



EUROPEAN COMMISSION
HEALTH & CONSUMERS DIRECTORATE-GENERAL
Unit 04 - Veterinary Control Programmes

SANCO/10393/2009

*Programmes for the eradication, control and monitoring of certain
animal diseases and zoonoses*

Monitoring and eradication programme of TSE, BSE and scrapie

Approved* for 2010 by Commission Decision 2009/883/EC

Slovenia

* in accordance with Council Decision 2009/470/EC

SLOVENIA

TSE Monitoring and Eradication Programme

2010

Veterinary Administration of the Republic of Slovenia

1. Identification of the programme

Member State: **SLOVENIA**

Disease(s)¹: **TRANSMISSIBLE SPONGIFORM ENCEPHALOPATHIES (TSEs)**

Year of implementation: **2010**

Reference of this document: 34403-10/2009

Contact (name, phone, fax, e-mail): Ivan Ambrožič; Phone: +386 1 300 13 10,
Fax: + 386 1 300 13 56, E-mail: ivan.ambrozic@gov.si

Date sent to the Commission: 24.4.2009

2. Description of the programme

This is the programme for monitoring, control and eradication of BSE/TSE in 2009. The tests for BSE/TSE will continue in the Republic of Slovenia under the following programme:

A. Bovine animals (BSE):

- examination of **all bovine** animals (all ages) showing clinical signs of BSE - BSE suspects,
- examination of **all bovine** animals killed under eradication measures in accordance with point 2 (a) of Annex VII of Regulation 999/2001 EC
- examination of **all emergency slaughtered bovine** animals, **all sick animals** (clinical signs at ante mortem) intended for slaughter on the basis of a veterinary referral form, **aged more than 24 months**,
- examination of all dead animals – **fallen stock aged more than 24 months**
- examination of **all healthy slaughtered bovine animals aged more than 48 months**;

B. Ovine and caprine animals (TSE):

- examination of **all ovine and caprine animals** aged more than 18 months, showing clinical signs of wasting, emergency slaughtered animals, sick animals intended for slaughter on the basis of a veterinary referral form,
- examination of **all dead ovine and caprine animals** aged more than 18 months,
- monitoring of infected flocks (**slaughtered and non slaughtered animals**) – minimum sample size in accordance with Annex III and Annex VII of TSE Regulation;

C. Ovine and caprine animals (genotyping):

- genotyping of each positive TSE case in sheep,
- genotyping of randomly selected sheep from flocks in eradication,

¹ One document per disease is used unless all measures of the programme on the target population are used for the control and eradication of different diseases.

- genotyping under the requirements of eradication – genotyping and partial depopulation of infected flocks,
 - genotyping of breeding sheep under the framework of a breeding programme as established in Chapter B, Annex VII of TSE Regulation
 - genotyping of randomly selected sheep from flocks.
- D. Eradication of TSE: killing and complete destruction of animals under the requirements of Annex VII of the Regulation (EC) 999/.
- E. Discriminatory testing of all animals which are regarded as positive Scrapie cases

3. Description of the epidemiological situation of disease

BSE

In order to assess the situation, the Republic of Slovenia has been carrying out the BSE monitoring programme since 1996. Since the beginning of 2001, i.e. upon the introduction of the rapid post mortal test to diagnose BSE, eight BSE cases were confirmed in Slovenia. **Five cases were confirmed in fallen stock** within the monitoring and surveillance programme, two cases was confirmed in healthy slaughtered cow and the last case was found by slaughtering **sick animal** showing clinical signs at ante mortem examination. Positive cases and the number of animals tested from 2001 – 2008 are shown in Table 1. More information on positive cases is shown in Table 2.

Table 1: Number of bovine animals tested per year and positive cases

Year	Number of animals tested	Number of positive cases
2001	32,616	1
2002	64,496	1
2003	66,167	1
2004	45,666	2
2005	36,784	1
2006	32,667	1
2007	31,384	1
2008	31.114	0
TOTAL	340,894	8

Table 2: Positive BSE cases in Slovenia (until April 2007)

CASE	MONTH AND DATE OF BIRTH	RISK GROUP	RAPID TEST	CONFIRMATORY TEST	DATE OF CONFIRMATION
1	22.9.1996	FALLEN STOCK	PRIONICS CHECK -	HISTOPATHOLOGY IMMUNOHISTOCHEMISTRY	20.11.2001
2	5.10.1995	FALLEN STOCK	PRIONICS CHECK - W	HISTOPATHOLOGY IMMUNOHISTOCHEMISTRY	21.1.2002

