



# **Sheep Infectious Disease Monitoring Scheme**

**Rules & Conditions**

**Maedi Visna (MV)  
Johne's Disease**

# INTRODUCTION

## Purpose of the Premium Sheep and Goat Health Schemes (PSGHS) Monitoring Scheme

This Monitoring Scheme is voluntary and allows you to demonstrate that you have carried out an annual targeted screening of your flock for MV and/or Johne's Disease providing a level of assurance for buyers. These diseases most commonly enter a flock via the purchase of apparently healthy breeding animals. Flock level monitoring provides an important mechanism to identify and reduce the spread of these diseases.

**Please note:** PSGHS MV Monitored is not as high a health status as MV Accredited. MV Monitored status doesn't qualify animals for entry into MV Accredited sections of shows and sales, or meet export regulations that require MV Accreditation.

## About the Diseases

### Maedi Visna

Maedi Visna (MV) is a chronic infectious viral disease affecting the lungs and nervous system of sheep which can be transmitted between individual sheep and flocks. The virus which causes Caprine Arthritis Encephalitis (CAE) in goats is very similar to MV virus and there is evidence that cross infection can occur between species. Therefore for the scheme purposes "animal(s)" refers to both sheep and goats. Blood testing allows identification of infection. There is no vaccine, no cure and the disease is fatal.

### Johne's Disease

Johne's disease reduces the sheep's ability to absorb protein from its diet. Affected animals lose weight and are likely to be culled from the flock due to poor production or poor body condition. The bacterium *Mycobacterium avium* subspecies *paratuberculosis* causes Johne's disease in cattle, sheep and goats. The disease has been found across a range of extensive and intensive husbandry systems and is often under diagnosed. Johne's disease has a long incubation period, there is no cure and it is ultimately fatal.

## Key benefits for members

- It allows you **membership of a nationally recognised disease monitoring scheme** with an auditable system operating with ISO17025 for MV/CAE testing.
- It **adds value** to your flock by enabling you to advertise your Monitored status and to supply purchasers looking to reduce their risk of buying in disease by sourcing from flocks that have been regularly screened for MV and/or Johne's Disease.
- Targeted screening of your flock provides an **early warning** of the presence of disease allowing you to act to limit the impact of the disease on your own flock.

# THE RULES

## 1 MEMBERSHIP

### 1.1 Eligibility to join

You can join the Monitoring Scheme in respect of a flock or a holding provided that you adhere to the scheme rules.

### 1.2 Application process

Please complete the application form at [www.sheepandgoathealth.co.uk](http://www.sheepandgoathealth.co.uk) or from:

SRUC Veterinary Services, PSGHS Office, Greycrook, St. Boswells, Melrose TD6 0EQ  
Tel: 01835 822456 Email: [psghs@sac.co.uk](mailto:psghs@sac.co.uk)

### 1.3 Health Status Report

SRUC Veterinary Services is responsible for issuing health status reports. As keeper of the flock you are responsible for ensuring that testing is carried out within such a time frame that enables SRUC Veterinary Services, subject to the results of that testing, to issue each health status report prior to the expiry date of any existing health status report. The health status report is issued by SRUC Veterinary Services annually on confirmation that all MV or Johne's Disease flock screening was negative, and on receiving documentation signed by both the keeper of the flock and their veterinary practitioner declaring adherence to the rules of the Scheme.

### 1.4 Reporting suspected infection

If you suspect that an animal is infected with MV or Johne's Disease (e.g. any animal losing condition without an obvious reason) this must be reported to your veterinary surgeon for investigation. The veterinary surgeon may decide:

- that the animal is not infected with MV or Johne's Disease and that no further action is required
- that MV or Johne's Disease cannot be ruled out and that testing of each animal suspected of being infected must be undertaken and samples submitted to SRUC Veterinary Services.

