



Better Training for Safer Food *Initiative*

Regulation (EC) N°999/2001: a general overview and EU provisions on SRM removal

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Regulation (EC) N°999/2001: a general overview



Regulation (EC) No 999/2001

- In reaction to the BSE epidemic in the EU, **Regulation (EC) No 999/2001** of the European Parliament and of the Council of 22 May 2001 laying down rules for the prevention, control and eradication of certain transmissible spongiform encephalopathies (TSEs) was adopted (this is known as "**the TSE Regulation**")
- TSE Regulation represents **a uniform legal basis for the control, prevention and eradication of TSEs and BSE.**
- It has been amended **53 times since** its introduction.

Preventive and control measures regarding BSE in EU

- ***TSE Monitoring***
 - Testing of sick and suspect animals (passive surveillance)
 - Testing of cattle over 30/24 months (active surveillance)
- ***Feed ban***
- ***Removal of SRM***
- ***Rules for intra-community trade***
- ***Import restrictions***
- ***Eradication measures after confirmation of BSE/TSE.***
- Identification & Registration system for bovine animals



Regulation (EC) No 999/2001 – latest amendments

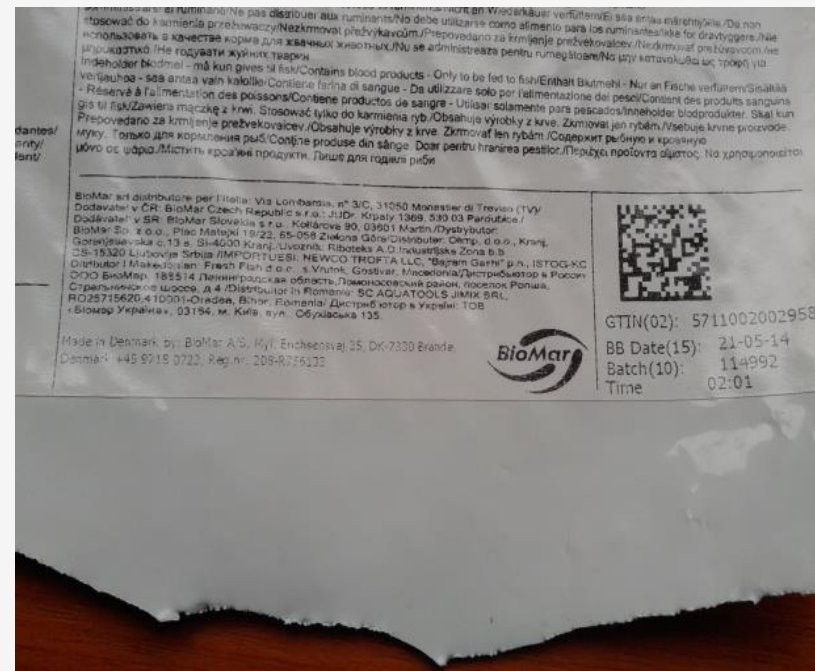
- ► **M48**
 - ***Commission Regulation (EU) No 56/2013 of 16 January 2013***
- ► **M49**
 - *Council Regulation (EU) No 517/2013 of 13 May 2013*
- ► **M50**
 - ***Commission Regulation (EU) No 630/2013 of 28 June 2013***
- ► **M51**
 - **Commission Regulation (EU) No 1148/2014 of 28 October 2014**

Regulation (EC) No 999/2001 – latest amendments

- ► **M52**
 - ***Commission Regulation (EU) No 2015/728 of 6th May 2015***
- ► **M53**
 - ***Commission Regulation (EU) No 2015/1162 of 15 July 2015***

Commission Regulation (EU) No 56/2013 of 16 January 2013

- **Annexes I and IV to Regulation (EC) No 999/2001 were amended:**
 - Annex I: cross references to the definitions in some other legal acts were added;
 - Annex IV: PAP from non-ruminant animals and feedingstuffs containing such PAP were reauthorised for feeding aquaculture animals – **see presentation on feed ban**





Commission Regulation (EU) No 630/2013 of 28 June 2013

- **Annexes I, III, VII, VIII, IX and X to Regulation (EC) No 999/2001 were amended:**
 - Annex I: some new definitions: index case, BSE case, classical BSE case, atypical BSE case...
 - Annex III: cross-reference for emergency slaughter to Regulation (EU) No 853/2004 and for "sick ante mortem" to Regulation (EU) No 854/2004;
 - Annex VII: several new options for eradication of TSE in small ruminants were given – see presentation on eradication of TSEs



Commission Regulation (EU) No 630/2013 of 28 June 2013

- **Annex VIII - main amendments:**
 - the **rules** relating to intra-Union trade in ovine and caprine animals and their semen and embryos **were aligned with the OIE standards,**
 - Member States may establish **an official scheme for the recognition of holdings** with a negligible risk of classical scrapie and holdings with a controlled risk of classical scrapie
 - Member States may maintain a **list of holdings** of ovine and caprine animals with a negligible risk and holdings with a controlled risk of classical scrapie.