3	12.7.1999	FALLEN STOCK	PRIONICS CHECK - W	PLATELIA TEST (ELISA) HISTOPATHOLOGY IMMUNOHISTOCHEMISTRY	17.3.2003
4	9.1.2000	FALLEN STOCK	Enfer, PRIONICS CHECK - W	HISTOPATHOLOGY IMMUNOHISTOCHEMISTRY	26.03.2004
5*	20.4.1998	FALLEN STOCK	Enfer, PRIONICS CHECK - W	HISTOPATHOLOGY IMMUNOHISTOCHEMISTRY	27.7.2004
6	9.6.2000	HEALTHY SLAUGHTERED	PRIONICS CHECK - WESTERN, PRIONICS LIA, PRIONICS STRIP POSITIVE	IMMUNOHISTOCHEMISTRY WESTERN BLOT	24.8.2005
7	23.1.2000	HEALTHY SLAUGHTERED	PRIONICS LIA	HISTOPATHOLOGY IMMUNOHISTOCHEMISTRY	6.11.2006
8	18.12.2000	CLINICAL SIGNS AT ANTE MORTEM	Enfer, PRIONICS CHECK - W	HISTOPATHOLOGY IMMUNOHISTOCHEMISTRY	3.4.2007

* Animals imported from Germany as pregnant heifers

TSE in small ruminants

Scrapie has been known internationally for over 200 years. It is present in most sheep and goat producing countries in the world. In common with other TSEs it has a long incubation period. Peak incidence of clinical signs is seen in 3 to 4 year old sheep. There is evidence that significant infection of the tissues of infected animals with the scrapie agent occurs months before clinical signs appear. The course of the clinical disease may be weeks or months. The signs of scrapie are variable and non-specific and can include itchiness (resulting in "scraping" against fences etc.), nervous signs (including lack of co-ordination, head pressing and teeth grinding) and change in temperament. Weight loss may be variable. The disease is non-febrile. At present diagnostic methods for pre-clinical cases are still under development. Tests currently proposed for the diagnosis of scrapie in live animals are impractical for large-scale screening and a definitive diagnosis can only be made on tissues after death.

Lambs can be infected by their infected dams around the time of birth with the placenta being a major source of the infectious agent. It is traditionally recognised that horizontal transmission may occur at this time also via the oral route.

The incubation period of scrapie is determined by the genes of the host animal. Some genetic types have a shorter incubation period from infection to when clinical signs of the disease become apparent than do others. It has been shown that the single autosomal gene which determines the length of the incubation period in mice is similar to, if not in fact the same as, the gene which codes for the prion protein. It has also been recognised that the genotype of the (normal) PrP gene in sheep is a major factor controlling the development of the clinical signs of scrapie. Variations in the coding areas of the PrP gene in sheep (at locations 136, 154 and 171) determine susceptibility (or "resistance") to the clinical signs of scrapie.

Sheep and goat censuses are conducted regularly. In 2007, 135,887 sheep and 34,593 goats were recorded in Slovenia.

Monitoring of sheep and goats: Each year, the Minister of Agriculture, Forestry and Food issues the **Decree on carrying out of systematic surveillance of animal diseases and vaccination of animals** for that particular year, including at least the tests prescribed in Annex III to the Regulation (EC) No 999/2001. The sampling and test costs are covered by the state.

TSE monitoring of ovine and caprine animals started in Slovenia in 2002, when we tested 384 sheep and 182 goats. In July 2004 we detected the first TSE case in a sheep, or the first scrapie case in Slovenia, in a farm with approximately 900 animals. Until the end of 2008 we have confirmed 168 ovine and 4 caprine scrapie cases, among them 7 primary cases and 165 secondary cases.

Table 4: TSE tests and number of primary and secondary cases in the period 2002–2005

Monitoring year	Number of tests (sheep)	Number of primary cases (sheep)	Number of secondary cases (sheep)	Number of tests (goats)	Number of primary cases (goats)	Number of secondary cases (goats)	Total of number of cases (sheep and goats)
2002	384	0		182	0		0
2003	567	0		182	0		0
2004	1067	1	11	261	0	0	12
2005	2188	4	97	590	0	4	105
2006	2040	1	41	386	0	0	42
2007	2047	1	11	429	0	0	12
2008	2004	0	1	488	0	0	1
Total	10297	7	161	2518	0	4	172

Suspect and positive TSE cases

All TSE suspect cases in sheep and goats must be reported immediately. Livestock owner must provide all necessary assistance to the authorities. All cases notified as suspect are subject to official veterinary supervision: TSE suspects and TSE positive animals shall not be placed on the market, and the farm shall be placed under temporary restrictions, by:

- restriction on animal movements from and to the farm;
- requiring dead animal carcasses to be collected in the collection centres approved according Regulation 1774/2002;
- banning the on-farm slaughter of animals intended for the household consumption;
- specifying the species and number of animals affected by the ban.

