



# **TSE Active Surveillance Information for Sheep and Goat Fallen Stock Sampling Sites**

By Brenda Rajanayagam

May 2011

## ***Table of Contents***

<b><i>Overview of the Sheep and Goat Fallen Stock Project (TS5990)</i></b> .....	<b>3</b>
<b><i>Submission of carcasses for sampling</i></b> .....	<b>4</b>
See Submission Form.....	attached
<b>Training</b> .....	<b>4</b>
See cascade training document .....	attached
<b>Sampling</b> .....	<b>4</b>
See incisor teeth document .....	attached
<b>Autolysed (rotten) samples</b> .....	<b>7</b>
<b>Ear sampling</b> .....	<b>7</b>
<b><i>Consumable items</i></b> .....	<b>8</b>
<b>Ordering</b> .....	<b>8</b>
See Sheep/Goat Fallen Stock Consumable Re-Order Form.....	attached
<b>Sample pots</b> .....	<b>8</b>
<b>Spoons</b> .....	<b>8</b>
<b>Pots</b> .....	<b>8</b>
<b>Forceps</b> .....	<b>9</b>
<b>Disposable Scissors</b> .....	<b>9</b>
<b>Ear sample bags</b> .....	<b>9</b>
<b>Barcode labels</b> .....	<b>9</b>
<b>Leg Tags</b> .....	<b>9</b>
<b><i>Packaging</i></b> .....	<b>9</b>
<b><i>Despatch of samples</i></b> .....	<b>10</b>
See Fallen Stock pre submission Fax.....	attached
See packing instruction document .....	attached
<b><i>Payment for sampling</i></b> .....	<b>11</b>
<b><i>Further information</i></b> .....	<b>11</b>

## **Overview of the Sheep and Goat Fallen Stock Project (TS5990)**

The sheep and goat fallen stock project has been in operation since 2002. The EU requirement stipulates we test fallen sheep over 18 months of age for TSE with a target sample size of 10,000 in 2011 for UK. The requirement is for 9,300 from GB (93%) and 700 samples (7%) from Northern Ireland. The number of sheep and goats to be sampled by individual sampling sites will be managed by AHVLA, based on throughput reports produced on monthly basis.

By December 2010, the RPA-run BCMS Helpline available for farmers to arrange the collection and disposal of fallen sheep and goats, free of charge will end. From January 2011, farmers will need to make their own arrangements and pay for the collection and disposal of all carcasses. A proportion of these animals will be eligible for sampling on a random selection basis.

All selected fallen sheep and goat samples are tested at the Animal Health & Veterinary Laboratories Agency at Newcastle. The test used to screen samples is the BioRad TeSeE ELISA. The test has a three day turn around from the date of receipt at the laboratory. This test is capable of testing both fresh and autolysed (rotten) samples.

AHVLA will approve and monitor all sampling sites. Random checks will be carried out to ensure correct practices are followed.

Fallen sheep and goat samples are delivered to AHVLA Newcastle Monday to Saturday. A Holiday Schedule will be issued by AHVLA in advance regarding sampling and collections during Bank Holidays.

### **AHVLA will provide the following services:**

- sampling training – retraining as appropriate to approved fallen stock sampling sites
- supply of necessary consumable items to approved fallen stock sampling sites
- sample collection service between sampling site and laboratory
- a testing service
- sample condition monitoring

This document contains useful information and reminders for sheep and goat fallen stock brainstem samplers.

## **Submission of carcasses for sampling**

Owners should organise with private contractors the collection and disposal of all sheep and goat fallen stock over 18 month of age. Owners are responsible for payment of this service. Age of the animal should be checked based on the numbers permanent incisors. If there are two or more permanent incisors then they are presumed to be over 18 months old.

A revised submission form (SS2) for recording of details of farm and selected fallen stock is attached. The form can be completed electronically or by hand. Pads of forms can be ordered as part of the consumables order and each pad consists of 50 forms, with a carbon copy. The top copy is sent with the sample and the yellow carbon copy needs to be retained at the sampling site. Operators should ensure that handwriting is legible and the details are accurate. This will be monitored by AHVLA and any issues will be raised with the sites. The information provided will then be transcribed onto an IT system.

