

PSGHS NEWS

Premium Sheep and Goat Health Scheme in conjunction with SRUC



January 2015

Caseous lymphadenitis (CLA) – a threat to sheep and goats

- Caseous lymphadenitis (CLA) was imported into the UK with goats in the 1980s. The disease is now widespread in sheep flocks and goat herds throughout the country. CLA is a chronic bacterial disease of sheep and goats caused by the highly infectious bacterium *Corynebacterium pseudotuberculosis*. Abscesses form in animal's lymph nodes and in Britain it is usually the lymph nodes around the head and neck which are affected. These abscesses appear as lumps in the skin.
- CLA can also lead to abscesses in internal organs including the lungs which can lead to breathing difficulties and wasting.
- Antibiotic treatment for CLA is usually unsuccessful. Lancing the abscesses only results in contamination of the environment and spread of the disease.
- The main source of infection is direct contact with pus from CLA lesions.
- The disease is spread when infected sheep are introduced to a clean flock or herd.
- CLA is infectious to humans.
- CLA lesions in carcasses can lead to carcass condemnations or at least require carcass trimming at the abattoir.
- Not all sheep and goats with chronic lumps are affected by CLA. If the disease is suspected your vet should be called. They will probably take samples from the lumps and blood samples from affected animals.
- A positive blood test result or culture of *C. pseudotuberculosis* confirms the diagnosis of CLA.
- SACCVS and Moredun developed the CLA diagnostic blood test and we advise that this test is used to screen purchased sheep prior to their introduction to disease free flocks.
- There is no proprietary vaccine for CLA available in the UK. It is possible to import commercial vaccines for affected flocks under a special licence from the Veterinary Medicines Directorate, a division of Defra.
- Currently Moredun is developing a CLA vaccine with its subsidiary company Inocul8Ltd.



- 1 Caseous lymphadenitis (CLA) – a threat to sheep and goats
- 2 Ewe Ear Numbers now required when testing for EAE
- 2 Pre and Post Sale Screening - To Test or Not to Test?
- 3 Adding EAE Supervised Replacements to an EAE Accredited Flock?
- 3 Update on Sheep Scab
- 4 Maedi visna (MV) diagnostic test
- 4 Direct Debit Payment
- 4 Are You Importing Sheep or Goats?
- 5 Caprine arthritis encephalitis (CAE) in dairy herds
- 5 The Essie Flock
- 6 Non-accredited sheep and goats - what is the risk?
- 6 Need to change your MV/CAE test date from autumn to summer?
- 6 Scrapie Genotyping
- 7 Should I be testing my show team for MV/CAE at the end of the show season?
- 7 Scrapie Monitoring Scheme (SMS)
- 8 Future Sheep and Goat Farmers
- 8 Websites
- 8 Embryo transfer recipients – make sure yours are free of MV



© SRUC 2015

Ian Pritchard Editor

Premium Sheep and Goat Health Schemes, Drummondhill, Stratherrick Road, Inverness IV2 4JZ

T: 01463226995 E: sghs@sac.co.uk W: www.sheepandgoathealth.co.uk

SAC Consulting is a division of SRUC. SRUC is a charity registered in Scotland, No. SC003712

Ewe Ear Numbers now required when testing for EAE

It is always important that the paperwork that accompanies your blood samples is filled out correctly as this saves time and helps us to process the samples faster.

In the past there has been no requirement to record the ear numbers of ewes sampled as part of qualifying and annual flock tests for EAE. This is changing and from 2015 the individual ear number should be written down when a blood sample is collected. In addition the ear numbers of all added ewe replacements will have to be listed.

Tagging regulations mean that any breeding ewes born or identified after 31/12/09 should now have full EID.

Recording ear numbers should not add substantially to the time taken to carry out testing and it has advantages particularly if problems arise. It will allow individual animals to be re-tested if required (rather than the whole group) and could assist in investigation of flock breakdowns e.g. if added animal are implicated.



Pre and Post Sale Screening - To Test or Not to Test?