Once notified, the Regional Office of VARS shall immediately delegate an official veterinarian to conduct the enquiry and institute and supervise all the necessary measures. The regional authority (official veterinarian) must be in close contact with the Main Office of VARS.

The suspect animal shall be killed on the basis of an official requirement, and the tissue samples taken shall be subjected to laboratory diagnosis. If the suspicion is not confirmed by laboratory testing, the restrictions must be lifted immediately.

If a case of TSE in sheep and goats is confirmed by laboratory testing, the restrictions shall be maintained and the Main Office of VARS consulted regarding further action. As first measure all animals in the flock must be identified individually. Further investigations, such as genotyping in accordance with Annex III, Chapter A (II) (4) and (7.1) to the Regulation (EC) No 999/2001, must be carried out. An intensive epidemiological investigation must be carried out around the positive case. Parents, offspring and contact animals must be identified. Ova and embryos must be identified and destroyed in accordance with the Regulation (EC) No 999/2001. At present, the entire flock destruction is required in case of small flocks (up to 20 animals) and genotyping and partial depopulation is required in case of larger flocks. Any restocking of farms shall be carried out in accordance with the Regulation (EC) No 999/2001.

Eradication measures are currently carried out in seven holdings. Female goats and lambs which were not eligible for further breeding were euthanized and harmlessly disposed of. Female sheep, male sheep and lambs which were eligible for further breeding were genotyped and, on the basis of genotyping results, the clinically suspect animals, animals of a genotype including the VRQ allele but no ARR allele, and rams of non-complying genotypes (all except those with the ARR/ARR homozygote) were euthanized. Rams of the ARR/ARR genotype were introduced into the holding. Strict conditions regarding animal movement restrictions from and to the holding were instituted at the infected holding, in accordance with points 4 and 7 of Annex VII to the Regulation (EC) No 999/2001.

In two holdings, scrapie was confirmed in breeding rams that had been born in the holding where the second scrapie case in Slovenia was confirmed. As the male animals do not play an important role in Scrapie transmission, we do not carry out eradication measures according to Annex VII to the Regulation (EC) No 999/2001 in these holdings, as the eradication measures had already been carried out in the holdings of origin of the animals. Nevertheless, more strict controls are carried out in such holdings by checking the herds for clinical signs of disease and by compulsory TSE-tests of all dead animals aged more than 18 months.

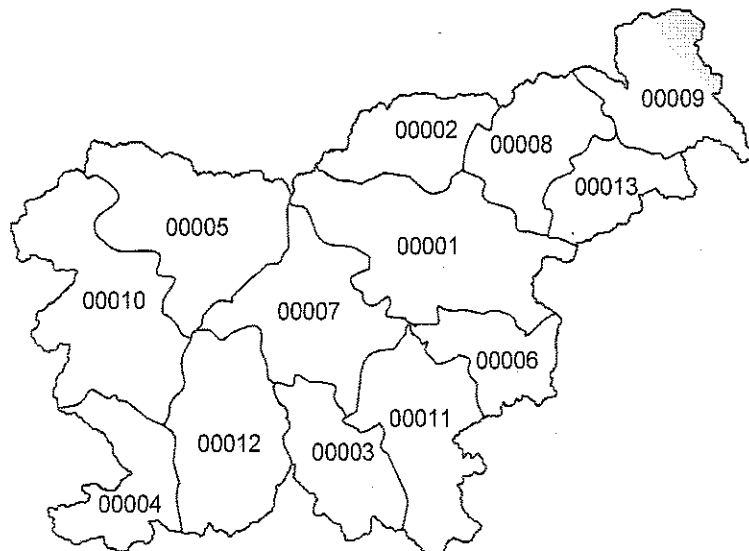
4. Measures included in the programme

4.1. Designation of the central authority charged with supervising and coordinating the departments responsible for implementing the programme:

Implementation of programme will be controlled by VARS through the Regional Offices of VARS that are competent for each relevant area.

4.2. Description and delimitation of the geographical and administrative areas in which the programme is to be applied:

Programme shall be implemented in the entire territory of the Republic of Slovenia, i.e. an area of 20,000 square kilometres, which is divided into 10 Regional Offices for the needs of operations of veterinary services. 3 VARS Regional Offices include branch offices. The Ljubljana Regional Office (RO) has a branch office (BO) in Kočevje, the Maribor RO has a branch office in Dravograd, and the Novo mesto RO has a branch office in Brežice.