## **See Submission Form**

Barcodes are provided in triplicate. One of the barcodes is for the submission form (in the box on the top right) a second barcode goes on the sample pot and the third one is for labelling the bag containing the ear and ear tag (see instruction later).

The submission form provides space to record visible animal ID information; such as ear tag (s), tattoos or any other marking unique to the animal.

## **Training**

Sampling training will be provided by AHVLA. Cascade training by an approved sampler is also allowed.

All training (AHVLA or cascade) must be recorded on appropriate training record forms to provide evidence that sampling is undertaken by approved samplers. AHVLA expects to see documented evidence of training when sites are visited and inspected.

## **See cascade training document**

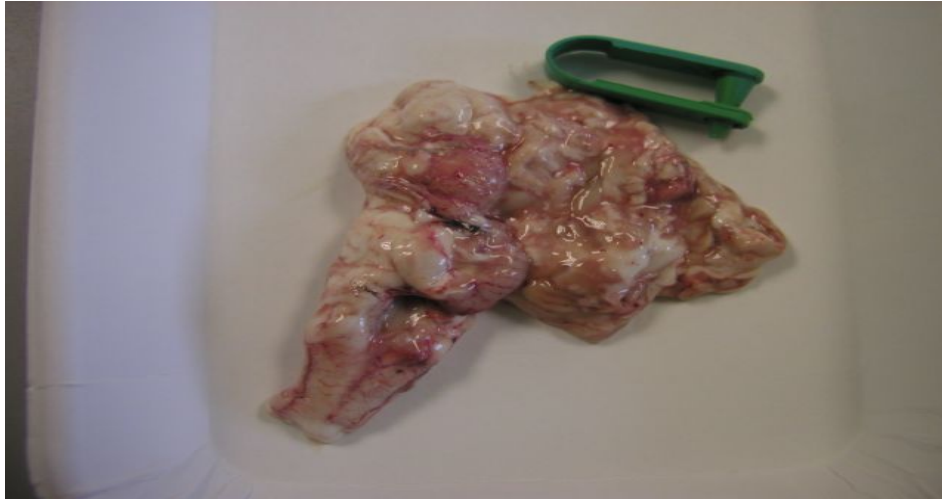
## **Sampling**

Only animals over 18 months are required to be sampled for this survey. The age can be determined by the numbers of permanent incisor teeth. Animals with two or more permanent incisors, or which are “broken mouthed” are considered to be over 18 months. Animals suspected to be under 18 months are NOT eligible for sampling.

For TSE testing purposes we require the Obex region of the brainstem and the Cerebellum.

## See incisor teeth document

Here is an example of suitable brain sample:



Most damage is caused to the sample by not controlling the spinal cord end of the brainstem when inserting the spoon, or inserting the spoon at too shallow an angle.