Commission Regulation (EU) No 630/2013 of 28 June 2013

Annex VIII – main amendments: :

- the **negligible risk status for classical scrapie of the Member State** may be approved
- **national scrapie control programmes** of Member States may be approved



Commission Regulation (EU) No 630/2013 of 28 June 2013

- **Annex VIII - main amendments:**
 - **New conditions for Intra-Union trade in ovine and caprine animals and semen and embryos.**
 - **ovine and caprine animals for breeding** intended for Member States other than those with a negligible risk of classical scrapie or with an approved national scrapie control programme
 - **ovine and caprine animals for all intended use except immediate slaughter** intended for the Member States with a negligible risk of classical scrapie or with an approved national scrapie control programme
 - **semen and embryos** of ovine and caprine animals

Conditions for Intra-Union trade in ovine and caprine animals



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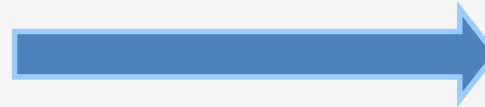
- **Ovine and caprine animals from a Member State with a negligible risk status for classical scrapie**

- **Ovine animals of the ARR/ARR prion protein genotype and do not come from a holding under restrictions**

- **Ovine or caprine animals from holdings having status of a negligible risk of classical scrapie**

- **Ovine and caprine animals come from a holdings which have complied with the requirements laid down in points 1.2.(a) to (i) of Section A of Chapter A of Annex VIII to Regulation (EC) No 999/2001 for a period of at least the last seven years – possible before January 2015**

Animals for breeding



Member States other than those with the negligible risk status or ASCP (all MS except AT, DK, FI, SV)

Animals for all intended uses other than immediate slaughter



Member States with the negligible risk status or ASCP (AT, DK, FI, SV)

Conditions for Intra-Union trade in ovine and caprine animals



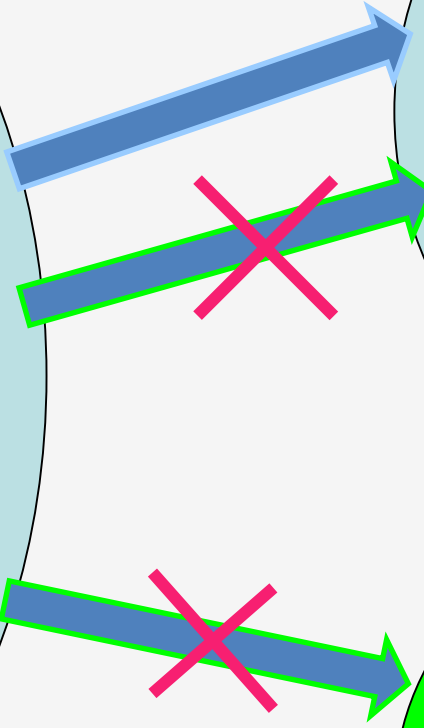
Ovine or caprine animals from holdings having status of a controlled risk of classical scrapie

- Ovine and caprine animals come from a holdings which have complied with the requirements laid down in points 1.3.(a) to (i) of Section A of Chapter A of Annex VIII to Regulation (EC) No 999/2001 for a period of at least the three years – possible before January 2015

Member States other than those with the negligible risk status or ASCP (all MS except AT, DK, FI, SV)

Be careful with introduction of animals on the holdings having status of a negligible risk

Member States with the negligible risk status or ASCP (AT, DK, FI, SV)





Commission Regulation (EU) No 630/2013 of 28 June 2013

- **Annex IX – main amendments:**
 - **import conditions for collagen** to be used for food or feed were aligned with those laid down for gelatine intended for the same usage.
 - **rules for the importation in the Union of ovine and caprine animals, and ovine and caprine semen and embryos were updated** to reflect the new conditions for intra-Union trade laid down in Annex VIII to Regulation (EC) No 999/2001.