If the testing carried out on the suspect animal confirms the presence of MV or Johne's Disease, the Monitored status of the flock will be suspended immediately unless the positive animal is one which has been kept in isolation since its introduction to the flock.

## 1.5 Discretion of SRUC Veterinary Services

SRUC Veterinary Services decisions are deemed to be final and they shall have sole discretion to determine:

- Whether a flock's MV or Johne's Disease Monitored status should be suspended or removed
- Interpretation of the rules

## 2 TESTING PROGRAMME

### 2.1 Annual Screening tests

To become MV and/or Johne's Disease Monitored, and to maintain this level of health status, the following annual screening tests must be performed in each separately managed breeding flock on the holding. Testing may be carried out at any time but SAMPLES MUST BE RECEIVED AT LEAST 6 WEEKS PRIOR TO YOUR FIRST EXPECTED SALE DATE.

Samples must be collected by a veterinary surgeon.

The veterinary surgeon taking the samples must clinically examine and select the animals for testing using the following criteria:

- Animals tested should be in low body condition score, ideally 2 or less.
- Animals should have no obvious reasons for poor body condition score e.g. being broken mouthed or lameness due to foot rot.
- Preference for testing should be given to
  - ewes that have failed to rear twins or had lambs that failed to reach weaning weights
  - ewes/tups lagging behind flock when handled.
  - animals with swollen joints.

**Blood for MV and/or individual faecal samples for Johne's Disease** should be submitted from:

- Flocks of less than 500 breeding ewes: 12 ewes.
- Flocks of 500 or more breeding ewes: 20 ewes
- Five stock tups (or all if fewer than 5).

After becoming MV and/or Johne's Disease Monitored the screening must take place annually in order to maintain health status. The number of clear test years will be stated on the certificate.

At each annual flock screen the Scheme submission form and the testing and biosecurity checklist (Appendix 1) must be completed fully and signed by the owner/manager and their veterinary surgeon. This contains the required flock information and a declaration of adherence to the rules.

### 2.2 Added animals to be tested after first year of membership

Added animals must be tested with negative results for MV (blood) and/or Johne's (faeces) up to a maximum of 12 animals per year from each flock of origin.

- Animals from MV Monitored or MV Accredited flocks are exempt from any added animal MV testing requirements
- Animals from Johne's Risk Level 1 or 2 flocks are exempt from any added animal Johne's testing requirements

### **3. Rule Breaches**

SRUC Veterinary Services may suspend or remove your flock from the Monitoring Scheme if any of the following events occur:

- If you fail to comply with any of the rules.
- You incorrectly portray your flock status.
- If you fail to pay outstanding fees to SRUC Veterinary Services.

#### **3:1 Liability**

SRUC Veterinary Services is not liable for any losses incurred by a member or any other person as a result of a flock's/herd's or animal's loss of MV or Johne's Disease Monitored status howsoever caused.

# APPENDIX 1

## Biosecurity Checklist

This information must be provided in order for a health status report to be issued.

<b>Mandatory Elements – MV and Johne’s Disease Monitoring Schemes</b>
1. Testing of 12 or 20 thin ewes (depending on flock size) must be carried out on an annual basis.
2. 5 stock tups must be tested on an annual basis. If there are less than 5 eligible tups on the holding they must all be tested.
3. All tups purchased in the previous 12 months must be tested following the first year of membership.
4. 12 female replacements from each source purchased in the previous 12 months must be tested following the first year of membership.
5. Any positive animals must be isolated until either follow up testing is carried out or they are removed from the flock.
6. Reactors must be removed from the flock as soon as possible.
7. Any sheep that is losing condition for no apparent reason should be reported to your veterinary surgeon for investigation.
<b>Recommended Elements – General</b>
1. Farm boundaries should be secure and ideally prevent nose to nose contact.
2. Equipment and clothing should be cleaned and disinfected between farms.
3. Quarantine all added animals in accordance with your flock health plan.
4. Consider testing all added animals for MV and/or Johne’s disease.
<b>Recommended Elements – MV Monitoring Scheme</b>
1. Any identifiable offspring of a reactor should not be sold/retained as breeding animals.
2. Added animals (including pet lambs), colostrum, embryos and semen should be sourced from MV accredited or monitored flocks where possible.
3. Avoid nose to nose contact with other sheep at shows and sales where possible.
<b>Recommended Elements – Johnes Disease Monitoring Scheme</b>
1. Any identifiable offspring of a reactor born during the previous 2 lambing seasons should not be sold/retained as breeding animals.
2. The lambing area should be kept as clean as possible.
3. There should be a gap of at least 12 months between spreading slurry/manure on pasture and using it for grazing youngstock.
4. Faecal contamination of feed and water sources should be reduced.
5. Mains water should be provided where possible.
6. Natural water sources should be fenced off where possible.
7. Co-grazing with other ruminants should be avoided where possible.