1. RO Celje
2. BO Dravograd
3. BO Kočevje
4. RO Koper
5. RO Kranj
6. BO Brežice
7. RO Ljubljana
8. RO Maribor
9. RO Murska Sobota
10. RO Nova Gorica
11. RO Novo Mesto
12. RO Postojna
13. RO Ptuj

4.3. System in place for the registration of holdings:

It is laid down in the Veterinary Compliance Criteria Act, in Article 7 (1), that the subject of veterinary controls shall be animals, including animals in establishments

under this Act, at fairs, markets, shops and other sales and assembly points, exhibitions, sports events, enclosures for wild animals, herding and other public places where animals are deliberately assembled, and holdings, fairs, collection centres, assembly centres, pet animal shops, at transporters, dealers and in facilities, including installations and equipment intended for rearing and transporting animals, and in Article 7 (5), that detailed conditions and the procedure of entry in the records, approval and registration are laid down by Community rules, or prescribed by the minister, unless specifically provided otherwise by Community rules.

The KMG-MID is an identification number of a holding, defining its location. It is granted to each holding upon its entry in the register of agricultural holdings.

4.4. System in place for the identification of animals:

1. THE SYSTEM OF IDENTIFICATION AND REGISTRATION OF BOVINE ANIMALS

The system of identification and registration of bovine animals in Slovenia was launched in January 2001. The organizational infrastructure was defined, information infrastructure was set up, persons involved were appropriately trained, and funding was defined.

A list of animal owners and holdings was set up on the basis of the general agriculture census (SORS, June 2000), and a list of premium applicants in 2000. Each holding is assigned a unique identification number and linked to the Register of Spatial Units, which includes geographical coordinates (X, Y). Each animal owner is linked to either the Central Population Register (natural person) or the Central Register of Legal Persons (legal person).

The Central Register of Bovine Animals (CRBA) is set up as a single central database, managed at the Ministry of Agriculture, Forestry and Food. Access to the database is either interactive – via the web-based user interface and the public Internet connections, or in batch – via the XML exchange data format and the public Internet connections. The list of qualified users is stored in the database along with information on the access rights. The database itself is interlinked with several other databases in the public sector.

Animals must be tagged with double plastic yellow eartags before they are 20 days old. Eartags and replacement eartags are ordered via the central identification and registration software. All orders are controlled.

Each animal owner shall maintain an on-farm register and enter all events in seven days. The register is either in paper form (mostly using the pre-printed register provided by the MAFF) or in computerized form. Animal owner registers events (newborn animals, animals from EU Member States or imported from third countries, on-movements, off-movements), either by completing a suitable form and submitting it to the local veterinary station or an agricultural centre, or by entering the data directly into the central database.

The bovine passport is issued centrally and delivered to animal owner upon the first registration and must accompany the animal in all movements, to slaughterhouse, post-mortem facility, to a border inspection post; bovine passports of dead or exported

animals shall be returned to the identification and registration service and entered into the database. Animals from the other EU Member States shall get a Slovenian passport unless they are intended for the immediate slaughter.

2. THE SYSTEM OF IDENTIFICATION AND REGISTRATION OF OVINE/CAPRINE ANIMALS

The system of identification and registration of ovine and caprine animals was launched on 1 May 2005. In November 2004, 8,700 holdings keeping sheep and/or goats had been registered in the system. Data on animal owners (name, contact data, tax number and personal ID number) and on holdings (holding code, address, geographical location) are collected.

Animals must be tagged before they are six (intensive farming) or nine (extensive farming) months old and in any case before leaving the holding of birth. Breeding animals (animals with progeny or more than 1 year old) are tagged with double tags and individual ID numbers, fattening animals are tagged with single tags and holding ID numbers. Tags are delivered via the central identification and registration system.

All animal owners must keep an on-farm register. All movements, all tag losses and replacements must be entered in the register within 7 days.

A movement document has been designed to accompany animals during movements and to facilitate reports to the central database on the on- and off-farm movements.

4.5. Measures in place regarding the notification of diseases:

In accordance with paragraph 1 of Article 17 of the Veterinary Compliance Criteria Act - VCCA (UL RS 93/2005), animal keepers must immediately notify, as prescribed, the veterinary organisation in case of presence of disease or symptoms on the basis of which it may be suspected that the animal has become ill or died of a disease.

In accordance with paragraph 1 of Article 26 of VCCA, animal keepers or other natural and legal persons must communicate, as prescribed, any animal death or a dead animal carcass to an organisation carrying out the veterinary hygiene service (VHS) as public service in accordance with the regulations governing veterinary activities, and submit the dead animal carcass to that service. Prior to submission, animal keepers must handle dead animal carcasses as prescribed.