Commission Regulation (EU) No 630/2013 of 28 June 2013

Annex X - amendments:

- **material from all future cases of BSE confirmed in the Union shall be submitted to discriminatory tests** that allow the precise identification of the agent, namely classical BSE, L-type atypical BSE and H-type atypical BSE.
- **two rapid test kits** for the monitoring of BSE in bovine animals were **deleted from the list** of rapid tests



Commission Regulation (EU) No 1148/2014 of 28 October 2014

Main amendments:

- **Annex II** - the table providing the points targets for a country or region has been significantly amended to better meet the needs of countries with a small or very small cattle population
- **Annex VIII:** Austria listed as a Member State with a negligible risk of classical scrapie and simultaneously deleted from the list of Member States with an approved national control programme for classical scrapie,
- **Annex VIII and IX:** allow introduction of ovine and caprine embryos /ova carrying at least one ARR allele
- **Annex X:** completely replaced



Commission Regulation (EU) No 2015/728 of 6 May 2015

Annex V - amendments:

- **List of SRM amended, point 1 (a) (iii) now reads the tonsils, the last 4 metres of the small intestine, the caecum and the mesentery of animals of all ages.**

Commission Regulation (EU) 2015/1162 of 15 July 2015

Annex V - amendments

- **SRM in negligible BSE risk status countries**
Tissues listed in point 1 (a)(i) and 1(b) which are derived from animals whose origin is in a MS with a BSE negligible risk, shall be considered as SRM.



Regulation (EC) N°999/2001: *removal of SRM*

SRM removal: "Why?"

- ❑ It is the most important human health protective measure against BSE.
- ❑ **SRM removal eliminates 99% of BSE-infective tissues** from the animal carcass.
- ❑ Excluding SRM from the food and feed chain considerably **reduces the exposure of the consumers to the possible BSE agent present.**



Legal Framework Link

EU legislation:

- **Article 8 and Annex V to Regulation (EC) N° 999/2001**
- *Regulation 1069/2009/EC, as amended,*
- *Regulation 142/2011/EC, as amended*

National legislation

Some general prohibitions in regard to SRM - Article 8 and Annex V to Regulation (EC) No 999/2001

- **Laceration of CNT after stunning** (by rod-shaped instrument or gas) prohibited in bovine, ovine and caprine animals
- Use of bones or bone-in cuts of bovine, ovine and caprine animals for the **production of MSM is prohibited**
- General **ban on import of SRM** to the EU
- Exports to countries outside of the EU **of heads and of fresh meat** of bovine, ovine or caprine animals **containing SRM is prohibited.**

Definition of SRM – Article 3(g) and Annex V of TSE Regulation

SRM - BOVINE ANIMALS	Age of animals
<p><i>the tonsils, the last four meters of the small intestine, the caecum and the mesentery of animals of all ages. (The tonsils, the intestines from the duodenum to the rectum and the mesentery)</i></p>	<p><i>Bovine animals of all ages</i></p>
<p><i>The skull excluding the mandible and including the brain and eyes, and the spinal cord</i></p>	<p><i>Bovine animals aged over 12 months</i></p>
<p><i>The vertebral column <u>excluding</u> 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, <u>but including</u> the dorsal root ganglia</i></p>	<p><i>Bovine animals aged over 30 months</i></p>

Definition of SRM – Article 3(g) and Annex V of TSE Regulation

SRM - OVINE AND CAPRINE ANIMALS	Age of animals
<i>The skull including the brain and eyes, the tonsils and the spinal cord</i>	<i>Ovine and caprine animals aged over 12 months or which have a permanent incisor erupted through the gum</i>
<i>The spleen and the ileum</i>	<i>Ovine and caprine animals of all ages</i>

- Derogation – EU MS with negligible risk for BSE still have **limited** SRM list.

SRM removal: „Where it shall be done?“

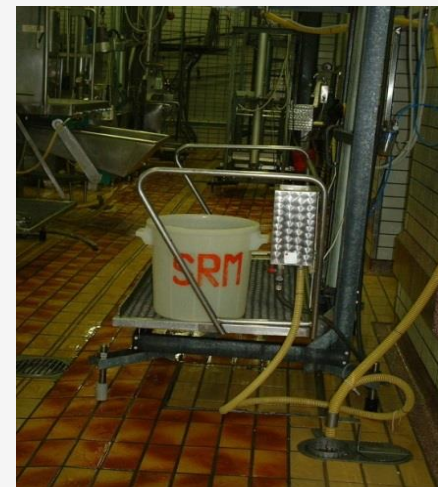
- **In slaughterhouses and other slaughter places - all SRM**
- **In cutting plants, in case of bovine vertebral columns**
- **In cutting plants - in case of ovine and caprine spinal cords, and in case of harvesting of head meat of bovines (CAs specific authorisation needed)**
- **In butcher shops – removal of the vertebral column (CAs specific authorisation needed)**

SRM removal: „Where it shall be done?“

- **On-farm slaughter for own household consumption (sheep and goats, bovine ??) – all SRM**
- **In plants carrying out intermediate activities in accordance with ABP Regulation (EC) No 1069/2009**

Collection, marking and disposal of SRM

- ✓ Establishments carrying out SRM removal shall include segregated areas intended for SRM collection.
- ✓ “SRM” or “Category 1” - marked containers shall be positioned in every area within the establishment, where SRM removal takes place.
- ✓ These containers shall be positioned in an appropriate distance from other containers intended for storage of edible parts of animals or category 3 ABP, so as to prevent cross-contamination.



