Chapter 2.7 Specified Risk Material Controls

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1. Introduction

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1.1 Purpose

1.1.1 Key purpose

The correct removal and disposal of Specified Risk Material (SRM) in slaughterhouses and cutting plants is essential to minimise the risk to public health associated with Transmissible Spongiform Encephalitis (TSE) in cattle, sheep, and goats.

1.2 Legislation

1.2.1 Community legislation

Regulation (EC) 999/2001 (as amended) is directly applicable throughout all member states and lays down rules for the prevention, control, and eradication of certain TSEs.

Annex V of that regulation defines what SRM is and specifies that it shall be removed in appropriate premises. Such premises are:

- approved slaughterhouse, or other appropriate place of slaughter
- approved cutting plants additionally authorised for the removal of bovine Vertebral Column Specified Risk Material (VC-SRM) or mature ovine and caprine spinal cord. Commission Decision 2007/453/EC provides information on the Bovine Spongiform Encephalopathy (BSE) risk status of countries and regions

Regulation (EU) 2019/627 specifies official controls to verify continuous and effective FBO compliance concerning food safety.

1. Inspection and verification tasks – Regulation (EU) 2019/627 Article 29, 1 and 2:

a) check the removal, separation and where appropriate, marking of SRM

b) ensure the FBO takes all necessary measures to avoid contamination of meat with SRM during slaughter (including stunning) and removal of SRM.

2. Audit tasks – Regulation (EU) 2019/627 Article 29, 1 and 2:

a) Check that FBO procedures guarantee, that meat does not contain SRM except as provided for under Community legislation and has been produced in accordance with Community legislation on TSEs.

b) Verify continuous compliance with FBO's own procedures concerning controls on SRM.

Regulation (EC) 1069/2009 Articles 8 and 12 outline the requirements in relation to the classification and marking of SRM.

1.2.2 Domestic legislation

The TSE Regulations (NI) 2018 provide the enforcement powers for Regulation (EC) No 999/2001. In particular, Schedule 7 of these Regulations deals with the removal and handling of SRM in approved and additionally authorised premises in accordance with the EU Regulation.

TSE Regulations specifically prohibit:

- the sale or supply of any SRM, or food containing SRM for human consumption
- the sale or supply of any SRM for use in the preparation of any food for human consumption
- the use of bones or bone-in cuts of bovine, ovine and caprine animals for the production of mechanically separated meat (MSM)

Regulation: TSE Regulations (NI) 2018, Schedule 7, point 18

TSE Regulations (NI) 2018, Schedule 7, point 3

The Animal By-Products (Enforcement) Regulations (Northern Ireland) 2015 enforces Regulation (EC) 1069/2009 and Commission Implementing Regulation 142/2011 associated with the identification, segregation and disposal of Category 1 by-products i.e. SRM.

1.3 Definition of SRM

1.3.1 VPHP key issue

SRM is the tissues and parts of cattle, sheep and goats which present the highest risk of containing the infectious agents that cause TSEs. These tissues must be removed and disposed of in accordance with Article 12 of Regulation (EC) 1069/2009.

Annex V of Regulation (EC) 999/2001 provides the definition for SRM.

Whether a material is classified as SRM, will depend on the tissue/organ, age of the animal and the BSE Risk Status of the country of birth and residence of the animal.

For animals slaughtered outside approved premises, DAERA Veterinary Services Animal Health Group (VSAHG) Field Implementation Unit enforce the TSE Regulations.

All VPHP officers must be aware of the parts of animal carcasses that are classified as SRM.

This is summarised in the following tables:

Category and designation of bovine tissues from CR and NR countries			
Bovine Tissues		Controlled Risk Status	Negligible Risk Status
Over 12 months	Skull, excluding the mandible, including the brain and eyes, of bovine animals over 12 months	SRM	SRM
	Spinal cord of bovine animals over 12 months	SRM	SRM
Over 30 months	Vertebral column (backbone/spine) excluding the vertebrae of the tail, the spinous and transverse processes of the cervical, thoracic, and lumbar vertebrae and the median sacral crest and wings of the sacrum, but including the dorsal root ganglia, of bovine animals over 30 months	SRM	Not SRM
All ages	Tonsils of all ages	SRM	Not SRM[1]
	Mesentery (fold attaching the small intestine to the posterior body wall), including mesenteric fat, mesenteric ganglion complex and mesenteric nerves, of bovine animals of all ages	SRM	Not SRM
	Caecum (part of the large intestine) of all ages	SRM	Not SRM
	Last 4 metres of the small intestine of bovine animals of all ages (small intestine comprises of duodenum, jejunum and ileum)	SRM	Not SRM

Sheep and goats – UK and EU member states	
Animals over 12 months (or one permanent incisor erupted)	Skull, including the brain and eyes, and spinal cord (SC) **Note:** Skull does not include horns.

[1] Whilst the tonsils of bovines from countries or regions with a negligible risk status are not SRM, these should be removed hygienically and disposed of as animal by-product (Cat 2 or Cat 1) in accordance with Regulation (EC) 853/2004 Annex III, Section I, Chapter IV, point 16(a)

1.3.2 Determination of age at the slaughterhouse

It is necessary to know the age of cattle, sheep, and goats at slaughter, in order to know which tissues are SRM. See MOC Chapter 2.5 Animal Identification, for instructions on the determination of age for these species and the roles and responsibilities of the FBO and OV.

See Annex U of MOC MOC Chapter 2.6 TSE testing, for additional advice about the TSE testing requirements of such animals.

1.3.3 Categorisation according to BSE risk

Categorisation of BSE risk status is determined by the World Organisation for Animal Health (WOAH), and is used for the application of Annex V, point 11.3 of Regulation (EC) 999/2001.

Animals of Controlled Risk (CR) Status – Animals which have been born, continuously reared and slaughtered in a country or region classified in accordance with Article 5 of Regulation (EC) No 999/2001 as a country or region posing a controlled BSE risk. The carcases of these animals must be identified with a red stripe on the label to ensure the vertebral column is disposed of as SRM.

Animals of Undetermined Risk (UR) Status – Animals which have been born, continuously reared and slaughtered in a country or region classified in accordance with Article 5 of Regulation (EC) No 999/2001 as a country or region with an undetermined BSE risk. The carcases of these animals must be identified with a red stripe on the label to ensure the vertebral column is disposed of as SRM.

Animals of Negligible Risk (NR) Status **–** Animals born, continuously reared and slaughtered in a country or region classified in accordance with Article 5 of Regulation (EC) No 999/2001 as a country or region posing a negligible BSE risk. Animals born before 1st August 1996 are not eligible for the food chain.

The Annex to Commission Decision 2007/453 provides lists of countries and regions according to their BSE risk status.

Countries or regions with a controlled BSE risk:

Member states

- Greece

Third countries

- Mexico
- Nicaragua
- South Korea
- Taiwan

1.3.4 UK and RoI Negligible Risk Status

On the 4th of November 2025, the EU updated Commission Decision 2007/453 recognising Great Britain's (specifically England, Wales and Scotland) BSE Negligible Risk (NR) status granted by WOAH in May 2025.

From the 20th of February 2026, DAERA removed Controlled Risk (CR) BSE status from all Northern Ireland resident animals previously imported from countries with a NR BSE status.

Carcases, half carcases (or half carcases cut into no more than three wholesale cuts) and quarters from animals over thirty months of age (OTM) containing vertebral column originating from animals imported into Northern Ireland from countries declared NR (such as RoI, England, Wales or Scotland) are now considered to be BSE NR and therefore not required to have a red stripe label applied. The vertebral column is no longer required to be removed, handled and disposed of as SRM.

Note: Vertebral column from over thirty months animals born, reared or raised in the Isle of Man, Guernsey or Greece or any other territories with controlled or undetermined BSE risk is still considered SRM, therefore, a red stripe label must still be attached to carcases, half carcases (or half carcases cut into no more than three wholesale cuts) and quarters from those animals.

1.3.5 Bovine carcases originating from the Republic of Ireland

As per the DAERA DCVO letter to food businesses on 27 November 2025, all animals which have tags indicating Republic of Ireland Origin will be considered as originating from a BSE NR country.

The only animals/carcases imported from ROI which will be CR, are those born, reared or raised in a controlled or undetermined BSE risk country/region - most commonly Greece, Isle Of Man or Guernsey.

1.3.6 Transport and Disposal of Animal By-Products (ABP)

SRM is classed as category 1 ABP and must be removed, handled, separated, stained, stored and transported for disposal in accordance with the rules laid down by Regulation (EC) No. 1069/2009 as implemented by Regulation (EU) 142/2011, The Animal By-Products (Enforcement) Regulations (NI) 2015 and the TSE Regulations (NI) 2018.

A list of ABP approved plants can be accessed here.

Chapter 2.8 on Animal By-Products provides specific advice to VPHP staff on the official controls regarding ABP.

1.3.7 Material in contact with SRM

Any material that comes into contact with SRM or remains attached to SRM after it has been removed from the carcass is regarded as SRM.

Exception: bovine vertebral column which is designated as SRM (VC-SRM) by the table above and sheep and goat spinal cord which is SRM and may remain as part of the carcass until removed in a cutting plant additionally authorised for that activity.

1.3.8 Mechanically separated meat (MSM)

Cattle, sheep, or goat bones must not be used in the preparation of MSM.

Regulation: TSE Regulations (NI) 2018, Schedule 7, point 3

Regulation: TSE Regulations 999/2001, Annex V, point 5

2. Legislative Requirements – FBO responsibilities

2.1 SRM in slaughterhouses

2.2 Harvesting head meat

2.3 SRM in cutting establishments

2.4 Handling, storage and despatch of SRM

2.1 SRM in slaughterhouses

FBOs must comply with EU Regulations regarding the removal, segregation, identification and disposal of SRM.