Purchased replacements, whether ewes or rams, should be an investment for the future and not a potentially unforeseen cost to the business. You may be involved in both buying and selling and it helps to consider things from both sides of the fence. Bull health declarations have become an accepted part of cattle sales. Should the same apply to rams? Pre-sale testing could add value to your stock - but can you sell this idea to your customers? What if it was you doing the buying? Rather than hoping for the best a more logical approach would be to decide where your priorities lie. You will need to know the following to decide what to focus on:

- What diseases are already present in your flock.
- Whether plans are in place to control/reduce/eradicate existing diseases.
- Which diseases you want to avoid introducing and which is your main concern.
- What tests are available.
- Budget available for testing.

Once you have decided which disease(s) you want to avoid try and source accredited stock (EAE, MV) or animals that have been tested pre-sale. This will reduce the risk of disease being introduced to your flock and the inconvenience of having to return animals in the event of positive results. Pre sale testing encourages buyer confidence but remember that infection can occur at a later date either on the farm of origin, at markets or in transit. For this reason you may wish to consider follow up post sale testing for CLA/MV as part of routine quarantine. Any illness or deaths in purchased sheep should also be investigated.

Blood tests are available to screen sheep pre or post sale for Border Disease virus/antibody, CLA, MV and Johnes disease. A better option for the latter may be to collect faecal samples which can be tested by PCR in pools of up to 10. Unfortunately no blood test is available for OPA (Jaagsiekte). Your vet may be able to use an ultrasound scanner to check the lungs. Don't forget to also plan quarantine treatments to deal with resistant worms, fluke, sheep scab, footrot etc.



Adding EAE Supervised Replacements to an EAE Accredited Flock?

It is not always easy to source EAE accredited replacements. The rules currently state that “only ewes of a similar or higher status may be added to a flock – EAE accredited flocks must only purchase EAE accredited replacements.” Where accredited replacements are impossible to find the next best solution is to purchase supervised replacements. If you are in this position then this should be indicated on the form that accompanies your blood samples. The following steps should be carried out:

1. Carry out your annual flock test collecting the correct number of samples from your existing breeding flock as per the testing table.

IN ADDITION

2. If up to 35 supervised animals have been added they should ALL be sampled at your annual test.
3. If more than 35 supervised animals have been added a proportion should be sampled as per the testing table for the annual flock test.

If all the results are negative then accredited status will be maintained.

If replacements are purchased from a flock with no status (i.e. neither EAE accredited nor supervised) then accredited status will be lost. The following steps should be carried out:

1. Carry out your annual flock test collecting the correct number of samples from your existing breeding flock as per the testing table.

IN ADDITION

2. If up to 41 animals have been added they should ALL be sampled.
3. If more than 41 animals have been added a proportion should be sampled as per the testing table for the first qualifying test.

If all the results are negative then supervised status will be awarded.



Update on Sheep Scab

Sheep Scab was eradicated from the UK in 1952 before being re-introduced in 1973. It spread rapidly resulting in the introduction of compulsory dipping which remained in place until 1992. Increasing concern about its welfare and economic effects lead to scab becoming notifiable in Scotland in 2010 and a recent industry campaign in England.

It is caused by a mite (*Psoroptes ovis*) which feeds on the skin surface and produces an allergic reaction resulting in severe itching. Infection spreads directly from sheep to sheep but the mite can also survive off the sheep for up to 17 days. This means that infection can be picked up from fences, pens, clothing, vehicles or equipment that infected sheep have had contact with.

Diagnosis is confirmed if mites are found on examination of scab material under a microscope. A new blood test has been developed at the Moredun Research Institute in Edinburgh and should become available in 2015. The test detects antibodies to sheep scab mites produced by the immune system from 2 weeks after infection – before any signs of itching appear. Trials have shown that sampling 12 animals per management group is sufficient to confirm absence of infection.

There are several circumstances in which the test might prove useful including the surveillance and

identification of scab free areas of the country. It could also be used to screen added animals particularly in cases where blanket quarantine treatments could lead to issues with meat withdrawals e.g. short keep lambs or organic flocks. Animals returning from shows or wintering could also be tested. A reduction in the use of injectable macrocyclic lactone wormers could be a positive outcome with potential benefits in slowing the development of worm resistance to these group 3 products.

The timing of testing and interpretation of results will be important as the one disadvantage of the test is that it will detect antibodies for several months after successful treatment.