## **APPENDIX 2**

### **Disease Information**

#### **Maedi Visna**

Maedi Visna (MV) is a viral infection with a long incubation period that spreads slowly within a flock. This means that, by the time a problem is suspected, a large number of sheep in the flock will give positive results when blood tested for antibodies to MV. Disease is spread by close contact between sheep, and via colostrum and milk. It can be transferred between sheep on hands or on equipment such as dosing guns. It survives for less than a week in the environment. Ill thrift and/or an increased incidence of pneumonia or mastitis in adult sheep can be the first signs of a problem. Low yields of colostrum and milk can result in increased young lamb losses and poor growth rates. The virus can also affect the nervous system and affected ewes may drag one hind leg and become increasingly uncoordinated. Breeding replacements should ideally be sourced from MV accredited flocks. Otherwise screening added animals for antibodies to MV is recommended. It can take up to 6 months for antibodies to be produced following infection. In order to establish whether or not MV is present in a flock testing can be targeted to thin ewes. Lambs born to MV positive ewes should not be kept as breeding replacements.

#### **Johne's Disease**

Mycobacterium avium paratuberculosis is the bacteria responsible for Johne's disease. Multiplication of this bacteria within the wall of the intestine causes damage that leads to protein loss and ill thrift. Affected sheep remain bright with a good appetite but will progressively lose condition until they die or are culled. Diarrhoea can occur but is much less common in sheep than cattle. The disease has a long incubation period extending from months to years. Young lambs are most at risk of infection but symptoms may only develop several years later. Infected, but apparently healthy, sheep will periodically shed the Johne's disease bacteria in their faeces. This contaminates the environment where the bacteria can survive for up to 12 months if the conditions are right. Depending on the strain type, sheep can infect cattle and vice versa. Screening healthy sheep to confirm infection with Johne's disease can be challenging. A blood test is available that detects antibodies to the Johne's disease bacteria. However, recently infected animals, and those without signs of disease, can test negative. The bacteria can be detected in faeces, but may only be shed periodically. There is therefore no perfect test for this disease, however it is still worthwhile screening purchased animals. The long incubation period means that repeated annual screening of a flock is required to prove freedom from Johne's disease. Investigation of ill thriven animals is also important. A vaccine is available which will reduce the effects of, but not eliminate, Johne's disease from a flock. Vaccinated sheep will test positive in the blood test. Where lambs born to Johne's positive ewes can be identified they should not be kept as breeding replacements. In order to establish whether or not Johne's disease is present in a flock testing can be targeted to thin ewes.