On the basis of the *Rules on animal diseases* (UL RS 81/2007), and in accordance with Contingency plan for BSE TSEs are compulsorily notifiable diseases. In case of suspected presence of the disease, the relevant veterinary organisation must immediately notify thereof the relevant Regional Office of VARS. The authorised laboratory must immediately notify the relevant Regional Office of VARS of the diagnostic investigation results. VARS must immediately, and no later than within 24 hours, notify of the disease the International Office of Epizootic Diseases – OIE, the European Commission, and the competent veterinary authorities of all the neighbouring countries. Notification shall include all the information required, and it shall be faxed or mailed or forwarded via the ADNS and WAHIS system.

4.6. Monitoring

4.6.1. Monitoring in Bovine Animals

	Estimated Number of tests
Animals referred to in Annex III, Chapter A, Part I, points 2.1, and point 3 . to Regulation (EC) 999/2001	10.000
Animals referred to in Annex III, Chapter A, Part I, points 2.2, of Regulation (EC) 999/2001	15.500
Others (specify)	

4.6.2. Monitoring in Ovine animals

	Estimated Number of tests
Ovine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) 999/2001	0
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) 999/2001	2300
Ovine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) 999/2001	50
Ovine animals referred to in Annex VII, points .3.4 (d) of Regulation (EC) 999/2001	10
Others (specify)	

4.6.3. Monitoring in Caprine animals

	Estimated Number of tests
Caprine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) 999/2001	
Caprine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) 999/2001	400
Caprine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) 999/2001	5
Caprine animals referred to in Annex VII, points 3.3 (c) of Regulation (EC) 999/2001	5
Others (specify)	

4.6.4. Discriminatory tests

	Estimated number of tests
Primary molecular testing referred to in Annex X, Chapter C, point 3.2 (c) (i) of Regulation (EC) 999/2001	5

4.6.5. Genotyping of positive and randomly selected animals

	Estimated number of tests
Animals referred to in Annex III, Chapter A, Part II, point 8.1 of Regulation (EC) 999/2001	5
Animals referred to in Annex III, Chapter A, Part II, point 8.2 of Regulation (EC) 999/2001	100

4.7. Eradication

4.7.1. Measures following confirmation of a BSE case:

4.7.1.1. Description:

BSE is officially confirmed where, after suspicion, the presence of disease is confirmed by the NRL on the basis of a histopathology, immunohistochemistry or another diagnostic method prescribed for the confirmation of BSE.

In case that the NRL confirms the presence of disease by the histopathology, immunohistochemistry, or by the combination of rapid tests as laid down in third subparagraph, point 3.1, Chapter C., Annex X, Regulation (EC) 999/2001 the results must immediately be officially communicated to the Chief Veterinary Officer of VARS by fax, upon a prior oral notification by phone.

Measures taken at the holding

On the official confirmation of the presence of BSE in the holding, the official veterinarian shall institute at the holding of the sick animal, by issuing an appropriate decision, the measures (in addition to the measures to be carried out on suspicion of BSE) to be taken in accordance with Article 13 and Annex VII to the Regulation (EC) No 999/2001:

- Requiring the complete and harmless disposal of all the parts of the carcass of infected animal, excluding the materials required for the additional tests;
- Carrying out the epizootiological investigation so as to identify the animals at risk;
- Requiring the official surveillance of the holding of the BSE-infected animal until the epizootiological investigation has been carried out: all movements of animals susceptible to BSE, and products of animal origin obtained from such animals from and to the holding must be approved by the official veterinarian so as to ensure the direct traceability and identification of relevant animals and products of animal origin;
- Animal keeper shall be entitled to a compensation for the animals destroyed or products harmlessly disposed of within the implementation of measures for the prevention, suppression and eradication of BSE.

On the basis of epizootiological investigation (on a checklist prepared in advance), the official veterinarian must identify:

- All other ruminants on the holding of the animal in which the disease was confirmed ;
- Where the disease has been confirmed in a female animal, its last progeny born within two years prior to, or after, the first clinical signs of onset of the disease in the mother;
- All animals from the cohort of the animal in which the disease has been confirmed;
- A possible source of the disease;

- Other animals at the holding of the sick animal or at other holdings, which may have been infected by the BSE-agent or may have been exposed to the same feed or source of contamination;
- The movement of potentially contaminated feedingstuffs, other material or any other means of transmission, which may have transmitted the BSE agent to or from the holding in question.

In case of confirmed presence of BSE in bovine animals, all the bovine animals identified in the second and third indents of the above epizootiological investigation and belonging to the group of animals at risk shall be killed and harmlessly disposed of.

Where the official veterinarian has established that the animals from the cohort or the progeny of the affected animal do not live in the same holding as the affected animal, he must visit all the holdings, where such animals are kept according to the data obtained, and check the identity of these animals. By issuing an appropriate decision, the official veterinarian shall ban all the movements from the holding of the animals from the cohort and of the progeny.