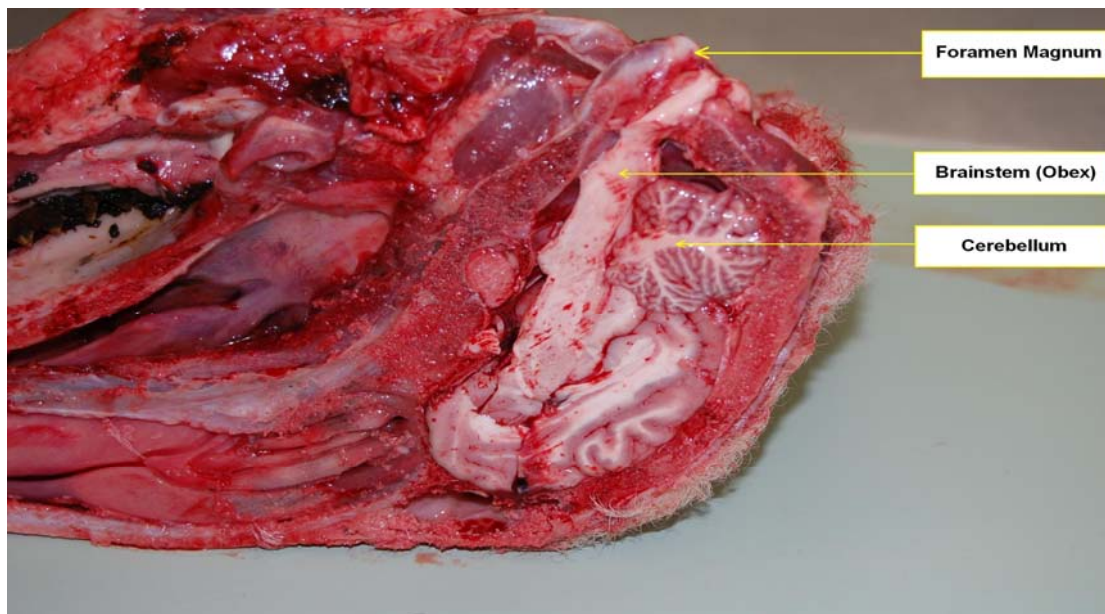


Figure 1 - Cross section of sheep head, showing position of key structures involved in sample collection.



Figure 2 - Cross section of sheep head, showing the orientation of sampling spoon during first insertion. This action separates the cerebellum from the brainstem and also partially detaches the base of the brainstem.

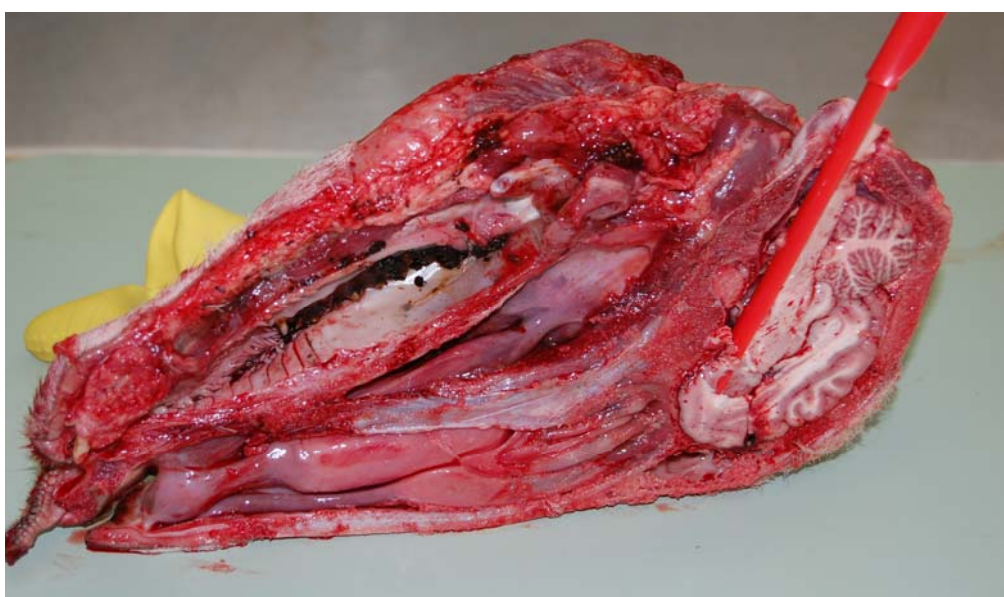


Figure 3 - Cross section of sheep head, showing the orientation of sampling spoon during second insertion. This action completes the detachment of the brainstem and allows it to be carefully withdrawn with the spoon.

Use the triplicate barcodes provided to label:

- Submission form (in the box marked "Attach Barcodes")
- Sample pot
- Mini-grip bag containing the ear sample and ear tag

## Autolysed (rotten) samples

All brain samples can be tested despite how autolysed, or rotten, they are. If there is no structure to the brain that can be recognised, please fill the pot about half full with the brain material.

If for any reason it is not possible to obtain a satisfactory sample, try the next random animal to be sampled.