Collection, marking and disposal of SRM

- ✓ **SRM shall be stained with a dye or, as appropriate, otherwise marked, immediately on removal (usage of food colorants: **Briliant blue – E 133** or **Patent blue V - E 131**) - quantity of purchased dye shall fits with amount of SRM stained?**
- ✓ **SRM shall be disposed of as category 1 material in accordance with ABP Regulation (Regulation 1069/2009/EC).**

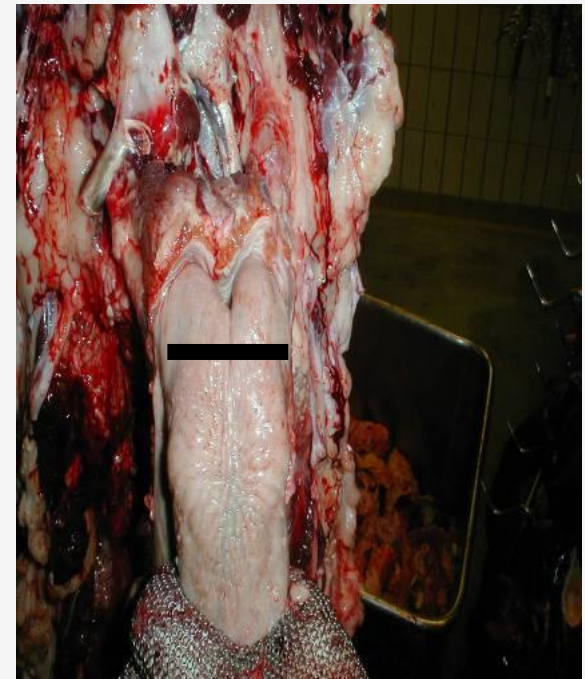
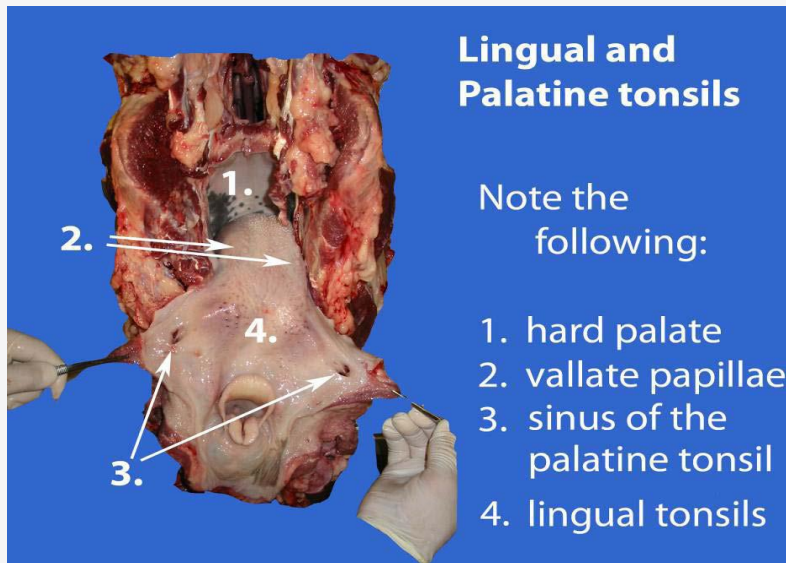
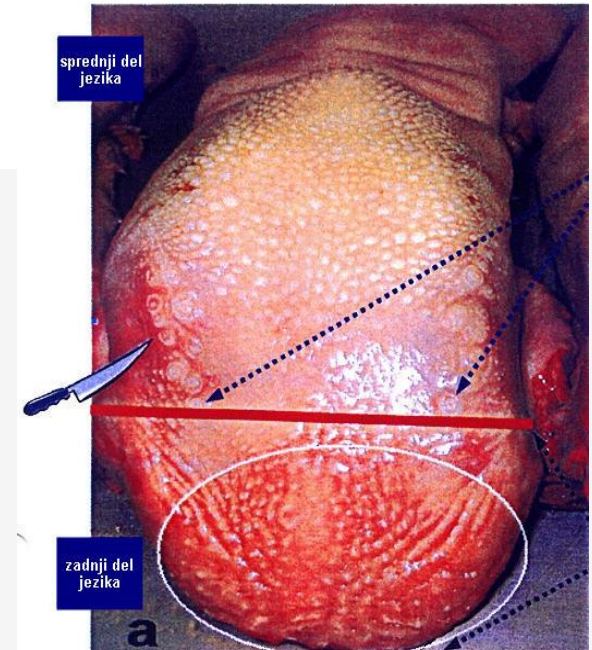