Where these holdings are situated within the territory of another Regional Office of VARS, the official veterinarian must immediately notify the Director of the relevant RO of the addresses of holdings situated within that particular RO, notifying thereof also the NDCC. Director of the relevant RO shall appoint an official veterinarian to immediately visit the relevant holdings, and issue a decision banning/restricting the movements of such animals.

In accordance with Article 13 and Annex VII to the Regulation (EC) No 999/2001, the progeny and cohort of the affected animal must be killed (euthanized) and subjected to BSE-tests, using the prescribed investigation methods. The official veterinarian shall agree on carrying out the euthanasia with a veterinarian of a veterinary organisation, and at the same time, he shall agree with the VHS service on the immediate removal of dead animal carcasses to the NVI section unit. There, the heads shall be removed from the carcasses and immediately delivered to the LPTSE (Laboratory of Pathology and TSEs) section room for further investigations, as the samples must be as fresh as possible. Submission of samples to the LPTSE must be notified in advance. The time of killing the animals shall be carefully planned so that the heads can be submitted to the LPTSE within its regular working hours and on a prior notification (preferably in the beginning of the week). If the cohort includes a major number of animals, the official veterinarian must plan euthanasia in agreement with the Laboratory so as to provide for the appropriate and timely taking of samples and transport thereof for diagnostic investigations.

Measures taken at the slaughterhouse

Measures at the slaughterhouse shall be taken already on the basis of a positive rapid test.

All parts of the body of an animal tested for BSE including the hide shall be retained under official control until a negative result of the rapid test has been obtained, unless they are disposed of in accordance with Article 4(2)(a) and (b) of Regulation (EC) No 1774/2002 of the European Parliament and of the Council

All parts of the body of an animal found positive or inconclusive in the rapid test including the hide shall be disposed of in accordance with Article 4(2)(a) and (b) of Regulation (EC) No 1774/2002. The head of suspect animal shall be submitted to the NRL for further investigations.

Where an animal slaughtered for human consumption is found positive or inconclusive to the rapid test, at least the carcass immediately preceding and the two carcasses immediately following the tested positive or inconclusive animal on the same slaughter line shall be

destroyed in accordance with Article 4(2)(a) and (b) of Regulation (EC) No 1774/2002, Slovenia avail derogation to destroy the aforementioned carcasses only if the result of the rapid test is confirmed to be positive or inconclusive by confirmatory examinations referred to in Annex X, Chapter C, point 3.1(b)

4.7.1.2. Summary table

	Estimated number
Animals to be killed under the requirements of Annex VII, Point 2.1. of Regulation (EC) 999/2001:	5

4.7.2. Measures following confirmation of a Scrapie case:

4.7.2.1. Description:

If a case of TSE in sheep and goats is confirmed by laboratory testing, the restrictions shall be maintained and the Main Office of VARS consulted regarding further action. As first measure all animals in the flock must be identified individually. Further investigations, such as genotyping and killing and complete destruction of all susceptible animals (partial depopulation) in accordance with Annex VII, Chapter A 2.3. b (ii) and 2.3.f to the Regulation (EC) No 999/2001, must be carried out. An intensive epidemiological investigation must be carried out around the positive case. Any restocking of farms shall be carried out in accordance with the Regulation (EC) No 999/2001.

National Reference Laboratory carries out further diagnoses of all the TSE-positive cases. They carry out the discriminatory tests so as to rule out BSE. In case of BSE or BSE-like results in sheep, the entire flock would be killed and harmlessly disposed of. Until now, the final diagnosis of all the discriminatory tests was – SCRAPIE (classical scrapie).

Derogations which may be decided on by a Member State in accordance with Annex VII to the Regulation (EC) No 999/2001:

At eradication in flocks we are making use of derogation referred to in point 2.3.f of Annex VII, where due to a low frequency of the ARR allele in certain flocks we are carrying out eradication within a 5-breeding years.

We have approved of movements for slaughter of lambs aged up to 3 months in accordance with point 2.3. b (ii) of Annex VII to the Regulation (EC) No 999/2001.

In two cases, scrapie was detected in two purebred breeding rams. Both rams were born in a holding, where the second scrapie case had been confirmed. As the male animals do not play an important role in scrapie transmission, we do not carry out eradication measures according to Annex VII to the Regulation (EC) No 999/2001 in these holdings, as the eradication measures have already been carried out in the holdings of origin of these two rams (derogation from point 2.2. of Annex VII).