FSA approved slaughterhouses[2], in accordance with Regulation (EU) 2017/625 Article 148 for the slaughter of bovine, ovine and caprine animals require no additional authorisation to remove SRM from the carcasses as part of the dressing process.

Additional authorisation is required for cutting plants (co-located and standalone) to remove bovine VC-SRM and spinal cord from sheep/goats over 12 months of age or with a permanent incisor erupted. Please see NI MOC Chapter 1 – Introduction for further information on cutting plant authorisation.

The removal and handling of SRM should be covered by the FBO's HACCP-based food safety management systems. Slaughterhouses slaughtering both CR and NR animals must have robust SOPs in place to ensure:

- correct identification of SRM material depending on the BSE risk category
- strict segregation between CR and NR carcasses and body parts
- correct labelling of carcases containing VC SRM

Operators of bovine and sheep/goat slaughterhouses must:

- receive check and act upon food chain information as regards determination of age and traceability to ensure identification and segregation of bovines from countries or regions of controlled or undetermined BSE risk
- have documented procedures in place to identify and segregate sheep/goats over 12 months of age or with a permanent incisor erupted

[2] as required in Regulation (EC) No 853/2004

- identify, segregate, stain and dispose of heads from sheep & goats over 12 months of age or with a permanent incisor erupted as Cat 1 SRM
- remove, segregate, stain and dispose of SRM from bovines and sheep/goats as Cat 1 SRM
- have documented procedures in place to identify and segregate those bovine carcases which contain vertebral column that is SRM (VC-SRM) and (where cutting locations are co-located) documented procedures to remove, segregate, stain and dispose of VC-SRM in compliance with the EU TSE Regulations

2.1.1 Pithing

Pithing is the practice of destroying an animal's brain and spinal cord by inserting a rod or similar instrument through the skull after stunning. It was historically used in slaughterhouses to ensure rapid death and is also used in some laboratory procedures.

Pithing is prohibited for bovine, ovine or caprine animals that are intended for human consumption. If pithing has been carried out in contravention of the regulations, the FBO must dispose of the carcass as category 1 animal by-product and take all necessary steps to clean all contamination with Central Nervous System (CNS) material from the area and equipment.

Regulation: (EC) No. 999/2001 Annex V, point 6. TSE Regulations (NI) 2018, Schedule 7 point 4.

2.1.2 The FBO must ensure that all SRM is:

- removed completely from the carcase as soon as practicable after slaughter and before the carcase is presented for post-mortem inspection and health marking
- removed by staff of the establishment who adopt the necessary hygiene measures to avoid the risk of cross-contamination e.g., avoid touching the carcass with hands or implements which have been used to remove, or come into contact with, SRM without being washed/cleaned in between
- handled in such a way that there is no contact with any other animal material not being treated as SRM

Only carcasses that have had SRM removed should be presented for postmortem inspection.

Exception: Bovine VC-SRM or sheep/goats spinal cord can still be present at post-mortem inspection point, provided the carcases are identified and segregated and that there is an agreed protocol in place for the removal of SRM at an additionally authorised establishment at a later stage.

2.1.3 Removal of SRM- spinal cord

The spinal cord must be removed from bovine, ovine and caprine carcases over 12 months of age. The canal should be sufficiently cleared using designated tools or a knife to ensure that no fragments of the spinal cord, meninges, fat, or debris remain in the spinal canal.

It is recommended that operatives removing spinal cord from bovine, ovine and caprine:

- avoid spinal cord and meninges coming into contact with the floor, or other surfaces of the slaughterhouse
- use clean, sterilised tools for each carcase
- wash and sterilise their tools after removal of SRM from each carcass

In addition, they should observe the normal GHP, for example

- cover chain mail gloves with rubber gloves
- change protective clothing as often as necessary
- wash hands frequently as required to prevent contamination

Regulation: (EC) No. 999/2001 Annex V, point 1 (a)(i) & (b). TSE Regulations (NI) 2018, Schedule 7 point 7.

2.1.4 Bone contamination

Band saws that have a water supply should have the water ducted away from the carcase. Where cleavers are used the operative should examine the carcass for fragments of SRM and trim any bone spicules and dispose of them as SRM.

Where bone dust is removed from the cut surface of the vertebral column using a low-pressure water wash, the washings must be prevented from causing unnecessary contamination of the slaughter hall or contaminating other carcasses.

2.2 Harvesting head meat

2.2.1 Harvesting bovine head meat

Bovine head meat should be harvested at the slaughterhouse where the animal was slaughtered, however bovine heads may be despatched to an approved cutting plant specifically authorised for this activity, where the head meat may be harvested under strict conditions.

Regulation: (EC) 999/2001 Annex V, point 9

The conditions for harvesting head meat at the slaughterhouse depends on whether harvesting takes place on the dressing/inspection line, or if the heads are removed from that line. In all cases:

- Harvesting must only occur after post-mortem inspection
- Control measures must be in place to prevent possible contamination of the head meat with CNS tissue. FBOs should ensure HACCP based procedures reflect the measures taken to prevent contamination of the head meat with CNS material

Meat must not be harvested from heads which have missing or damaged eyes.

Regulation: (EC) No 999/2001 Annex V point 8.

Head meat trimmings must not be used as a raw material for minced meat or meat preparations.

Regulation: (EC) 853/2004 Annex III, Section V, Chapter II, point 1(c)(iv)

Where head meat is harvested after removal of the head from the original dressing/ inspection line:

- the bolt hole (where present) and the foramen magnum must be sealed with a bung, stopper, or sponge. If the brainstem is required for TSE testing, the foramen magnum should be sealed immediately after sampling
- it must be harvested in a dedicated area physically separated from other parts of the slaughterhouse
- a sampling plan using an appropriate laboratory test to detect CNS tissue must be in place to verify the measures to reduce contamination are properly implemented

Regulation: (EC) No 999/2001 Annex V, 8.1

2.2.2 Removal of tonsils

Please refer to the diagram in Annex 1 which shows the location of the tonsils in bovine heads.

Whilst the tonsils of bovines from countries or regions with a negligible risk status are not SRM, Regulation (EC) 853/2004 requires the removal of all tonsils from domestic ungulates and solipeds hygienically and their disposal as animal by-product (Cat 2 or Cat 1).

Regulation: (EC) 853/2004 Annex III, Section I, Chapter IV, point 16(a)

The tonsils of bovines from countries or regions with a **controlled or undetermined risk status are SRM**

Lingual tonsil which is located behind the level of the last vallate papillae must not be harvested with the tongue.

The following standards must be met for harvesting all bovine tongues:

- complete flaying and washing of the detached head should have taken place
- to ensure removal of all tonsils, tongues must be harvested by a transverse cut rostral to the lingual process of the basihyoid bone. The cut should be made at the level of the last vallate papillae (see picture at Annex 2) at right angles to the surface of the tongue to ensure that lingual tonsil is disposed of as animal by-product
- tongues must be presented for post-mortem inspection and any additional inspections which may be required to confirm the removal of all tonsils

2.2.3 Bovine masks

Where bovine masks are destined for human consumption, a 5cm diameter around the bolthole should be removed and treated as SRM.

Masks may be handled as follows:

- left attached to the hide with a 5 cm diameter radius section around bolt hole removed (this section is CAT 1) – these hides (with masks attached) must be fully traceable and segregated from other hides if destined for human consumption (e.g. gelatine production). Please see NI MOC Chapter 9 – Hide Stores Authorised for the Collection and Storage of Hides for Gelatine or Collagen Production for more detail
- removed from hide:
  - with a 5 cm diameter radius section around bolt hole removed – these masks must be scalded and depilated if destined for human consumption. Please see NI MOC Chapter 2.12- Edible Co-Products, for more guidance on the treatment of cattle masks
  - no removal of 5 cm diameter radius around bolt hole – Category 1 Animal By-Product

2.2.4 Ovine heads

The FBO must have in place a robust system at the point of identification to ensure that heads from sheep under 12 months old are clearly separated from heads of sheep over 12 months old or with a permanent incisor erupted when the heads are separated from the carcasses. This system should ensure that the skulls of adult sheep (including the brain and eyes) are identified, handled and disposed of as SRM.

Where head meat is intended to be harvested, the horns must be removed, and the head must be completely skinned (this includes the tongue to be freed from the mandible) and

must pass postmortem inspection before head meat can be harvested. The skull and eyes should be kept intact before and after harvesting.

Adult ovine (over 12 months of age or with a permanent incisor erupted) head meat may only be harvested at slaughterhouses and only under strict conditions to the satisfaction of the OV. The FBO must have procedures in place to prevent contamination of the head meat with CNS material.

After head meat harvesting, the skulls of over 12 months of age or with a permanent incisor erupted must be disposed of as Category 1 ABP (SRM). Other heads (and horns) may be disposed of as Cat 3 ABP.

2.2.5 Conditions for the movement of food containing SRM from slaughterhouses

The table below summarises the conditions that must be met to move food containing SRM.

Regulation: (EC) 999/2001 Annex V, point 11.3(b)

Food containing SRM	Accompanied by	Transferred directly to	TSE Regulation (NI) 2018
Bovine VC-SRM from carcases of animals over 30 months of age with CR or UR BSE risk	CD / FBO document indicating number of carcasses or wholesale cuts containing VC-SRM	Approved and additionally authorised cutting plants	Sch. 7, Para 8(3a)
Ovine/goat carcases from animals over 12 months or with a permanent incisor erupted	CD / FBO document indicating number of carcasses with SRM to be removed	Approved and additionally authorised cutting plants.	Sch. 7, Para. 9(3)
Material for use in education or research purposes	ABPR 7	Diagnostic, educational or research premises (authorised by DAERA)	EC 1069/2009 Articles 16&17

Meat containing SRM cannot be exported outside the EU, this includes GB, see MOC Chapter 3.1 Export of Meat and Meat Products.