#### **Other Infectious Diseases That May Be Of Interest** (tests are available for Border Disease and CLA)

##### **Border Disease**

Border Disease (BD) virus is closely related to the virus that causes BVD in cattle. Problems occur if a ewe is pregnant when infected for the first time. The ewe does not appear ill but the virus can cross the placenta to infect the unborn lambs. The consequences vary depending on the stage of pregnancy but can include an increased barren rate at scanning, abortion, or the birth of weak or deformed lambs. Affected lambs may tremble and have an unusual fleece giving them the name "hairy shakers". Disease spread between flocks is mainly due to the movement of persistently infected animals (PIs). These sheep are born infected with BD and shed the virus for the whole of their lives. They may

become ill thriven, develop scour and die at a few months old, but can appear healthy and survive to breeding age. PI tups may have poor fertility. Introduction of BD to a flock could occur as a result of poor boundary biosecurity or through the purchase of a PI animal. The virus can survive outside the sheep for a short time so transmission on clothing or equipment is also a risk. Preventing straying and nose to nose contact at boundaries; plus blood sampling purchased animals for BD virus will reduce the risk of introducing this disease. Bought in ewe replacements should be kept separate from the rest of the flock from purchase until after lambing. Abortions, or the birth of deformed lambs, should be investigated as this may be the first sign of a problem. Cattle are at risk of infection with BD although this is believed to be uncommon.

### **Caseous Lymphadenitis**

Caseous lymphadenitis (CLA) is a bacterial infection that causes abscesses to form in lymph nodes and internal organs such as the lungs. The bacteria enters the body through areas of minor skin damage. From here it travels to the lymph nodes, which are part of the sheep's immune system. Lymph nodes are found throughout the body including below the ear and at the corner of the jaw. The lymph nodes increase in size as abscesses form and, depending on their location, may become apparent as lumps that can be seen or felt. Infected sheep that have not yet developed abscesses, or only have them internally, can remain undetected unless a blood test for CLA is carried out. Over time infected sheep may become ill thriven. The presence of abscesses can lead to condemnation of the whole carcass at slaughter. CLA is most likely to be introduced to a flock via the purchase of infected sheep. A blood test that detects antibodies produced in response to infection with the bacteria can be carried out. Vaccines are available in other countries and animals vaccinated with imported products will test positive in the blood test. Added animals should also be checked for lumps, particularly around the head and neck. The bacteria can survive for around two months in the environment. You should insist that all contractors working on the farm (e.g. shearers, scanners) clean and disinfect their equipment between farms.

### **Ovine Pulmonary Adenocarcinoma**

Ovine pulmonary adenocarcinoma is also known as OPA or Jaagsiekte. This virus causes tumours to form in the lungs. Typically these cause a build-up of fluid in the lungs, and affected sheep hang back when gathered. The lung damage makes them at higher risk of pneumonia and they may be found dead while still in good body condition. Other cases may have been treated with antibiotics for suspected pneumonia, but fail to respond and go on to die. Affected sheep, that don't die from pneumonia, lose weight and can be very thin at the time of death. The virus is present in discharges from the nose and is easily spread from infected ewes to their lambs soon after birth. Trough feeding and housing also allow transmission between sheep with all ages at risk. The virus may survive in the environment for a few weeks. OPA is most commonly introduced through the purchase of infected, but apparently healthy, sheep. No blood test is available for this disease. Postmortem investigation of cases of sudden death and ill thrift is a practical way to establish whether or not OPA is present in a flock. Ultrasound scanning of the lungs to detect OPA is being carried out more often, particularly on purchased stock. This will provide some information, but early stage tumours may be too small to detect. Reducing stocking densities and the period of time when sheep are housed or trough fed may reduce virus spread. Where lambs born to ewes with OPA can be identified they should not be kept as breeding replacements.

Premium Sheep and Goat Health Schemes, Greycrook, St. Boswells, Melrose TD6 0EQ  
[psghs@sac.co.uk](mailto:psghs@sac.co.uk) [www.sheepandgoathealth.co.uk](http://www.sheepandgoathealth.co.uk) Tel:01835 822456 Fax:01835 823643

SRUC Veterinary Services, West Mains Road, Edinburgh, EH9 3JG  
Charity registered in Scotland, No. SCO03712