Skull - after the removal of the mandible (cattle over 12 months)



Harvesting of bovine tongue

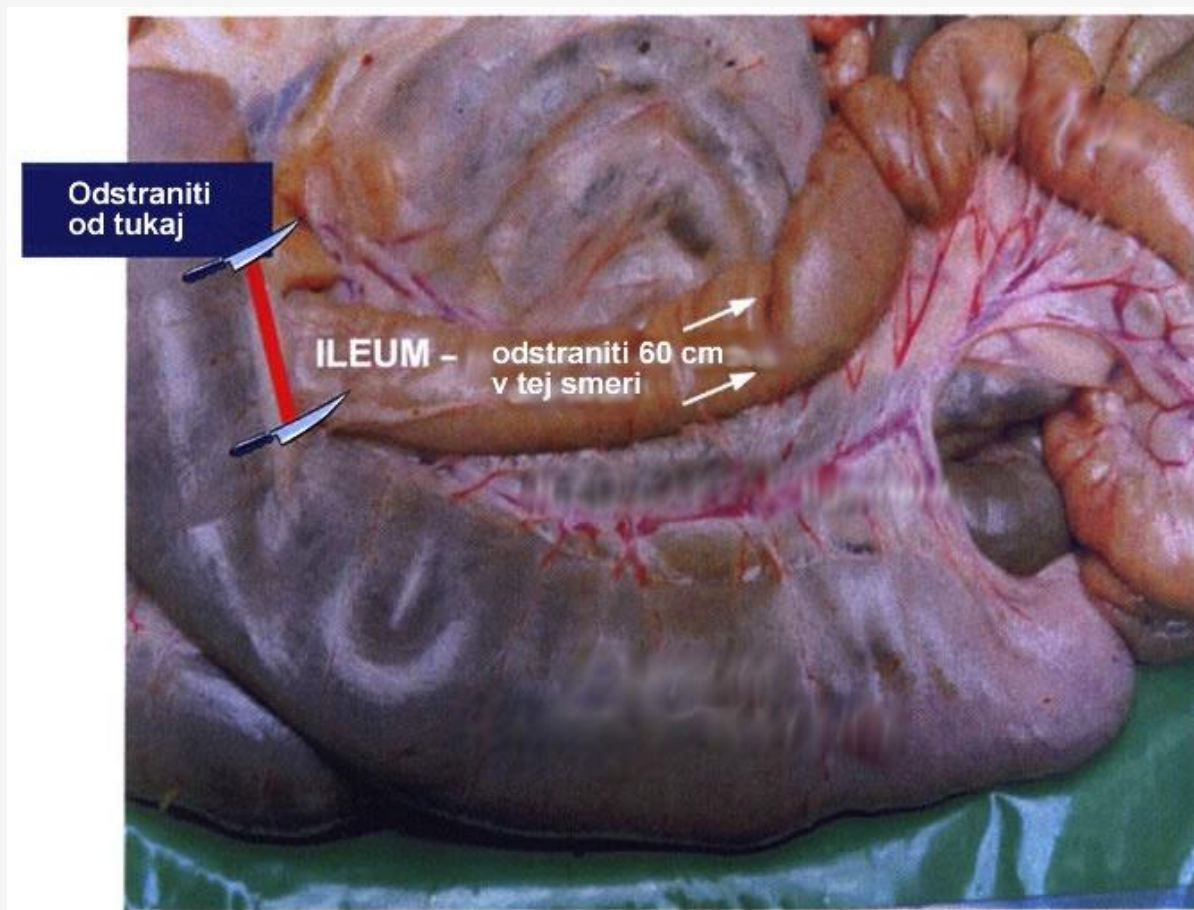
Tongues of bovine animals of all ages intended for human or animal consumption shall be harvested in the slaughterhouse by a transverse cut - rostral to the lingual process of the basihyoid bone!