2.2.6 Despatch of bovine carcasses with VC-SRM from Slaughterhouses

For despatch of bovine carcases with VC-SRM within Northern Ireland and to other member states, the FBO must ensure that the receiving cutting plant is authorised to accept VC SRM.

The consignment must be accompanied with a commercial document stating the number of carcasses or wholesale cuts of carcasses containing VC-SRM.

Regulation: (EC) 999/2001, Annex V, point 10.3

Please see NI MOC Chapter 3.1 – Export of Meat and Meat Products for further information.

For the despatch of ovine carcases requiring the removal of spinal cord within Northern Ireland, the FBO must ensure the receiving cutting plant is authorised for that activity.

The consignment must be accompanied with a commercial document indicating the number of carcasses with SRM to be removed.

Ovine carcases requiring the removal of spinal cord may be exported to another Member State only after that Member State has agreed to receive the material and has approved the conditions of dispatch and transport.

2.3 SRM in cutting establishments

2.3.1 Authorisation of cutting plants to remove VC-SRM from bovine carcases, spinal cord from adult small ruminants or harvesting bovine head meat

Only cutting plants that have been additionally authorised can undertake the operations below:

- VC-SRM removal from bovine carcases from animals aged OTM at slaughter, born and reared in countries with a controlled or undetermined BSE risk
- VC-SRM removal from bovine carcasses from animals aged OTM at slaughter, imported from countries with a negligible risk
- harvesting of bovine head meat
- spinal cord removal from ovine/goat carcases from animals over 12 months of age or with a permanent incisor erupted

Regulation: Transmissible Spongiform Encephalopathies Regulations (Northern Ireland) 2018, Schedule 7 paragraph 13(1) and (14)

The list of approved cutting plants additionally authorised to remove VC-SRM and/or harvest head meat can be found at this link.

OVs involved in the authorisation process will seek to develop a more comprehensive understanding of the entire authorisation process.

2.3.2 Procedure: Application packs

Where a new application for VC-SRM authorisation is required, the OV should assist the FBO in contacting the FSA OPD Team at the following email address NIOperationalPolicy@food.gov.uk

2.3.3 Procedure: Recommended Method of Operation - RMOP

FBOs of stand-alone cutting plants seeking authorisation should contact the DVO in the first instance. The DVO will organise assistance through the Cutting Plant Compliance Team.

In the case of co-located cutting premises, the resident OV should be the first point of contact to assist FBOs when completing a RMOP. In dealing with FBO queries, the OVs should play an advisory role using their professional knowledge. In case of doubt, the OV will consult on the appropriate course of action with the regional DVO.

2.3.4 Authorisation supervision

Once the establishments are authorised, the responsibility for keeping the procedures up to date remains with the FBO. Supervision of the removal of VC-SRM by VPHP will initially be 100% until the OV is satisfied to determine the frequency based on risk. The VPHP will also verify compliance during FBO audits, UAIs and any other routine visit, including verification that any VC-SRM authorisation held by the establishment remains current, valid and effective.

The OV should refer to this chapter and Chapter 7 Enforcement for further instruction where the FBO has not complied with legislative requirements.

2.3.5 VC-SRM removal

The following standards must be met for the removal of VC-SRM:

- FSA authorisation for bovine VC-SRM removal: The cutting plant should hold the appropriate additional FSA authorisation (which includes a RMOP and/or SOPs. The list of establishments authorised to remove VC from bovines OTM is available online. For more information on the application process contact NIOperationalPolicy@food.gov.uk
- The agreed SOP/RMOP should include as a minimum the following:
  - effective separation of carcasses and wholesale cuts containing VC-SRM, and other carcasses is maintained or in the case of mixed batches the VC of all carcasses and wholesale cuts is treated as SRM
  - deboning is carried out in a single batch on a dedicated line or by some other arrangement agreed between FBO and the OV
  - appropriate cleansing and disinfection of equipment and surfaces is implemented after each batch of meat containing VC-SRM has been processed
  - carcasses with VC-SRM are traceable through the storage and boning process
  - where VC SRM is not removed as soon as reasonably practicable after arrival at the cutting plant (e.g., aging of bone-in loins) a procedure should

be included to ensure the traceability of the meat and that all VC-SRM is removed before dispatch from the cutting plant

- arrangements for separation, identification and disposal of Category 1- SRM

2.3.6 Permitted cuts containing VC-SRM

It is permitted to import the following from EU member states and GB, providing that they are consigned directly to an approved cutting establishment additionally authorised to remove VC-SRM:

- whole carcasses, or
- half carcasses cut into no more than 3 wholesale cuts, and
- quarter carcasses, with the VC remaining,

All carcasses or wholesale cuts of carcasses containing VC-SRM must have a red stripe label applied. Carcases with a red stripe require the VC removed, handled and disposed of as SRM as per agreed RMOP.

Note: All SRM must be removed as soon as reasonably practicable and before the meat leaves the cutting plant therefore retail packs should not contain SRM.

2.3.7 Non-permitted cuts containing SRM VC-SRM

A half carcass can only give rise to a maximum of three wholesale cuts therefore any further sub-division into smaller cuts containing VC-SRM is not permitted.

2.3.8 FBO responsibility for beef containing VC-SRM

To facilitate supervision required by the FSA, the FBO must give VPHP a minimum of 24 hours advance notice (or otherwise as stated in the premises' RMOP) of VC-SRM removal.

2.3.9 FBO documents

In addition to the details required in Article 3 of Commission Implementing Regulation (EC) 931/2011- traceability requirements, the commercial document accompanying the consignment must specifically indicate the number of bovine carcasses or cuts from which removal of VC as SRM is required:

Regulation: (EC) No 999/2001, Annex. V, 11.3(b)

2.3.10 Boning practices

For animals aged over 30 months, the dorsal root ganglia should also be removed and disposed of as Cat 1 ABP. Please see Annex 3 for further guidance on the identification of SRM and the removal of dorsal root ganglia.

Traditional boning practices, which aim to maximise yield by removal of bones cleanly and individually, increases the likelihood that Dorsal Root Ganglia (DRG) will remain with the

meat. Sheet boning of ribs, where the ribcage is removed in one piece without further trimming, reduces this likelihood. As a best practice, the cut separating the edible muscle from the vertebral column should be made approximately 2.5 cm (1 inch) from the vertebral arch to ensure no DRG is inadvertently included with the edible meat.

Also, removing the fillet by pulling it out as opposed to cutting it out will reduce the potential for the DRG to remain within the meat.

The proper use of circular saws to remove vertebral column can be effective if the cut lines are in the correct place, however poor practices e.g. cutting along the wrong lines, will increase the risk of leaving part of the vertebra or DRG behind.

FBOs should ensure operatives are fully trained in the correct use of equipment to achieve compliance with SRM removal requirements.

2.4 Handling, storage and despatch of SRM

2.4.1 Training

The FBO must ensure that all staff involved in the removal, separation, staining and disposal of SRM are fully aware of the tasks and procedures, so they can operate a system that complies with the Regulations. The FBO must keep a documented record of this training.

Regulation: TSE Regulations (NI) 2018, Schedule 7 point 2

2.4.2 Security of SRM material

Pending consignment or disposal from the establishment, the FBO must ensure that:

- SRM is adequately separated from any food
- SRM is held in impervious covered containers
- SRM containers are properly labelled
- each time an SRM container is emptied it is thoroughly washed as soon as practicable and disinfected before use for any other purpose

Regulation: TSE Regulations (NI) 2018, Schedule 7 point 17

2.4.3 Labelling of SRM containers

All SRM containers are marked as:

- Colour coded if used within the processing area, or
- Specified Risk Material or
- Category 1 by-products – For disposal only

Regulation: TSE Regulations (NI) 2018, Schedule 7 point 17 & Regulation (EC) No 1069/2009

2.4.4 Stain/identification

The FBO should ensure that:

- there is a sufficient supply of a blue colouring agent e.g. Patent Blue V (E131, 1971 Colour Index No. 42051)
- the solution is of such strength that the staining is clearly visible and remains visible after the specified risk material has been chilled or frozen
- data sheets are available

Reference: TSE Regulations (NI) 2018, Schedule 7, point 16(2)(a)

The FBO should ensure that all SRM is stained immediately after removal from the carcass with a blue colouring agent in such a way that avoids risks of contamination of fresh meat. The stain must be applied even if it is going for rendering or incineration on site.

Regulation: (EC) No 999/2001, Annex V, point 3

Reference: TSE Regulations (NI) 2018, Schedule 7, point 16

The stain is applied to each layer of SRM in such a way as to ensure adequate coverage.

The stain must be visible over 100% of the surface of all SRM except sheep and goat heads where it needs to be clearly visible over the whole of the cut surface and majority of the head.

Regulation: (EC) No 999/2001, Annex V, point 3

Reference: The Animal By-Products (Enforcement) Regulations (Northern Ireland) 2015 Regulation 12

Reference: TSE Regulations (NI) 2018, Schedule 7 point 16(2)(b)

2.4.5 Mixing of animal by- products

SRM is category 1 animal by-product (ABP) and must be disposed in accordance with ABP Regulations. Where other animal by-products are mixed with SRM all must then be disposed of as category 1 ABP.

2.4.6 Consignment of SRM

The FBO must have:

- made arrangements for adequate transportation (for further info see Animal By-products chapter)

- proper records of SRM consigned to approved incinerators or rendering establishments in accordance with ABP Regulations

Regulation: (EC) No 142/2011, Annex VIII, and Regulation (EU) 142/2011.

- additional records if unstained SRM is being consigned for TSE testing, research, educational or veterinary purposes

2.4.7 Specified solid waste management

All drains in areas where SRM is handled / processed should have drain traps or gratings in place, for management of specified solid waste, which are a maximum size of 6 mm. All material collected by these traps/gratings must be treated as category 1 animal by product.