Photo © Ian Gill

Maedi visna (MV) diagnostic test

MV infection was found in almost 20% (6 out of 31) of the commercial flocks that took up the MV diagnostic test. The owners of five of these flocks reported seeing typical signs of MV including increased number of deaths, problems with thin ewes, breathlessness in adult sheep, lameness due to swollen joints and incoordination. As signs of MV are not usually seen until around half of the animals in the flock are infected it is likely that these flocks had high levels of infection.

What is the MV/CAE diagnostic test?

The MV/CAE diagnostic test is a screening test for use in flocks/herd where MV/CAE infection may be contributing to ongoing production losses. Blood sampling is targeted at 12 older, thinner animals that could be showing signs of MV/CAE infection.

What are typical signs of MV/CAE infection?

Signs of infection may include increased cull rates, increased number of animals in poor condition, poor growth rates in lambs/kids, reduced milk yield, increased lameness due to swollen joints and increased number of breathless older animals lagging behind the flock/herd.

Why screen for MV/CAE?

MV and CAE have major effects on productivity. By the time clinical signs of infection are detected probably over half of the adult animals in the flock or herd will be infected. When levels of infection are that high, often the only viable economic option is to depopulate and restock preferably with MV/CAE accredited replacements.



Direct Debit Payment

I would urge you to use the direct debit system for settling your membership and testing accounts with PSGHS.

Using direct debit will give you peace of mind that your bills are paid on time and late payment penalties are avoided. Furthermore you will know that your valued Health Status Report will be sent to you and not withheld while we await payment.

It is easy to overlook an invoice and, consequently, it remains unpaid. Direct debit is convenient and secure.

Payments for invoices dated in a particular month are taken on the last working day of the following month.

I enclose a Direct Debit mandate and would be grateful if you could complete and return it.

Payment by Direct Debit will allow us to avoid bad debt and offer you a scheme that gives value for money.

Are You Importing Sheep or Goats?

European countries do not require sheep or goats to be tested for MV or CAE before export. As a consequence MV or CAE status is not certified on the international trade certificate and APHA do not undertake MV or CAE testing as part of post import checks. Although MV and CAE present a serious risk to productivity, neither MV nor CAE is notifiable.

Recently we found MV reactors in two groups of imported sheep.

Members of the MV/CAE accreditation scheme who wish to import stock should determine their MV/CAE status before they are purchased. Accreditation schemes operate in some European countries and Ireland is recognised as officially MV/CAE free. Alternatively the animals should be individually tested before export and held in quarantine before re-testing six months later as added animals.

Please contact us if you have any questions or require MV/CAE testing carried out.

Note that as Ireland is officially MV/CAE free, the Irish authorities require imports from GB to come from MV/CAE accredited flocks or herds or tested before export. The imports are then retested in Ireland.

Caprine arthritis encephalitis (CAE) in dairy herds

Clinical signs of CAE in the milking goat herd

First indicators of disease:

- Reduced milk yield
- Increased cull rate
- Weight loss in older does

Signs of disease:

- Lameness due to swollen joints (particularly the knees)
- Firm swollen udders - "hard bag"
- Breathlessness and exercise intolerance, goats lagging behind group
- Occasionally neurological signs including blindness, circling and goats going off their legs (this can be seen in goats and kids).



that are regularly handled. The practice of feeding pooled colostrum and milk in dairy goat herds can also lead to increased infection rates as one infected doe can infect a large number of kids.

How to test

We advise carrying out a diagnostic screen using the CAE virus diagnostic test. Select for blood sampling 12 older thinner animals that might be incubating disease. The results will tell you whether the clinical signs are due to CAE.

Your vet can advise if it is worthwhile testing these animals for other diseases at the same time.

Clinical signs of CAE are only obvious when over 50% of the herd are infected. By that time production losses are high and eradication more difficult. We advise owners to screen their goat herds for CAE on a regular basis even if there are no signs of disease. It is best for them to join the CAE accreditation scheme where, once accredited, testing is undertaken every second or third year and the rules and conditions of the scheme help to protect their stock from the crippling effects of the disease.