4.7.2.2. Summary table

	Estimated number
Animals to be killed under the requirements of Annex VII, Point 2.3 of Regulation (EC) 999/2001:	100
Animals to be genotyped under the requirements of Annex VII, Point 2 . 3. of Regulation (EC) 999/2001:	400

4.7.3. Breeding programme for resistance to TSE s in sheep:

4.7.3.1. General description²:

Of 89,667 breeding sheep in total there have been included 15,000 purebred breeding sheep in the breeding programme. Breeding programme of TSE-selection includes the sheep of controlled flocks of the following breeds:

- Jezersko-Solčavska breed,
- Istrian pramenka breed,
- Bovška breed,
- Belokrajnska pramenka breed,
- Improved Jezersko-Solčavska breed.

Genotyping within the scope of the breeding programmes of Slovenian autochthonous breeds is conducted with the objective of determining the genetic resistance of ovine animals against TSEs. Objectives of the programme include the increase of the ARR allele frequency in ovine flocks and thereby the increased resistance against TSEs and, at the same time, a decreased frequency of the alleles whose susceptibility to TSEs has been proven. Thus, animals with TSE-non-resistant genotypes are culled.

In 2006, all the breeding programmes for the Slovenian autochthonous breeds were supplemented on the basis of Commission Decision 2003/100 ES (Annex VII, Chapter B, to Regulation (EC) No 999/2001), and operations by the end of 2010 in the Republic of Slovenia were established. This decision was adopted by breeders, included in the breeding programme, in 2006, and a Decision by MAFF, No. 33205-86/2006-5, was issued on 22. 8. 2007.

Every year, VARS requires the genotyping to be conducted in accordance with the breeding programme and based on the Decree on carrying out of systematic surveillance of animal diseases and vaccination of animals. Every year, beginning in 2005, the breeders and/or breeding organisations submit to VARS Main Office a list of animals to be genotyped in accordance with the basic breeding programme. The list is accessible via the VOLOS computer application. All the test results are entered in the database which is managed centrally for the entire sphere of animal selection at the Biotechnical Faculty situated in Rodica. Breeders have direct access to all these data, including the

² Description of the programme according to the minimum requirements laid down by Annex VII, Chapter B, to Regulation (EC) No 999/2001

TSE-testing results. In addition, the NVI sends to the relevant breeders all the genotyping results.

Every VARS Regional Office has direct access (via password) to the Biotechnical Faculty database (http://www.bfro.uni-lj.si/pls/oratest/drob_misc.vstop), where they may access the data on genotyping conducted and/or check the current situation at any relevant breeding holding.

Selection roadmap:

1. As of 2005, testing stations for rams have not been selling the NSP 4 and NSP 5 rams for mating purposes anymore.
2. As of 1. 1. 2008, the NSP 1 and NSP 2 rams only may be sold by the testing stations for the purposes of introduction into the genotype-controlled flocks.
3. As of 1.1. 2010, the NSP 1 rams only will be able to be sold by the testing stations for the purposes of introduction into the genotype-controlled flocks.
4. By the end of 2010, all the NSP 2-genotype rams will be culled from the genotype-controlled flocks.
5. The NSP 3 genotype, and also the NSP 2 and NSP 1 genotypes, may be sold for the purpose of introduction into the commercial flocks, in case that such genotypes are available on the market.
6. In cases where, on account of low frequency of the NSP 1 and NSP 2 genotypes, difficulties would arise in supplying the genotype-controlled flocks with the appropriate rams, the breeding organisation will decide on any possible deviations from the requirements, following a consultation with the Veterinary Administration of the Republic of Slovenia and with the relevant professional service of another organisation with a recognised small-ruminant-breeding status.

A final objective of the TSE-selection programme is to obtain in all the genotype-controlled flocks a status, where all the rams will have the ARR/ARR-allele (homozygote), and all the breeding ewes in the flocks will have the ARR/ARR-allele or be of the genotype, complying with the NSP 2 (ARR/ARQ, ARR/AHQ, ARR/ARH). As envisaged, this objective could be attained within a 10-year period, i.e. by 2015, and some flocks will have reached a phase, where all the animals will have the ARR/ARR-allele / homozygote (Phase I).

Flocks included in the selection programme shall be allotted the following statuses / phases by the breeding organisation:

- **Phase I status:** Flocks with all the animals of the ARR/ARR genotype. This status is equal to the "Level I" status from Annex VII, Chapter B, Part 3, to Regulation (EC) No 999/2001.

- **Phase II status:** Flocks with all the male breeding animals of the ARR/ARR genotype, and with the female breeding animals complying at least with the Phase III requirements. This status is equal to the "Level II" status from Annex VII, Chapter B, Part 3, to Regulation (EC) No 999/2001. Such status in the genotype-controlled flocks is envisaged to be reached by the end of 2010.