Regulation: Regulation (EC) No 142/2011, Annex IV, Chapter 1, Section 2.

3. VPHP Duties

3.1 VPHP responsibilities

3.2 Inspection Tasks

3.3 Inspection and Verification Tasks at Slaughter

3.4 Inspection and Verification Tasks at cutting plants

3.5 Audit of SRM controls

3.6 Enforcement

3.1 VPHP responsibilities

3.1.1 VPHP duties

The VPHP duties relating to SRM which focus on ensuring that the FBO continually and effectively complies with the legislation.

These tasks include:

- checks to verify the FBO correctly identifies animals where additional controls are required e.g. cattle from countries/regions with CR status, correct marking of bovine carcases requiring VC-SRM removal and dentition checks for sheep/goats to determine if they are over 12 months or with a permanent incisor erupted

Reference: Chapter 2.5 Animal Identification

- inspection of all carcasses to ensure the complete removal of spinal cord
- checks to verify that the FBO complies with legal requirements regarding separation, identification, staining and disposal of SRM as detailed above
- audit of good hygiene practice (GHP), FBOs own procedures for handling and disposal of SRM and FBO's HACCP based procedures for ensuring the meat does not contain SRM; and
- appropriate enforcement action in the event of non-compliance

3.2 Inspection Tasks

3.2.1 Inspection and verification tasks for SRM in Regulation (EU) 2019/627

In accordance with specific Community rules on SRM and other animal by-products, the OV is to check the removal, separation and, where appropriate, marking of such products. The OV is to ensure that the FBO takes all necessary measures to avoid contaminating meat with SRM during slaughter (including stunning) and removal of SRM.

Regulation: (EU) 2019/627 Article 29

3.2.2 Specific community rules on SRM

There must be frequent inspections to verify the correct application of requirements in Regulation (EC) 999/2001 concerning SRM and slaughtering techniques. These must ensure measures are taken to avoid contamination in places where SRM is removed and there must be a system to ensure that SRM is only used for authorised purposes and/or is disposed of in accordance with (EC) 1069/2009.

Regulation: (EC) No 999/2001 Annex V, point 11.

3.3 Inspection and Verification Tasks at Slaughter

3.3.1 Inspection and verification tasks in slaughter plants

The frequency of supervision must be regularly reviewed by the OV and the outcome recorded in the plant day book.

The OV must assess the risk of FBO failure to comply with SRM controls and amend the frequency of checks accordingly. If there are any areas of ABP and/or SRM handling that change within the premises, (including revisions to SOPs, work procedure, or layout changes the OV must assess the risk of failure to comply with SRM controls and amend the level of checks accordingly.

Where a non-compliance is found, the frequency of supervision can be increased / enforcement action taken as deemed appropriate by the OV.

It is important that supervising officers know the procedures laid down in the FBO's RMOP/SOP so actual practices can be checked for compliance with these. Any non-compliances are to be subject to enforcement in the usual way.

Any special circumstances or OV concerns relating to risk within an establishment must be discussed with VPHP management.

3.3.2 Frequency of SRM checks at slaughterhouses:

The table below lists the frequency of the inspection and verification checks that should be carried out, who can carry out the task and the frequency of the tasks.

Verification- FBO animal identification	By	Frequency
Cattle Verification FBO checks on animals' identity/age. See Chapter 2.5 Animal identification for additional information.	OV	Daily
Ovine/Caprine Verify FBO dentition checking procedures The FBO must establish a system that allows the FSA to be confident that carcases that require their spinal cord to be removed as SRM	OV or MI	Daily 5% of ovine / caprine presented as "under 12 months of age'. These checks should be random throughout the day, and take place in 'real time', (as the FBO representative performs the check).
Inspection – removal of SRM	**By**	**Frequency**
Carcase inspection: Carry out an inspection of every carcase presented to ensure that all SRM has been removed (apart from bovine VC and sheep spinal cord where applicable).	OV or MI	Every carcase
Application of stamps: **Bovine**: Apply Health Mark stamp when the meat is declared fit for human consumption and all SRM (except VC-SRM) Note: Carcases with BSE test results pending must be kept secure under VPHP control until a negative BSE test result is received. See Chapter 2.6 on TSE testing for further information. **Ovine / Caprine:**	OV or MI	Every carcase

Apply Health Mark stamps when the meat is declared fit for human consumption and all SRM (except spinal cord, where carcases are to be sent with spinal cord attached for it to be removed at an authorised cutting plant) has been removed.		
Verification – removal, handling, staining and disposal of SRM	**By**	**Frequency**
Skulls (excluding the mandible but including the brain and eyes Verify FBO procedures by checking 5% throughout daily production removal of skulls	OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.
Bovine Green offal Verify FBO procedures by checking removal of caecum, mesentery and the last four metres of small intestine from CR bovine animals.	OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.
Chutes and containers Verify chutes are clearly labelled and that containers are closable, leak-proof, and correctly labelled	OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.
Staining Verify that FBO staining procedures ensure SRM is adequately covered with appropriate dye across all surfaces before despatch	OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.
Practices Verify that FBO has effective measures to avoid contaminating meat with SRM / CNS material during slaughter and dressing, e.g., dedicated tools, GHP etc. Verify that FBO has effective measures to avoid contaminating meat with SRM / CNS material	OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.

during head meat harvesting, e.g., on-line harvesting, GHP etc. Verify that FBOs harvesting head meat off-line, have a sampling plan in place to test head meat for CNS contamination Verify that FBO has effective measures to avoid contaminating tongues with SRM / CNS material during slaughter and dressing, e.g., GHP etc.		
SRM reconciliation Inspect the FBOs records of SRM consignments to ensure despatch to approved Cat 1 rendering facility. Reconcile the FBO SRM weight records with the number of animals slaughtered in the relevant consignment	OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.
Carcase identification: Carcases from CR animals have **a red stripe label** attached Any other label can be used for identifying carcases or wholesale cuts of carcases of bovine animals containing VC that are not required to have the VC removed	OV or MI	Daily.
Consignments of carcasses or wholesale cuts of carcasses of bovine animals containing VC-SRM Verify FBO procedures to ensure that carcasses or wholesale cuts of carcasses of bovine animals containing VC-SRM are identified by a clearly visible red stripe on the label and that these are despatched to appropriately authorised establishments The list of establishments authorised to remove VC from bovines OTM is available.	OV or MI	Spot checks (including documentation) at the time of despatch.

Documentation	By	Frequency
SRM01 - SRM Slaughter Checklist	OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.
SHV checklist	OV or MI	As per VPH25
Chronos	OV or MI	Exception reporting for enforcement purposes
Daybook Records	OV or MI	As required, to facilitate contemporaneous record-keeping and ensure an effective handover of information.

3.3.3 Ovine/caprine SRM

It is the FBO's responsibility to verify ovine age and to comply with SRM requirements.

The FBO's FSMS should include dentition checks (please see Annex 4) on ovine animals to ensure all animals requiring head and spinal cord removal as SRM are appropriately identified.

The OV must be satisfied that the FBO systems provide the confidence required to apply the health mark after the removal of SRM and completion of post-mortem inspection.

Checks should be undertaken to verify that these systems are operating effectively, with a minimum of 5% of throughput reviewed daily. The OV must also use other information available to him to assist in this verification task, for example, Food Chain Information (FCI), and the previous history of that particular establishment with respect to the number of ovine/caprine carcasses that require splitting to allow spinal cord removal.

Note: OVs should be aware that:

- processing patterns may change from year to year
- the number of animals presented requiring spinal cord removal varies according to the time of year
- the location of provenance of the sheep / goats can change
- the range and number of suppliers or sources from which the FBO might use in procuring animals

From 27th April 2026, the Young Lamb and Young Goat stamps are no longer applied in Northern Ireland by FSA authorised officers.

3.3.4 Estimated weights

Table below gives estimated weights for SRM. These should be used for monthly reconciliation checks.

Bovine SRM	Approx. weight of SRM (assuming liveweight of 500 kg)
Intestines: large and small- empty (less mesenteric fat)	17kg
Intestines: large and small- full (less mesenteric fat)	26kg
Intestines: large and small- empty (including mesenteric fat)	29kg
Intestines: large and small- full (including mesenteric fat)	38kg
Head minus masseters (including brain and tonsils, but less tongue)	12kg
Head minus mandible (including brain and tonsils, but less tongue)	10kg
Spinal cord	1 kg

Ovine SRM	Approx. weight of SRM
Head (ewe)	2.5 kg
Head (hogget)	2 kg

3.4 Inspection and Verification Tasks at Cutting plants

3.4.1 Scope of instructions

The inspection and verification duties detailed below relate to cutting plants additionally authorised for the removal of

- VC-SRM i.e. from bovine animals born and reared in a country or region of controlled or undetermined risk
- spinal cord of sheep and goats over 12 months of age or with a permanent incisor erupted

Inspection – removal of SRM	By	Frequency
VC-SRM removal removal of vertebral column from bovine animals born and reared in a	OV or MI	Spot checks whilst in premises for official controls e.g. audit and UAI

country or region of controlled or undetermined risk		
Spinal cord removal removal of spinal cord sheep and goats over 12 months of age or with a permanent incisor erupted	OV or MI	Spot checks whilst in premises for official controls e.g. audit and UAI
Final meat / carcass inspection Inspect a representative sample of meat post VC / SC removal from bovine, ovine and caprine animals	OV or MI	During supervision
Verification – removal, handling, staining and disposal of SRM	**By**	**Frequency**
VC-SRM Segregation Verify FBO procedures ensure the correct segregation and collection of VC-SRM	OV or MI	During supervision
Staining Verify that FBO staining procedures ensure SRM is adequately covered with appropriate dye across all surfaces before despatch	OV or MI	During supervision
Containers Verify chutes are clearly labelled and that containers are closable, leak-proof, and correctly labelled Verify equipment is cleansed and disinfected as required before re-use	OV or MI OV or MI	During supervision During supervision
Practices Verify that FBO has effective measures to avoid contaminating meat with SRM during cutting e.g., dedicated tools, GHP etc.	OV or MI OV or MI	During supervision During supervision

Verify that the FBO does not apply the identification mark until after all VC-SRM has been removed		
SRM reconciliation Inspect the FBOs records of SRM consignments to ensure despatch to approved Cat 1 rendering facility. Reconcile the FBO SRM weight records with the number of animals	OV or MI OV or MI	One randomly selected week per month One randomly selected week per month
Documentation SRM02 – VC-SRM Cutting Plants Checklist VPH19 (unsatisfactory consignment report)	OV or MI OV or MI	Frequency of checks should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.

