scheme a proportion of aborted and lambed ewes need to be blood sampled by your vet during the three months after lambing. For example in year one, for a flock of 1,000 ewes, 86 ewes will have to be bled. If these results are negative then in year two 44 ewes will be sampled. If this test is also clear the flock will be awarded EAE accredited status. Certificates will be issued in subsequent years following a negative annual blood test of 44 ewes. Positive results can act as an early warning indicating that EAE has been introduced to the flock. This allows you to take steps to stop it spreading and reduce potential losses. Depending on demand EAE accredited ewes can sell for a premium and accredited cast ewes can be more attractive to buyers. Another benefit is that the cost of the laboratory examination of aborted lambs is included in the membership fee. In addition to looking for signs of EAE they will be checked for other causes of abortion such as Toxoplasmosis, Campylobacter, Listeriosis and Salmonella amongst others. A diagnosis provides valuable information and allows you to help control the problem and plan how to prevent it in the future. Many of the causes of abortion can cause serious illness in people and so it is important to know what is present on your farm.

Further information on joining the PSGHS for EAE free flocks can be obtained from the PSGHS Office or from the website *www.sac.ac.uk/sghs*.

Changes for 2009

The Premium Sheep and Goat Health Scheme is challenged by the sheep and goat industry to deliver cost effective health schemes.

To ensure this happens a new database is being installed, paperwork issued is being reduced and this will help deliver efficiencies to the industry.

An integral part of the MV scheme is show, sale and farm inspections and to provide value for money to our members these were put out to tender in January. The inspections for shows and sales will be delivered by SAI Global and the farm inspections by SFQC (and its collaborative partners) from April 1st 2009.

Although challenged with rising costs, efficiencies in operation allows the MV and CAE membership fees to be maintained at the same level as the last two years.

Many clients in the EAE scheme will benefit from changes.

Flocks in the MV scheme can also test for EAE for the cost of the blood test.

Dr Sandy Clark

Well known, Thurso based vet Dr Sandy Clark died just before Christmas. Sandy joined SAC in 1989 after a period in general practice in Conon Bridge. Starting as a Veterinary Investigation Officer at the Disease Surveillance Centre in Thurso he became manager in 1996. He was a very good communicator and popular speaker at farmer meetings as well as writing numerous articles in the farming press alerting livestock keepers to disease risks and the steps taken to avert problems.

At the time of Sandy's arrival in Thurso the Highlands and Islands Sheep Health Association (HISHA) had just been formed and programmes to eradicate EAE and BVD in Shetland were underway. Sandy was quick to become involved and was a member of the team that went on to develop, with Orkney Livestock Association, a BVD eradication scheme. He took a special interest in scrapie, working closely with the Shetland Flock Health Association, and helped Shetland to dramatically reduce what had been a significant health and welfare problem.

During 2008 Sandy was in regular contact with Defra as the Scrapie Monitoring Scheme moved from Defra to SAC. In the months prior to his death he was SAC's Veterinary Specialist for the Maedi Visna(MV) scheme.

In his spare time Sandy shared a love of gardening with his wife Audrey and their work was regularly admired when their garden was opened to the public. Sandy Clark will be greatly missed by his colleagues and friends in the farming community. Our sympathy goes to Audrey, Sandy's children, Catriona and Iain, his step children Amanda and Catriona, and his mother Jean who lives in his beloved Mull.