Bovine spinal cord removal



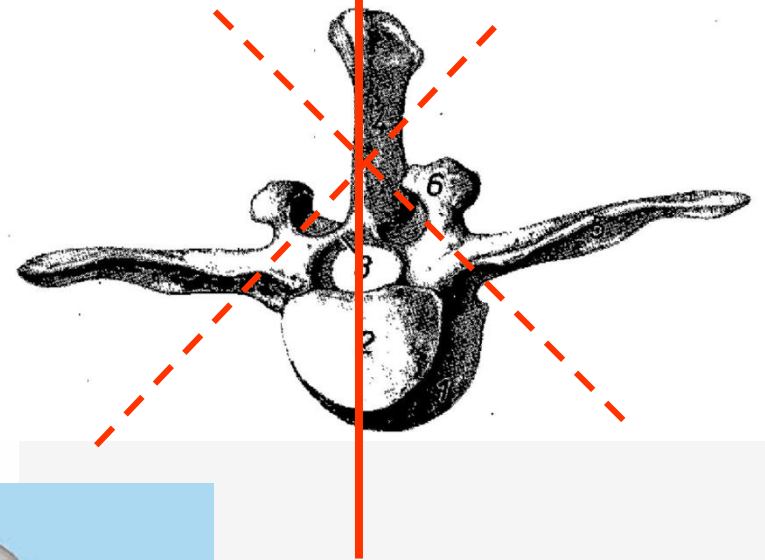
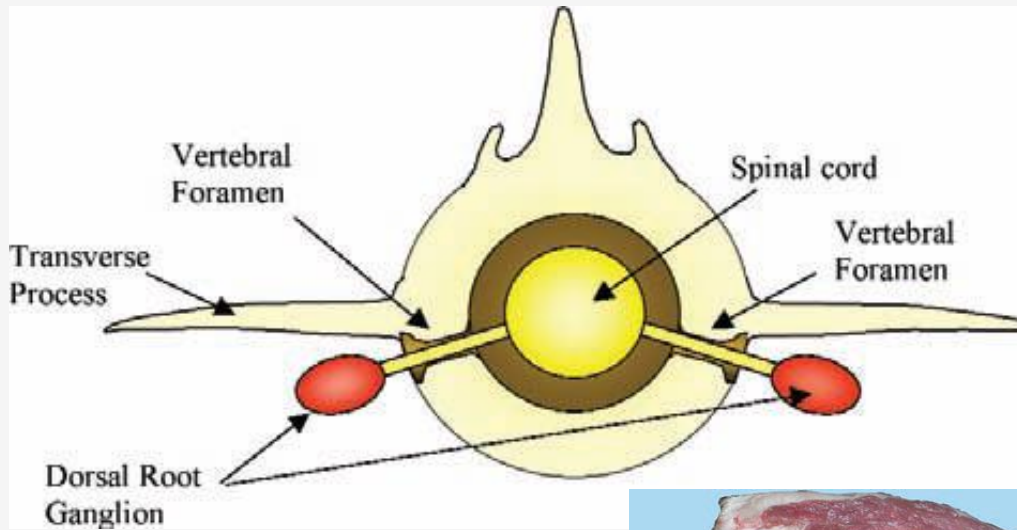
Removal of ileum in sheep and goats



Vertebral column removal



Removal of dorsal Root Ganglia (DRG)



Labelling and traceability

Identification of carcasses as referred to in Regulation (EC) No 1760/2000, as amended + blue stripe (removal of the vertebral column is not required)



Labelling and traceability requirements with regard to vertebral column removal

- Identification of carcasses or parts of carcasses of bovine animals aged less than 30 months (**removal of the vertebral column is not required**) by a **blue stripe** on the label as referred to in Regulation (EC) No 1760/2000
- Commercial document shall indicate specific information on the number of bovine carcasses or wholesale cuts of carcasses, from which removal of the vertebral column **is required** as well as on the number of bovine carcasses or wholesale cuts of carcasses, from which removal of the vertebral column **is not required**,
- **Butcher shops** shall keep the the above mentioned commercial documents for a period of at **least 1 year**