3.4.2 SRM Inspection Frequency in Cutting Plants

The change in GB BSE risk status from 'controlled' to 'negligible', and the acceptance of the 'negligible' BSE risk status in RoI, resulted in a significant reduction in the number of animals and carcases requiring the removal of vertebral column as SRM.

FBOs of cutting plants authorised for bovine VC-SRM removal will need to notify DAERA with at least 24 hours of when these operations will take place so supervision can be organised.

Verification of compliance at cutting plants will continue through the regular official controls (Unannounced Inspections and FBO compliance audits).

Any special circumstances or OV concerns relating to risk within an establishment must be discussed with VPHP management.

3.4.3 Recording documents

In cutting plants, SRM 02 (VC-SRM Cutting Plant Checklist) must be completed where CR carcases are being processed.

3.5 Audit of SRM controls

3.5.1 Official control requirements

In addition to audits of GHP, the OV is to verify continuous compliance with FBOs' own procedures concerning any collection, transport, storage, handling, processing and use or disposal of SRM, for which the FBO is responsible.

More specifically as part of the audits of FBO HACCP-based principles, the OV is to check that the FBOs' procedures guarantee, to the extent possible, that meat does not contain SRM, except as provided for under Community legislation, and has been produced in accordance with Community legislation on TSEs.

Regulation: (EU) 2019/627 article 29

Audit	By	Frequency
Audit of FBOs procedures for SRM control to verify the FBO continuous compliance with SRM legislation relating to: • collection • storage • handling • processing • use • transport • disposal Audit of HACCP based procedures to check they guarantee: • meat does not contain SRM, except as provided for in legislation • has been produced in accordance with Community legislation on TSEs	**OV**	Frequency should be risk-based and determined by the OV, using professional judgement, taking account of observations, findings and compliance history at the establishment.

3.6 Enforcement

3.6.1 Requirement of FBO to comply with regulations

The FBO is required to comply with certain standards laid down in the hygiene and TSE legislation which require that all bovine SRM, except VC-SRM, is removed before presentation for post-mortem inspection.

In the case of sheep and goats all SRM (other than the spinal cord in unsplit carcasses) is removed before presentation for post-mortem inspection or final SRM inspection. The health mark must not be applied unless the unsplit carcases are being despatched to a cutting plant specifically authorised for the removal of spinal cord.

Regulation: TSE Regulations (NI) 2018, Schedule 7, Paragraphs 8 and 9.

3.6.2 FBO fails to comply with regulations

If the FBO fails to comply with the regulations the Authorised Officer (AO) must:

- Notify the FBO of all deficiencies as soon as possible
- Assess the breach verifying the root cause analysis undertaken by the FBO and take proportionate enforcement action including evidence gathering.
- Record the breach in Chronos and Daybook.

Effective SRM controls remain a high priority for FSA and VPHP, and it continues to be an expectation of 100% FBO compliance.

3.6.3 SRM detected at post-mortem inspection (carcases, or body parts)

The FBO is responsible for the removal of the SRM before the carcase or body parts are presented for post-mortem inspection.

If the AO finds SRM (other than bovine VC SRM) in the carcase or in body parts at the designated post-mortem inspection point, the incident must be brought to the FBO's attention immediately. Evidence (i.e. pictures and a sample of SRM tissues) should be gathered at all stages and in all instances as part of the process and recorded in the Daybook and Chronos.

The FBO should carry out a root cause analysis following detection of each non-compliance to identify the cause and prevent recurrence.

3.6.4 SRM is found at a cutting establishment (excluding VC consigned to a CP authorised for VC-SRM removal)

Carcases containing VC-SRM must only be despatched to authorised cutting plants. Operators of unauthorised cutting plants should consider the risk of SRM being present in incoming carcases as part of their food safety management system.

If OTM carcases with VC-SRM or unsplit ovine carcases with spinal cord have been unlawfully or inadvertently dispatched to non-authorised CPs, or where spinal cord has been detected in bovine carcases of any age, the receiving FBO should immediately be made aware, evidence should be gathered and appropriate enforcement action taken. The OV must also immediately inform the OV at the despatching premises and complete an unsatisfactory consignment report (VPH19). Details must also be recorded on Chronos.

The OV must also inform the regional DVO. It is the DVO responsibility to inform FSA.

3.6.5 Evidence gathering for SRM contraventions

If the FBO presents carcass(es) with SRM for inspection; or offal containing SRM is being harvested, the following enforcement action should be taken by VPHP operational staff:

- detain carcass(es) / offal under VPHP control (if necessary, using a Detention Notice issued under Regulation 9 (5) of the Food Hygiene Regulations (Northern Ireland) 2006)
- obtain photographic evidence of the SRM in situ
- obtain corroboration of findings from other VPHP staff member if possible
- retain a sample of the SRM as evidence, freeze it to preserve its condition (until the case is concluded) and store it in a secure location (i.e., lockable freezer under VPHP control)
- make contemporaneous detailed records in the plant's Daybook
- notify the FBO
- record details via Chronos

On completion of evidence gathering, and the removal of all SRM, the carcass / offal may be health marked and enter the food chain.

In the event of severe or repeated incidents, the OV should consider referring the offence for investigation with a view to prosecution for non-compliance with TSE Regulations.

Note: Statutory notices such as Hygiene Improvement Notices and Remedial Action Notices cannot be used directly where there is failure to remove spinal cord. However, a Hygiene Improvement Notice may be used indirectly where the evidence clearly demonstrates the failure of the FBO to implement an effective HACCP based system.

Reference: The Transmissible Spongiform Encephalopathies Regulations (Northern Ireland) 2018, regulation 6(g) which refers to Schedule 7 of the same regulations.

Reference: Regulation (EC) 852/2004, Article 5 enforced by The Food Hygiene Regulations (Northern Ireland) 2006, regulation 17 which refers to Schedule 2 of the same regulations.

3.6.6 Record of action taken

Enforcement action must be recorded on the Daybook, VPH 14 and Chronos as required by the instructions in MOC Chapter 7.

3.6.7 Imported meat

If the OV / OA finds final product (carcasses / offal) containing SRM the evidence gathering is to be undertaken in the same manner as described on 3.5.4. Local DVO will have to be immediately notified who will inform FSA Consumer Protection Team via email.

4. Other specific SRM handling requirements

4.1 Intestines and mesentery – from animals born and reared in country or region of controlled or undetermined BSE risk

4.2 Exceptions to requirement to stain SRM

4.1 Intestines and mesentery – from animals born and reared in country or region of controlled or undetermined BSE risk

The last four meters of small intestine, caecum and mesentery from bovine animals of all ages born or continuously reared in a country or region with a controlled or undetermined BSE risk status are considered SRM.

The mesentery is the connective tissues attached to the intestinal loops including the fat. Mesentery including mesenteric fat—needs to be removed. Most likely it will require the small intestine and large intestine to be run off in order to remove mesentery (including mesenteric fat).

4.1.1 Removal and separation of green offal

Green offal must be removed completely and hygienically from the carcass by operatives and be presented for inspection.

After inspection total separation of the SRM from other green offal must be carried out in the gut room. The last four meters of the small intestine, the caecum, and the mesentery, (see Annex 5) which are categorised as SRM, must be placed, without unnecessary delay, in an SRM bin and stained.

Gut contents can be removed.

Note: If the operator does not wish to separate green offal from SRM, it must all be stained and treated as category 1 animal by-product.

4.2 Exceptions to requirement to stain SRM

SRM may only be removed from approved establishments without prior staining in the following circumstances:

- whole bodies of dead cattle, sheep, or goats
- consignments for educational, diagnostic (residues) or research purposes

- consignment to approved premises for the manufacture of products not connected with food

4.2.1 Procedure

Form ABPR 7 is used to monitor the despatch of unstained SRM for educational, diagnostic or research. The applicant must complete it in advance of unstained SRM being removed from the premises and be registered with DAERA to receive the material. Note that it is not necessary to use this document for dispatch of SRM for routine diagnostic purposes, e.g., brain stem samples for TSE testing as the test is required by legislation.

Stage	Description
1	Applicant completes ABPR 7 and sends form to ABP Section Jubilee House by email: applications.aiabp@daera-ni.gov.uk
2	ABP Section will provide a registration number to the applicant.
3	The applicant can present the registration number and details to the FBO and OV when requesting/ receiving SRM for the stated purpose.
4	FBO decides whether to supply the SRM and provides dispatch documentation as appropriate.

4.2.2 Dispatch of SRM for the manufacture of products not connected with food

FBOs may dispatch SRM to approved premises for the production of technical products. This is permitted by Regulation (EC) No 1069/2009 Article 36.

The FBO must ensure that the receiving establishment is appropriately approved. The material for transport must be identified as described in Regulation (EC) No 142/2011, Annex VIII, Chapter II, particularly labelled as laid down in 2 (b) (iii) of that chapter.

“For manufacture of derived products only. Not for human or animal consumption or for application to land.”