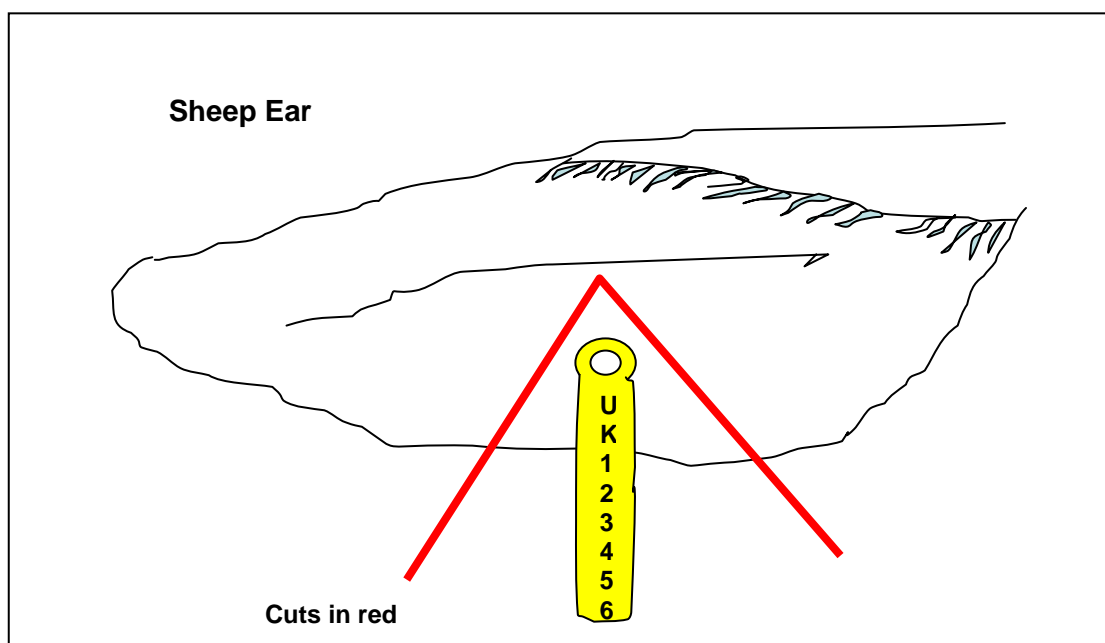
## Ear sampling

AHVLA will require a piece of ear to be removed (a “V” shaped notch of ear surrounding the ear tag as shown in the diagram below), and placed in a clean plastic bag. If there are more than one eartag, all tags should be included in the plastic bag and the details noted on the Submission form (SS2). Regardless of the number of eartags, one piece of ear sample is sufficient for DNA analysis.

All individual ear samples labelled with the corresponding barcode to the sample pot and submission form should be packaged in the same Bioshield box for transit.

DNA analysis can be carried out on the ear and brain tissue to ensure that the animal submitted corresponds with the sample tested and a secure trail is available should subsequent tracing and audit be required.

If there is any mismatch of brain material against ear sample – further action will be taken.



## **Consumable items**

*It is very important that everyone appreciates that consumable items must not be either over ordered or wasted or confused with the Fallen Cattle Survey. This attached Sheep Goat Fallen Stock Consumable Re-order form is ONLY to be used for this Survey.*

## **Ordering**

Numbers of items ordered must be consistent with the numbers of samples taken at a site. All orders for this survey must be sent to **AHVLA Weybridge** as detailed on the form. AHVLA will adjust orders as appropriate, on the basis of known throughput of the site and the known levels of consumables previously ordered. All orders are monitored and reviewed.

## **See Sheep/Goat Fallen Stock Consumable Re-Order Form**

## **Sample pots**

Use 100ml containers (AHVLA Code PZ10017) for the brain sample. Ensure the pots are not contaminated and clearly labelled with the corresponding barcode.

## **Spoons**

Disposable plastic spoons must be used for all fallen stock. Metal spoons, air or water extraction methods can not be used for sheep and goat fallen stock.

There is no reason why spoons should break if used correctly – please apply minimal pressure to get the job done. The spoons for the sheep/goat brain stem removal are RED whilst the ones used for cattle are BLUE or GREEN: these must not be used to sample sheep or goats.

## **Pots**

A common cause of complaints from the testing laboratory is that the tops of pots have not been screwed on correctly. This can lead to leakage during transit – making the packaging difficult to handle and also causing more expense – as contaminated packaging has to be sent for specialist burning rather than being recycled.

## **Forceps**

A pair of forceps is provided for each head – as with spoons these must be treated as clinical waste.

## **Disposable Scissors**

These should be used to cut the dura mater – the membrane surrounding the brain and spinal cord, to expose the brainstem and then used again to gently cut the cranial nerves.