Preventing cross-contamination at harvesting of bovine head meat

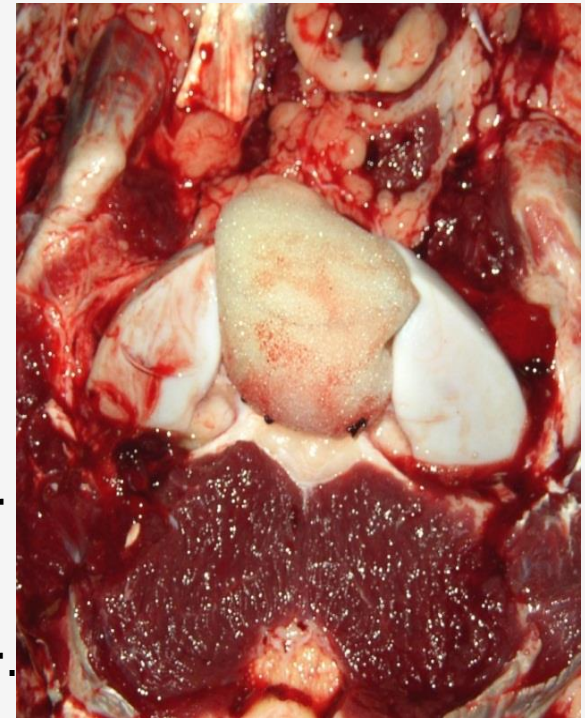
Head meat of bovine animals **above 12 months** of age shall be harvested **at slaughterhouses (or in authorized cutting plants)**, in accordance with a **control system**, recognized by the competent authority,

The **system shall include:**

✓harvesting shall take place in a dedicated area, physically separated from the other parts of the slaughter line;

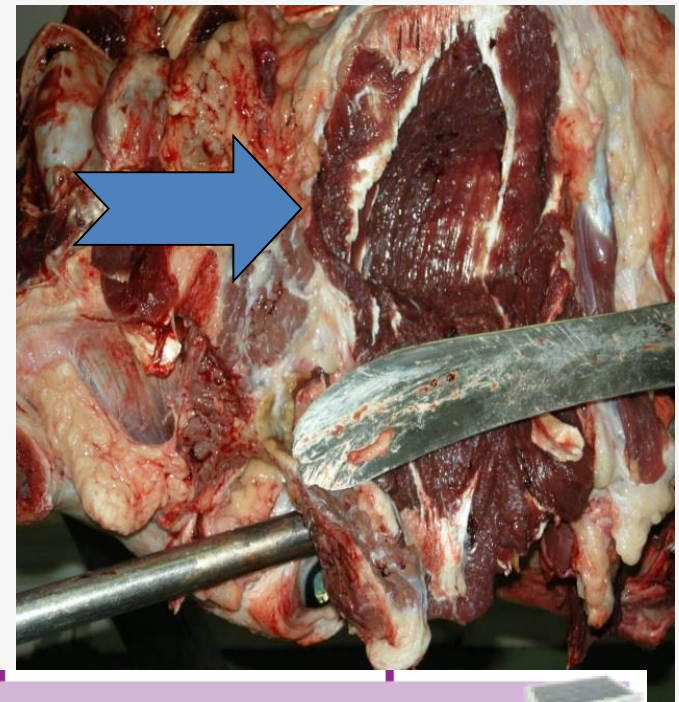
✓where the **heads are removed from the conveyor or hooks before harvesting** the head meat, **the frontal shot hole and foramen magnum shall be sealed with an impermeable and durable stopper.**

Where the brainstem is sampled for laboratory testing for BSE, the foramen magnum shall be sealed immediately after that sampling;



Preventing cross-contamination at harvesting of bovine head meat

- ✓ head meat **shall not be harvested** from heads which have not been properly sealed
- ✓ **specific working instructions** shall be in place to prevent contamination of the head meat during the harvesting, in particular in the case when the seal (stopper) is lost or the eyes get damaged during the activity
- ✓ **sampling plan** using an appropriate laboratory test to detect central nervous system tissue shall be in place to verify that the measures to reduce contamination are properly implemented.



Risk Material	ELISA Microtiter Plates		
RIDASCREEN® Risk Material	Enzyme immunoassay for quantitative analysis of risk material (CNS) in processed meat and meat products Detection limit: < 0.2 % for CNS tissue	96 determinations Incubation time: 1 hr	R6701
RIDASCREEN® Risk Material 10/5	Enzyme immunoassay for qualitative analysis of risk material (CNS) in raw meat, meat products and on contaminated surfaces Detection limit: < 0.1 % for CNS tissue	96 determinations Incubation time: 15 min	R6703



Preventing cross-contamination at harvesting of bovine head meat

- ✓ if the harvesting is performed in the slaughterhouse **without removing** the bovine head **from the conveyor or hooks**, no sealing of heads or CN tissue sampling plan is required.

Slaughtering procedures - measures concerning laceration of tissues

- ✗ **laceration of central nervous tissue** by means of an **elongated rod-shaped instrument** introduced into the cranial cavity **after stunning** or by means of **gas injection** into the cranial cavity in **connection with stunning are prohibited in bovine, ovine or caprine animals** whose **meat is intended for human or animal consumption**.
- ✓ these provisions are applicable to **all Member States**, regardless of their BSE risk status (until all MS are classified as countries with negligible risk to BSE).