If the receiving premises is in another Member State, the FBO must have a licence from the authorities in the receiving MS to send the material.

4.2.3 Checks on FBOs records

The VPHP officer must check the FBO's records of despatch of unstained SRM to verify that it is going to a permitted destination.

5. Annexes

Annex 1 Location of tonsils in domestic ungulates and solipeds

Annex 2 Bovine tongue reference card

Annex 3 Removal of vertebral column that is SRM (VC-SRM)

Annex 4 Aging sheep and goats by dentition

Annex 5 Removal of SRM from controlled or undetermined risk bovine intestines

Annex 1: Location of tonsils in domestic ungulates and solipeds

Diagram showing location of tonsils

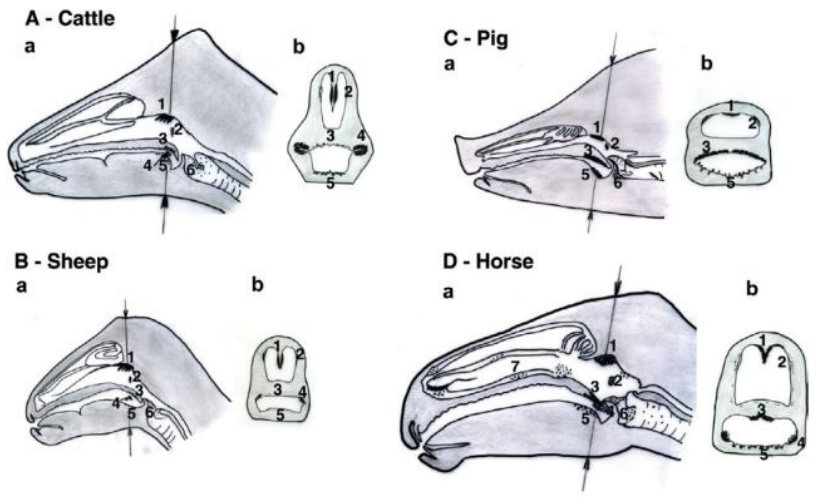


Figure 2. Distribution of lymphoid tissues of Waldeyer's ring (1–pharyngeal tonsil, 2–tubal tonsil, 3–tonsil of the soft palate, 4–(entrance to) palatine tonsil, 5–lingual tonsil), LTALT (6) and NALT (7) in cattle (A), sheep (B), pig (C) and horse (D), median (a) and transversal section (b, plane indi-

The legislative requirement in Regulation (EC) 853/2004 to remove tonsils applies to cattle, pigs and horses and is the same regardless of BSE risk status in cattle.

Regulation (EC) 853/2004, Annex III, Section I, Chapter IV

16. After post-mortem inspection:

(a) the tonsils of bovine animals, porcine animals and solipeds must be removed hygienically;

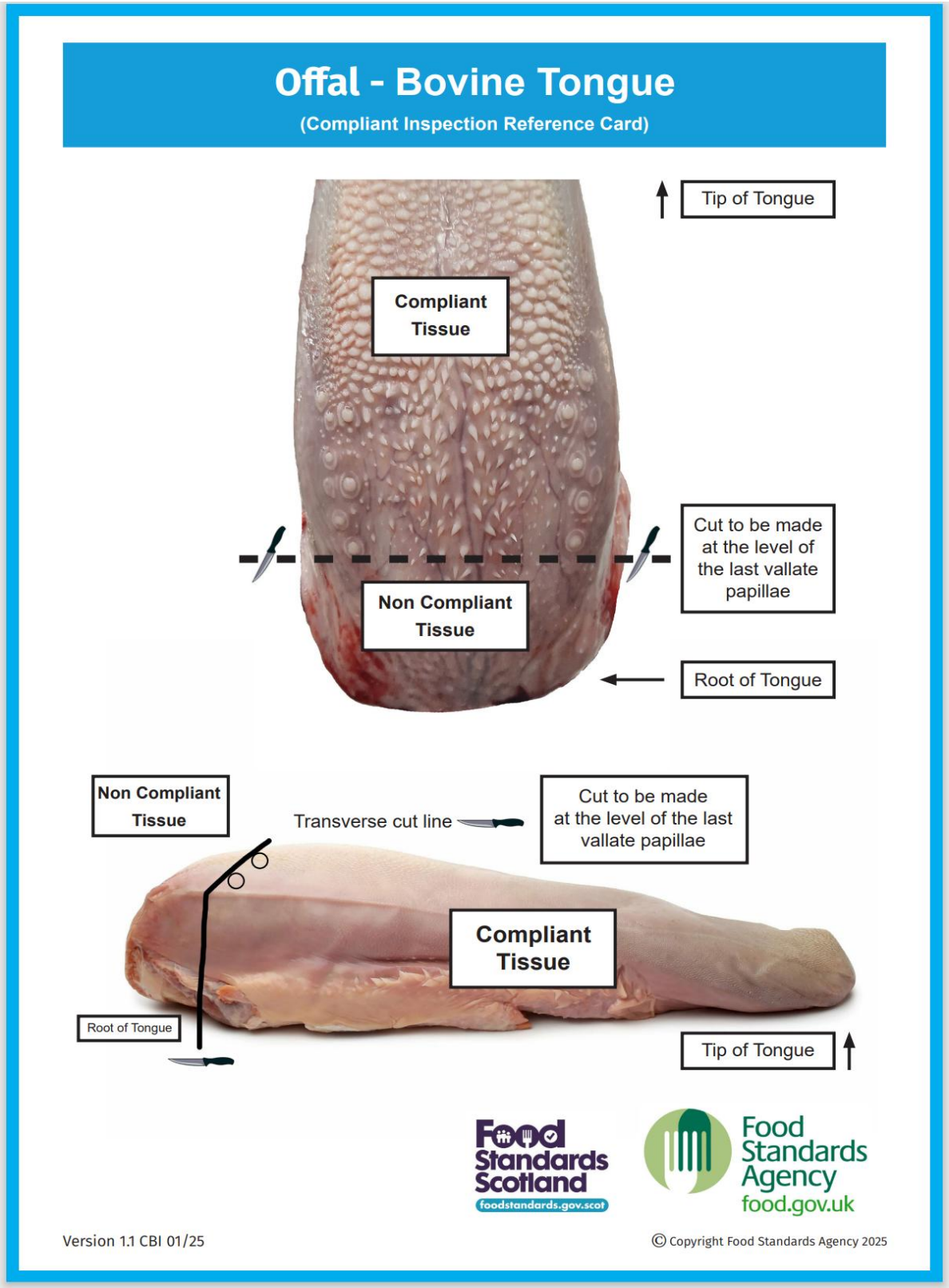
As a result of routine slaughter and dressing, the pharyngeal tonsil (1), the tubal tonsil (2) and the LTALT (6) will most likely remain with the skull and as such should not enter the food chain. However, if the OV is uncertain, they should ensure this is the case.

Due to their proximity to the tongue, the tonsil of the soft palate (3), the palatine tonsil (4) and the lingual tonsil (5) are those which require more attention to ensure they are removed hygienically and treated as ABP.

The last vallate papillae remains the clearest reference point for harvesting the cattle tongue. The cut should be made at that level.

Any material behind the last vallate papillae is deemed to contain lingual tonsil.

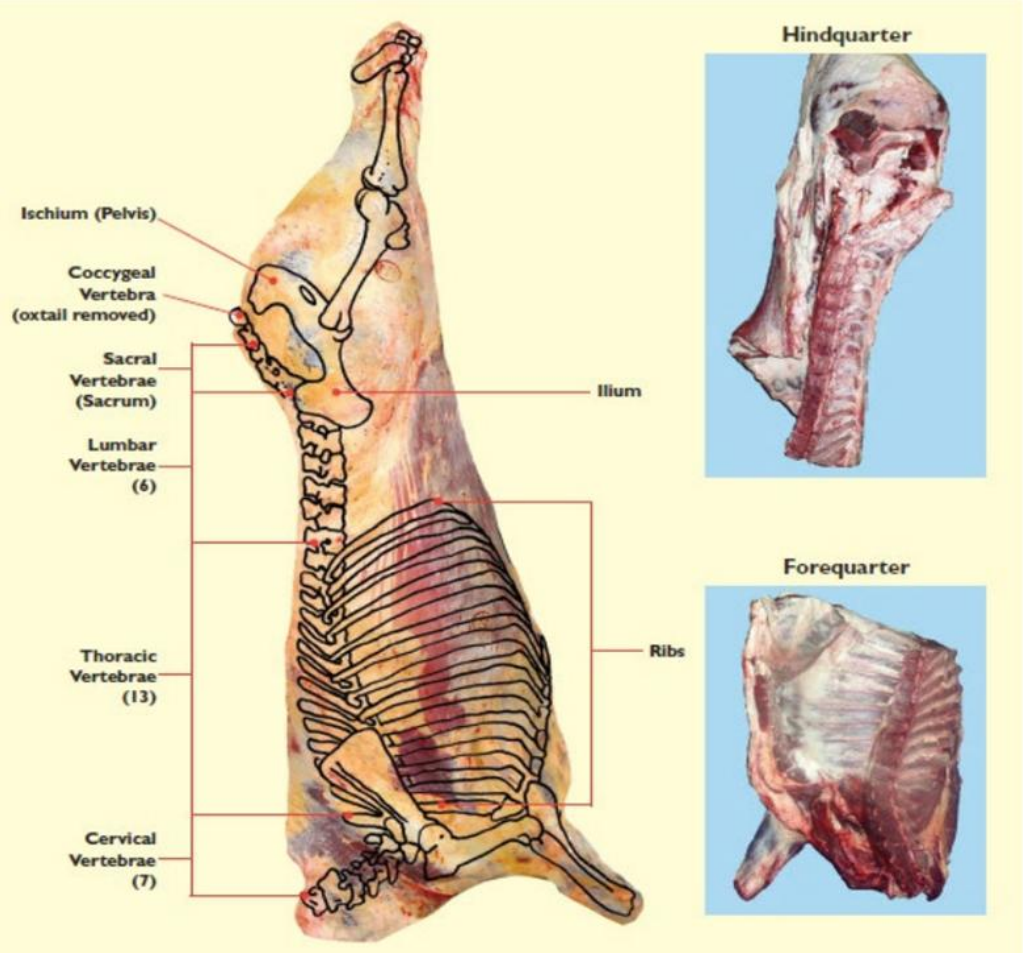
Annex 2: Bovine tongue reference card



Annex 3 Removal of vertebral column that is SRM (VC-SRM)

Guide to removal of VC-SRM from primal cuts

Meat chart to understand the beef skeletal anatomy associated with the hindquarter and forequarter.