## **Ear sample bags**

AHVLA will supply zip-top mini grip bag (AHVLA Code DIC0009) for storing individual ear samples. These bags should be labelled with the barcode corresponding to the brain sample and contain the ear sample and embedded ear tag of the animal. These bags can be ordered through the consumables order.

## **Barcode labels**

Each site will be supplied with rolls of barcode labels (each barcode in triplicate). A label is attached to the pot, the submission form and the bag containing the ear sample with ear tag.

## **Leg Tags**

Carcases that are suitable for the survey will be leg tagged when collected from the farm, and sheep and goats for sampling can then be selected from leg tagged carcasses at the sampling sites.

Leg tags (AHVLA Code DZZ0004) can be ordered via consumables order form. These are exactly the same as the ones used for the fallen cattle survey but ensure the correct number is ordered through appropriate survey re-order forms. The leg tag number would be matched to the collectors' commercial documentation to verify ID. If farmers take their own fallen sheep or goats to the plants, leg tagging and selection can be done at the plants.

## **Packaging**

Currently, all packaging has been purchased on a prepaid delivery basis from DX.

Therefore we strongly recommend that the minimum amount of packaging is used. All sites must take care not to lose or damage either boxes or DX

labels. If there has been any over ordering, please contact AHVLA and arrange for this to be returned.

Cattle, sheep and goat sample pots can be sent on the same box, if necessary, to reduce packaging.

All new sites which are not currently served by DX courier service will need to contact AHVLA in order to arrange transport.

There are two packaging containers available under this survey:

Yellow Top Bio Bottle - (up to 2 samples)

Bioshield Box - (up to 40 samples)

Ensure all packaging is available before sampling commences and samples are packed as instructed by DX and stored correctly until collection.

Any queries relating to DX issues should be directed to:

Sheep/goat TSE fallen stock survey project leader

Tel: **01932 359593**

Email: [brenda.rajanayagam@ahvla.gsi.gov.uk](mailto:brenda.rajanayagam@ahvla.gsi.gov.uk)

TSE Queries

Tel: **01932 359428**

Email: [tse.queries@ahvla.defra.gsi.gov.uk](mailto:tse.queries@ahvla.defra.gsi.gov.uk)

## **Despatch of samples**

***Each site has a responsibility to notify the testing laboratory as to the number of samples being sent.***

Please complete the attached AHVLA form and fax to 0191 266 3605

## **See Fallen Stock pre submission Fax**

AHVLA will be organising a courier service to collect samples. If this is not possible alternative arrangements may be made such as delivery to local AHVLA regional laboratory or postal service.

Existing cattle sites should follow their current transport arrangement and new sites should get in touch with AHVLA to agree a means of transport.

The sampling site is responsible for having the sample box packed correctly and ready for collection by the courier.

## **See packing instruction document**

Sites sampling on a less frequent basis may have a limited collection service. In these circumstances – samples must be stored in a refrigerator before collection. Samples should not be stored for more than 3 days. Samples sent on the same day of sampling will yield much better test results rather than stored samples and therefore we ask that the sites co-operate with the laboratories to get the best outcome.

AHVLA monitor the condition of packaging – all sites will be encouraged to keep packaging clean, pack in accordance with instructions and reduce contamination to a minimal level within the bioshield bag. As stated previously boxes can only be recycled if they are not contaminated.

## **Payment for sampling**

Sampling payments will be organised monthly and will be based on the number of samples tested at AHVLA by the last day of each calendar month.

Due to the time taken for both delivery and testing, some sampling will be paid for in the following month's payment.

## **Further information**

We would encourage all sampling sites to look at relevant pages on the AHVLA website for further information.

[www.defra.gov.uk/vla/science/sci\\_tse.htm](http://www.defra.gov.uk/vla/science/sci_tse.htm)

Sheep and goats dentition: <http://www.sheep101.info/201/acquiringstock.html>

Any other queries should be directed to AHVLA Weybridge unless otherwise stated in this document.

TSE Project leader  
Tel: **01932 359593**  
Email: [brenda.rajanayagam@ahvla.gsi.gov.uk](mailto:brenda.rajanayagam@ahvla.gsi.gov.uk)

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Email: [tse.queries@ahvla.defra.gsi.gov.uk](mailto:tse.queries@ahvla.defra.gsi.gov.uk)