Measures concerning mechanically separated meat (MSM)



- ✓ **Definition:** mechanically separated meat or 'MSM' is the product obtained by removing meat from flesh-bearing bones after boning, using mechanical means resulting in the loss or modification of the muscle fibre structure.
- ✓ **Mechanically separated meat derived from ruminants may contain certain SRM** (parts of the bones (vertebral column) and the periosteum (bone skin), bits of the spinal cord and dorsal root ganglia).
- ✗ So therefore **the use of bones or bone-in cuts of bovine, ovine and caprine animals for the production of mechanically separated meat (MSM) is prohibited in the EU.**

Traceability is very important when applying BSE preventive measures in slaughterhouse...





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Prevention of environmental contamination with SRM - wastewater treatment in slaughterhouses and other food establishments – ABP legislation requirement

- ✓ Slaughterhouses and other premises where SRM is removed shall have **pre-treatment process** for the retention and collection of animal material
- ✓ drain traps or screens with apertures with a filter pore or a mesh size of no more than 6 mm or equivalent systems that ensure that the **solid particles in the wastewater** passing through them are **no more than 6 mm**.





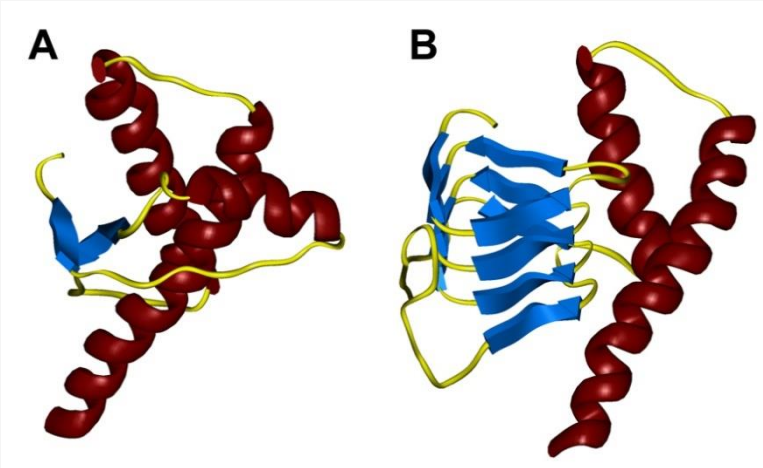
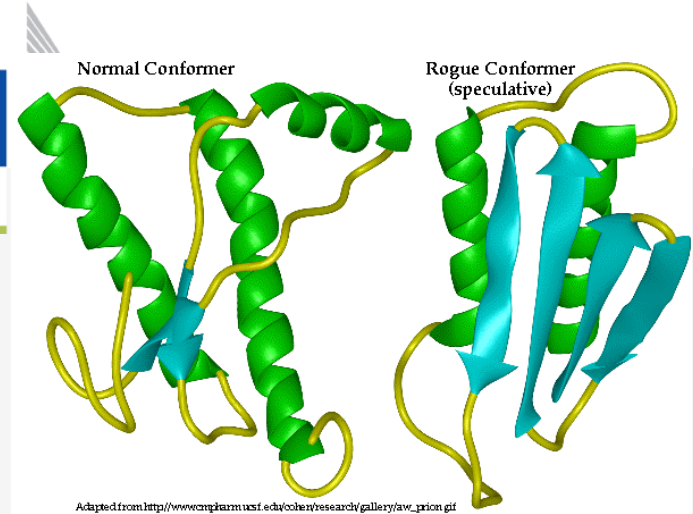
Prevention of environmental contamination with SRM - wastewater treatment in slaughterhouses and other food establishments – ABP legislation requirement

- ✓ Grinding, maceration or any other processing or application of pressure in order to facilitate the passage of solid animal material through the pre-treatment process **is prohibited**.
- ✓ All **animal material retained in the pre-treatment process** in premises shall be disposed of as **Category 1** in accordance with ABP Regulation.

Trade and export of meat containing SRM

- **dispatch of bovine heads to another Member State** is allowed only after that Member State has agreed to receive the material and has approved the conditions of dispatch and transport.
- **carcasses, half carcasses or half carcasses cut into no more than three wholesale cuts, and quarters** containing no specified risk material *other than the vertebral column, including dorsal root ganglia*, may be dispatched from one Member State to another without the prior agreement.
- **exports to countries outside of the EU of heads and of fresh meat of bovine, ovine or caprine animals containing SRM is prohibited.**

Thank you!



???



Any questions?



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