Transmission

CAE is primarily transmitted through ingestion of infected colostrum/milk and via direct nose to nose contact or contact with air-borne droplets from the respiratory tract. Intensively managed dairy herds provide an optimum environment for the spread of the virus as increased infection rates will occur in housed animals and those

The Essie Flock

Article from Irene Fowlie

Essie Suffolks, based in North East Scotland, produces high Index Performance Recorded Suffolk Shearling rams for commercial and pedigree flocks. Established over 30 years ago, our closed flock consists of 120 females. We aim to produce naturally fleshy, long, wide shearling rams with good skins and with an emphasis on growth rate, confirmation and size for both terminal and maternal use.

Attention to health is paramount within the flock. The flock is MV Accredited, a member of the Scrapie Monitoring Scheme, have double tested clear for CLA (shearlings) for 10 years and is Farm Assured. All stock rams have been genotyped ARR/ARR for more than 10 years with obvious genetic advantages for all progeny in a closed flock.

Essie flock won the Brooks Cup in the UK National Flock Competition 2013 for the best flock over 100 ewes and was also awarded the Reserve in the Progeny Group with ewes sired by the high performance recorded ram Drinkstone Heavyweight. The stock rams used in 2013, home bred, were awarded a Certificate of Merit in the best stock ram category.

Essie Suffolks have bred the top UK Performance Recorded Stock Sire 2014, the top Performance Recorded Terminal Index Ewe 2014 and the top Performance Recorded Maternal Index ewe 2014.

Buyers both in the UK and overseas can be assured of not only top quality health status but also of top genetic traits. Our pen of 30 had the highest average for Suffolk Shearlings at Kelso Ram Sales, 5 of which went to

pedigree flocks including one to Germany. The majority of our sales is repeat buying with some on the farm. In 2014 we exported ewes and rams to Romania and Holland and semen to Canada and the Czech Republic. We are currently busy with the export of semen to Norway, Sweden and Canada.

Our health status certainly helps in developing these markets, be they at home or overseas. Being a SMS member makes the export of both live sheep and semen so much less complicated. We have been testing for CLA prior to selling and this helps our sales (especially to Shetland) with all sheep sold as CLA monitored free. Sale animals are kept in isolation for up to 12 weeks before sale and they are tested twice for CLA in this period.

As breeders we also need to buy in stock rams and these rams need to tick all boxes for health and performance and we would encourage all breeders to follow a similar discipline to ourselves.



Shearlings prior to sale.

Non-accredited sheep and goats- what is the risk?

Keeping MV/CAE accredited and non accredited sheep or goats on the same holding increases the risk of spreading MV/CAE. The non accredited animals are a potential source of infection. The risk to your accredited flock is significant if strict biosecurity is not maintained. Non accredited animals should not have any contact with your accredited flock and should not be used as embryo transfer recipients. Separate equipment should be used for each flock and handling facilities and clothing should be thoroughly disinfected after use. Rule 1.8 for the MV/CAE accreditation scheme describes these measures in more detail and should be strictly adhered to.

If you are concerned that your accredited sheep/goats have had contact with non-accredited stock:

- Contact the PSGHS office and let them know.
- Isolate the animals that have had contact with non

accredited stock from the rest of the accredited flock and then either:

- Test the non accredited animal that has had contact with the animals OR
- If this is not possible isolate the accredited animals and retest six months after contact.

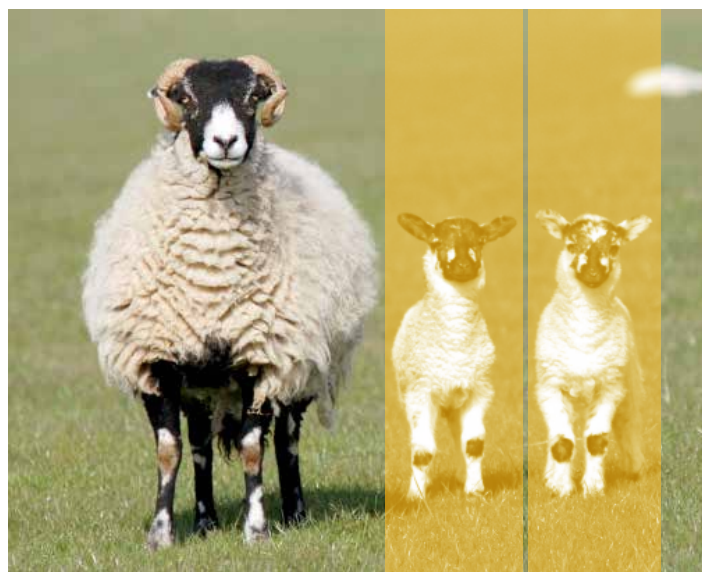
If you ignore contact between your accredited and non accredited flock the potential consequences to your accredited flock include:

- Loss of accredited status which may lead to loss of revenue at sales, inability to sell at breed society sales and inability to export.
- The cost of regaining accredited status
- The potential production losses to your flock/herd if a large percentage become infected with MV/CAE.



Need to change your MV/CAE test date from autumn to summer?

If you want to change the date of your routine periodic blood test (RPBT) you should test before your health status report (HSR) runs out. For example if the date of your RPBT was October 2015 and you wanted to test in summer you should test earlier - in July 2015 for example. If you contact the PSGHS office they will be able to provide you with the paperwork you require for testing at an earlier date. Delaying your testing until after the date your HSR runs out may lead to you losing your valued MV/CAE accredited status.



Scrapie Genotyping

The good news is that in recent years we have seen a significant fall in the number of cases of classical scrapie in sheep. Several factors will have led to this fall but certainly there is now a greater level of resistance to classical scrapie in the national sheep flock as a result of testing and selection of breeding stock over many years. Unfortunately this progress has not been matched in goats where scrapie genotyping is not readily available.

Since the withdrawal of the National Scrapie Plan, Ram Genotyping Scheme in 2009 many flock owners have continued to select breeding stock for resistance to classical scrapie to prevent susceptibility to scrapie

re-emerging. These flock owners arrange for their sheep to be sampled by their own private veterinary surgeon and tested at private laboratories including SAC Consulting: Veterinary Services (SACCVS). The owner can publicise the results to prospective purchasers. See our website for details.

Note that only breeding sheep with the resistant ARR/ARR genotype can be traded in the EU unless they come from a flock that is a member of the Scrapie Monitoring Scheme. SACCVS is an approved laboratory for export testing for scrapie susceptibility.

Should I be testing my show team for MV/CAE at the end of the show season?

If you have any concerns that there may have been any breaches of biosecurity at shows between MV/CAE accredited animals and non-accredited animals you should:

1. Contact the PSGHS office on 01463 226 995. It may be that the animals will temporarily lose their accredited status.
2. Isolate the animals from your accredited flock/herd for six months from the date of the potential biosecurity breach.
3. Blood test the animals for MV/CAE - providing they test negative they will be able to return to the flock/herd.



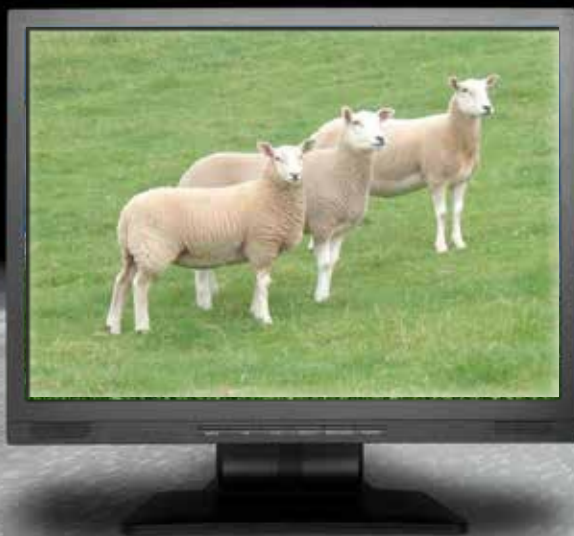
For peace of mind you may wish to consider isolating and testing your show animals even if there has been no evidence of biosecurity breaches. It would be recommended to isolate the show animals for six months from the last show and then blood sample them before returning them to your accredited flock.

Scrapie Monitoring Scheme (SMS)

There are around 140 flocks/herds in SMS and from January 1st 2015 it will only be possible to export from a holding that is in SMS or if animals are genotyped as ARR/ARR (sheep only).

SAC operate SMS to guidelines laid down by Defra and EU and these guidelines are strict.