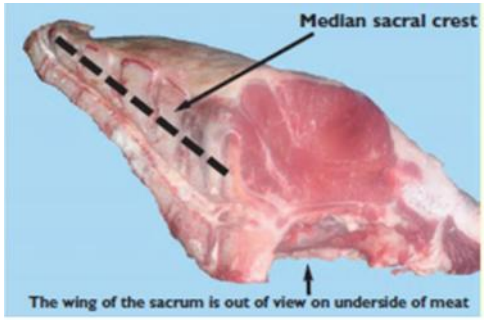
GLOSSARY

- Central part of Vertebral Column: Chine bone (regional variations may apply)
- Ilium: Hip bone / rump bone
- Sacrum: The bone formed by the fusion of the sacral vertebrae
- Median sacral crest: The fused sacral spinous processes
- Spinous process: Feather bone (regional variations may apply)
- Transverse process: Finger bone (regional variations may apply)
- Wings of the sacrum: Modified or reduced transverse processes of the sacrum

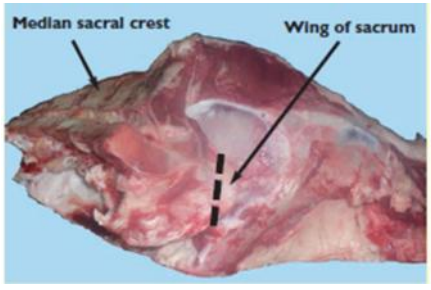
How to identify SRM for removal

Sacral vertebrae (including the median sacral crest and wings of the sacrum):

RUMP



Rump showing medial sacral crest. Dotted line indicates the portion of the sacral crest that could be left attached to the primal rump.



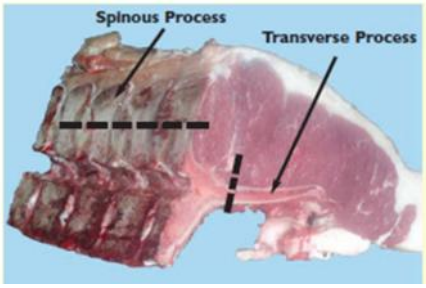
Rump with wing of sacrum partially separated by knife, leaving the ilium attached to the rump. Dotted line indicates portion of the wing that could be left attached to the primal cut.



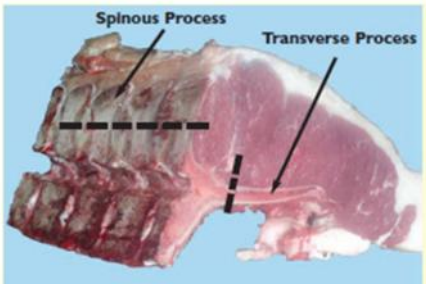
Sacrum removed as one piece including the median sacral crest and the wing of the sacrum.

Lumbar vertebrae:

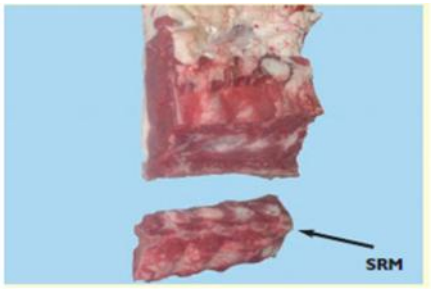
SIRLOIN



Bone-in sirloin.



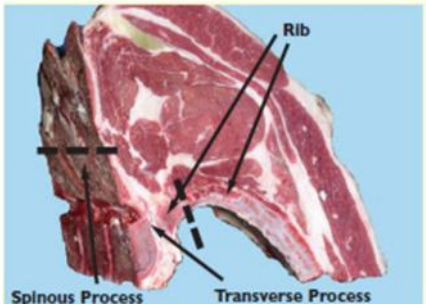
Partial separation of the vertebrae from the sirloin with the transverse and spinous processes remaining attached.



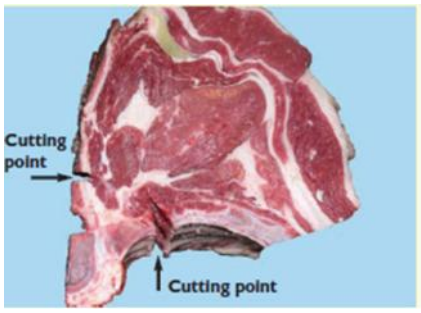
Vertebrae removed and left untrimmed.

Thoracic vertebrae:

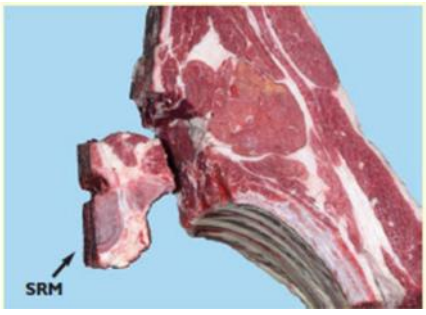
FORERIB (also applies to the chuck)



Bone-in forerib.



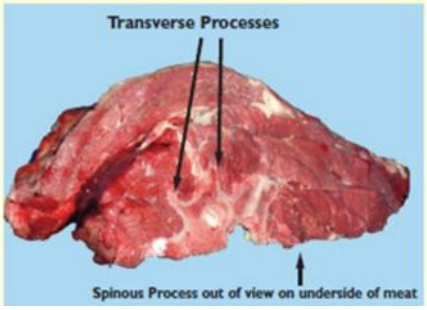
Partial separation of the vertebrae with the ribs and spinous processes remaining attached to the meat.



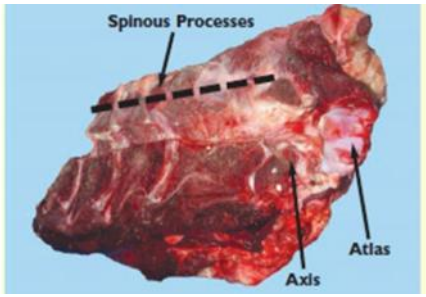
Vertebrae removed and left untrimmed.

Cervical vertebrae:

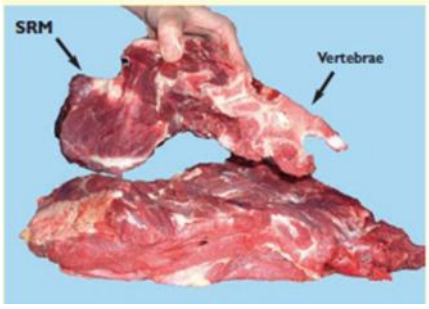
NECK



Posterior end of neck showing the vertebral structure (cut through at the 6th cervical vertebra).

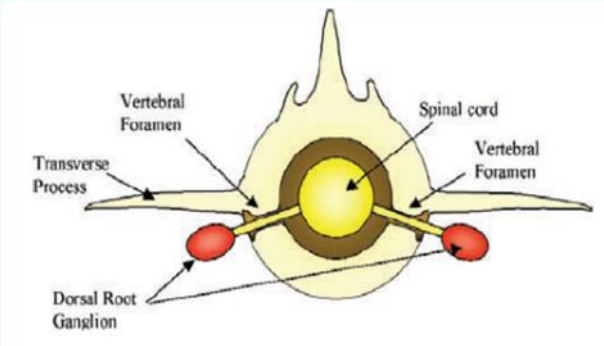


Anterior end of neck showing the first two vertebra (the atlas and axis).



Removal of the vertebrae left untrimmed. Although the spinous and transverse processes are not SRM they are removed with the vertebrae to avoid leaving dorsal root ganglia (DRG) attached in the meat.

Dorsal Root Ganglia



Examples of effective removal of Dorsal Root Ganglia









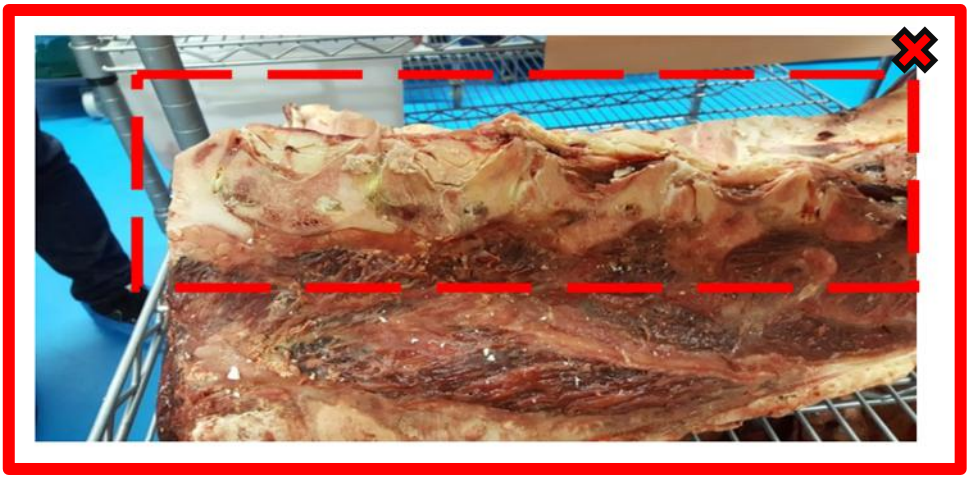
Examples of incorrect VC removal

In some instances, misuse of equipment and lack of training can lead to ineffective or incomplete removal of vertebral column. See examples below of cases where poor practices led to SRM (either vertebral column or DRG) being illegally dispatched to standalone cutting plants not authorised for the removal of VC on OTM cattle.



In this picture, a V shaped cut has been made around the vertebral canal with a circular saw but the whole vertebra has not been removed resulting in a high risk of leaving DRG.

Below is another example in which the cut through the transverse process was made very close to the vertebra with a high risk of leaving DRG.



The following pictures emphasise the importance of effective training in the use of mechanical equipment to remove vertebral column.

The proper use of circular saws to remove vertebral column can be effective if the cut lines are in the correct place, however poor practices eg cutting along the wrong lines, will increase the risk of leaving part of the vertebra or DRG behind.

Examples of incomplete removal





Annex 4: Aging sheep and goats by dentition

Reference: www.infovets.com

C15

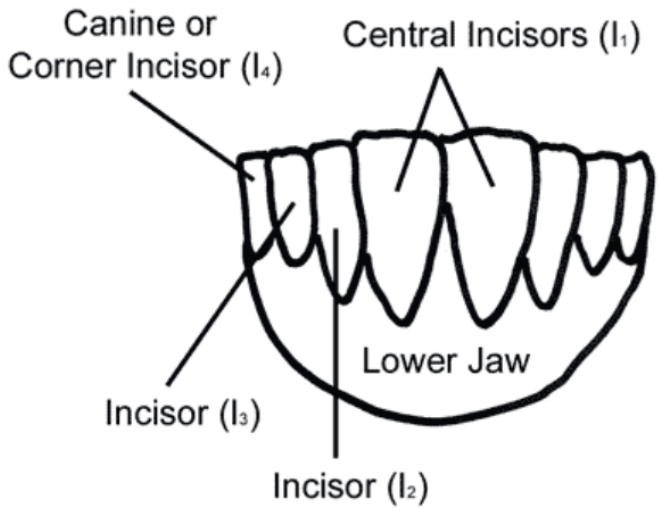
Aging Sheep and Goats By Their Teeth

Introduction: Both sheep and goats have a total of 32 teeth. They do not have any upper incisors. The dental formula for sheep and goats is as follows:

0/4 incisors, 3/3 pre-molars, 3/3 molars. The first number in each formula represents how many sets of teeth are on the upper jaw; the second number indicates how many sets of teeth are on the lower jaw. For example, the 0/4 means that sheep/goats have no upper incisors, but have 4 sets of lower incisors (8 lower incisors in all). Most of the time the dental formula looks like this 2 (0/4 incisors, 3/3 pre-molars, 3/3 molars) = 32.

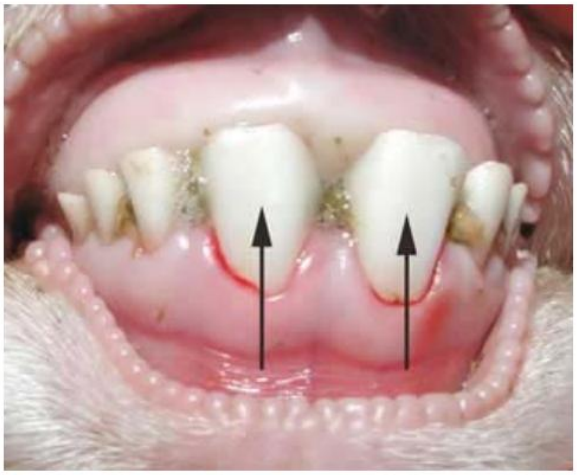
All baby sheep and goats are born with deciduous teeth (teeth that will fall out). Deciduous teeth are much smaller than permanent teeth. The deciduous teeth are replaced with permanent teeth as the animal ages. The following table outlines when the permanent teeth will appear or erupt:

Permanent Tooth Eruption in Sheep and Goats	
Permanent tooth	**Age at Eruption**
Incisor (I_1)	1-1.5 years
Incisor (I_2)	1.5-2 years
Incisor (I_3)	2.5-3 years
Incisor (I_4)	3.5-4 years
Premolars	1.5-2 years
Molar (M_1)	3 months
Molar (M_2)	9-12 months
Molar (M_3)	1.5-2 years

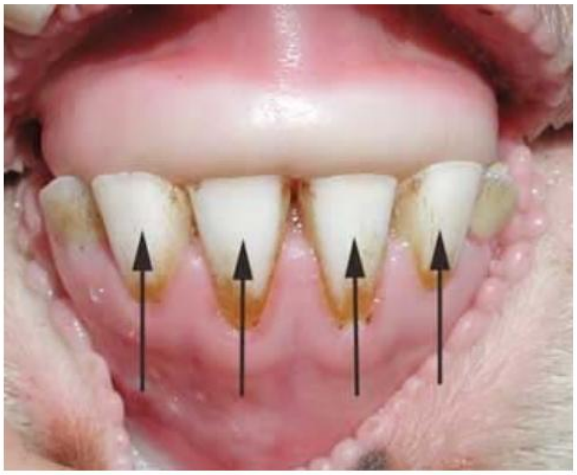


This is a diagram of the incisors associated with the lower jaw. These incisors are the teeth that can easily be used to age an animal. In this diagram, all the incisors are permanent teeth.

Common Dentition of Sheep:



Dentition of a yearling sheep. Two incisors are permanent (black arrows).



Dentition of a 2 year old sheep. Four incisors are permanent (black arrows).

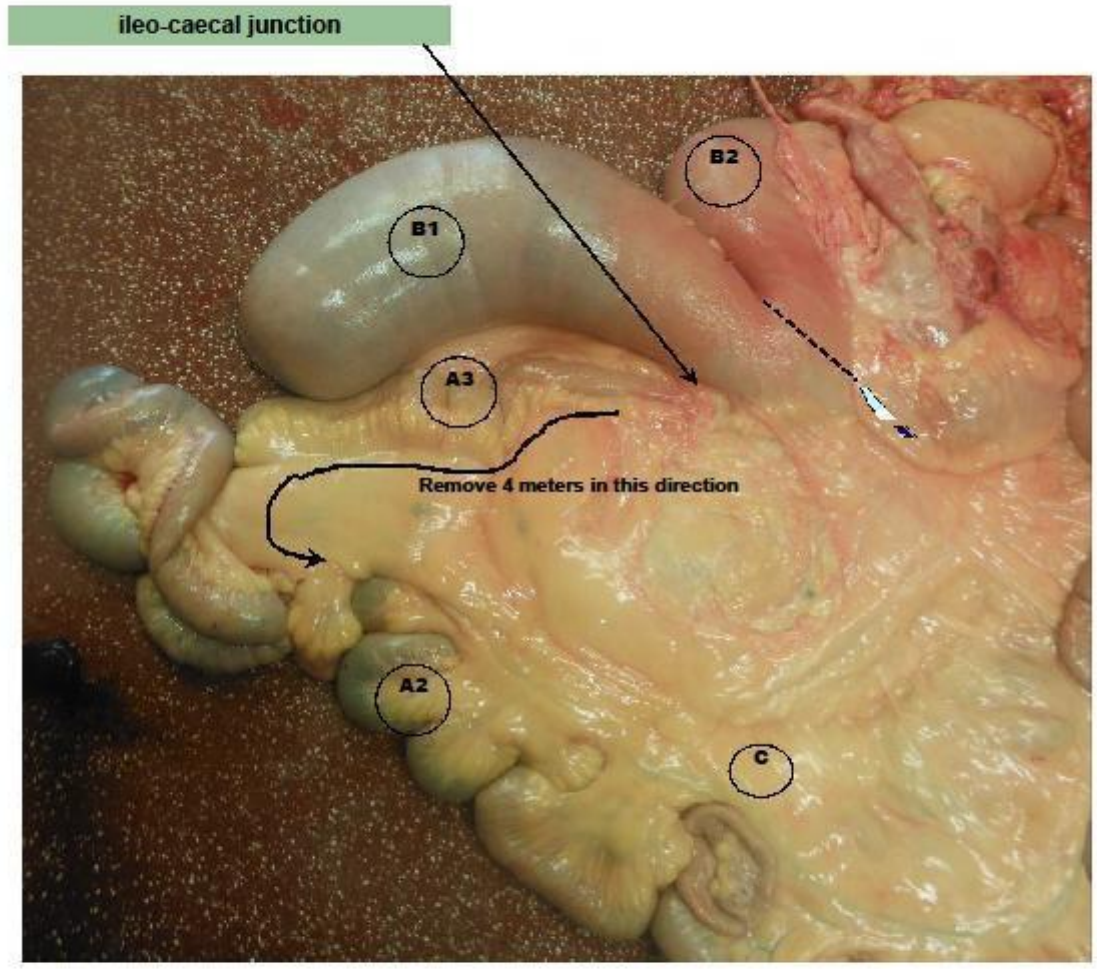


Dentition of a 4 year old sheep or "full mouth." All incisors are permanent.

Annex 5: Removal of SRM from controlled or undetermined risk bovine intestines

Removal of the SRM from bovine intestines

Food Standards Agency
food.gov.uk



The caecum (**B1**) is cylindrical, 50-70cm long and slightly curved with a blind end.

The **last four meters of the small intestine** from the ileo-caecal junction, towards the small intestine, should be removed. This will include removal of ileum (A3) and part of jejunum (A2).

The **caecum (B1)** needs to be removed.

Mesentery (C) including mesenteric fat—needs to be removed. Most likely it will require the small intestine and large intestine to be run off in order to remove **mesentery (including mesenteric fat).**