- All fallen sheep over 18 months of age should be tested. Fallen stock are animals that die on the farm.



- The rules of SMS have to be adhered to – these are available at www.sheepandgoathealth.co.uk
- Care must be taken when purchasing stock – it must be ensured that they come from other SMS flocks/herds or that they are genotyped as ARR/ARR.
- During the period September 1st to April 30th stock must not be purchased from sales that do not have segregated SMS sections. The exception to this is if stock are ARR/ARR. Very few sales register to have segregated sales.

It is up to you as the SMS member to follow the rules and perhaps suggest to the market that they have segregation.

Remember – if you take stock to an unsegregated sale/show, fail to sell them and take them home again you will lose your SMS status (unless sheep are ARR/ARR).

Please note that SAC Veterinary Services offer a Scrapie Genotyping Service – genotyping can increase the market opportunity.

Many flocks/herds have been in SMS for 7+ years and now have negligible risk status. Do not buy from flocks/herds that have been in SMS for less than 7 years otherwise your SMS status is in jeopardy. Of course this will not apply if the purchase is ARR/ARR.

Future Sheep and Goat Farmers

The National Sheep Association (NSA) has rightly highlighted the opportunities the sheep (and goat) sectors provide the next generation to get a step on the farming ladder. Among the many different routes into the sector are share farming, rental agreements, shepherding and off farm employment. However new businesses are particularly vulnerable to set-backs from disease outbreaks. In this newsletter we report the ongoing spread of CLA and MV/CAE. We know of a new dairy goat unit where its viability is threatened by CAE. Where we have good news is on scrapie.

By working together we see a marked decline in disease cases. The message must be for us all to speak out about these diseases so that the new generation are fully informed on the value of accredited stock. The health status of your flock or herd is valuable. Tell everyone about it. The next generation of sheep and goat keepers are the future of the industry and it is imperative that they start off on a sound footing.



Websites

These are two PSGHS websites for sheep producers.

www.sheepandgoathealth.co.uk

Look here for information on any of the schemes or for scrapie genotyping. New members can find application forms and all members can locate the current rules and conditions of the various schemes.

The site also contains all the forms you and your veterinary practice needs to undertake tests.

www.psghs.co.uk

Here you can find a list of members along with the schemes to which they belong. Members can login on this site to print off Health Status Reports for their flocks/herds as and when they require copies. Note only those members who gave their permission are listed.

If you want to provide us with your own web address, we will add it to the site – it will help to raise awareness about your own flock/herd.

If your details are missing or wrong or require updating, please contact PSGHS office on 01463 226 995.

Embryo transfer recipients – make sure yours are free of MV

Sadly some flock owners have produced lambs of little value from valuable embryos because they implanted them into recipient ewes that were infected with Maedi visna (MV).

MV is on the increase in the national flock so it is essential to ensure that embryo recipients are not infected with MV. For flocks that are MV accredited, only MV accredited recipients can be used. If it is not possible to source MV accredited sheep then two clear qualifying tests a minimum of six months apart are

needed before the recipients can be used. This is required in order that MV accredited embryos can retain their accredited status.

If non-MV accredited recipients are used the lambs born to them are non-MV accredited. These lambs will require two clear qualifying tests, at least six months apart, to gain MV accredited status and the earliest that the first qualifying test can be done is 12 months of age. Therefore they would be at least 18 months of age before they gain MV accredited status.

MV can cross the placenta to the unborn lamb but the highest risk of virus transmission occurs after birth via infected colostrum/milk or by close, nose-to-nose contact with infected sheep.

Please remember that it is not just the health status of your own flock

that is being jeopardised but the MV accredited status of the flocks that source from you and the flocks that source from them. If a breakdown occurs it takes a minimum of 12 months to regain status. During that time the financial impact can be significant as MV accredited sales are lost.

If you are purchasing sheep privately ensure that you see a copy of the vendor's MV accreditation scheme Health Status Report and check to make sure that it is still valid. Also check that the sheep being purchased are part of their MV accredited flock and not part of their non-MV accredited commercial flock. If there is any doubt over the status of the sheep you should contact the PSGHS Office on 01463 226995 for advice before adding the sheep to ensure that any sheep that enter, or have contact with your flock, are MV accredited.