Phase III status: Flocks with all the animals tested, or descendants of tested animals. No tested animal shall have the VRQ-allele, and in case of non-tested animals, there shall be no possibility of the VRQ/- genotype; descendants of such animals may

therefore be of the NSP 1, NSP2 or NSP 3 genotypes. This status is internal in nature and is not laid down in Annex VII, Chapter B, Part 3 to Regulation (EC) No 999/2001. ,

Breeding animals introduced into a flock with a certain status shall be of an equal or higher status only; animals with a lower status may be supplied in cases only, where the animal has been genotyped and complied with the conditions for introduction. Breeding holdings with a higher status have precedence in the selection of animals for testing. Herd status is granted once a year, for all the herds. It is granted by the Biotechnical Faculty on the basis of data entered in the register of genotyped animals, and of other data entered in the same database.

Genotyping is conducted within the TSE-eradication programme. Eradication in Slovenia is carried out in such a way that, in case that classical Scrapie would be confirmed in a flock, only animals of the non-resistant NSP5, NSP4 and NSP3 genotypes would be killed or culled. Preliminary genotyping of all the animals in the infected flock is prerequisite for implementation of this method.

In the period 2005 – 2008, 18.454 animals were genotyped in total, among them 15.506 animals were genotyped within the breeding programmes.

Summary table of genotyping carried out in 2007

Category Group	Breeding programme Ewes	Breeding programme Rams	Eradication	Monitoring 8.1.	Monitoring 8.2.	Total
NSP1	202	54	51	0	0	307
NSP2	1322	300	128	0	9	1759
NSP3	2779	378	23	8	20	3208
NSP4	51	4	3	0	1	59
NSP5	200	23	1	4	0	228
Total	4554	759	206	12	30	5561

In 2007, a total of 5,561 genotyping tests were conducted, whereof 5,313 within breeding programmes, 206 within scrapie eradication, and 42 within monitoring. In 2007, the monitoring, as referred to in point 8.2. of Chapter A of Annex III to the Regulation (EC) No 999/2001, did not reach up to the envisaged 100 tests; however, the monitoring of 2006 was much more extensive than envisaged (348 tests).

Number of animals genotyped in 2008 according to NSP Groups depending on the purpose of the genotyping conducted - EU classification

Category Group	Breeding programme Ewes	Breeding programme Rams	Eradication	Monitoring 8.1.	Monitoring 8.2.	Total
NSP1	207	43		0	6	256
NSP2	1429	178		0	26	1633
NSP3	2799	274		1	47	3121
NSP4	49	2		0	0	51
NSP5	191	5		1	2	199
Total	4675	502		1	81	5260

In 2008, a total of 5,260 genotyping tests were conducted, whereof 5,177 within breeding programmes, 82 within monitoring and none within Scrapie eradication

Plan for 2009 and 2010

In 2008, the sampling and genotyping programme included 214 ovine flocks – 91 Jezersko-Solčavska breed, 79 improved Jezersko-Solčavska breed, 27 Bovška Breed and improved Bovška breed, 13 Belokranjska breed, and 4 Istrian Pramenka breed. In 2009, we included in the programme also 6 ovine flocks of Jezersko-Solčavska breed, 5 improved Jezersko-Solčavska breed, 3 Bovška Breed and improved Bovška breed, 2 Belokranjska breed, and 1 Istrian Pramenka breed.

In total, the 2009 programme included 17 new ovine flocks. In 2009, the genotyping is conducted in 231 ovine flocks, whereof in 97 Jezersko-Solčavska breed, 84 improved Jezersko-Solčavska breed, 30 Bovška breed and improved Bovška breed, 15 Belokranjska breed, and 5 Istrian Pramenka breed.

In 2010, the genotyping will be conducted in animals only which will be newly added to the controlled flocks (reconditioning), and animals in flocks to be included in the breeding programme for the first time.

4.7.3.2.

Summary table

	Estimated number
Ewes to be genotyped under the framework of a breeding programme as established in Article 6a of regulation (EC) No 999/2001	2500
Rams to be genotyped under the framework of a breeding programme as established in Article 6a of regulation (EC) No 999/2001	500

5. Costs

5.1. Detailed analysis of the costs:

5.2. Summary of the costs

Costs related to	Specification	Number of units	Unitary cost in €	Total amount in €	Community funding requested (yes/no)
1. BSE testing					
1.1. Rapid tests	Test: Enfer TSE	23.000	27,17	624.910,00	YES
	Test: Prionics Check Western	2.500		67.925,00	YES
2. TSE/Scrapie testing					
2.1. Rapid tests	Test: Enfer TSE	2.770	27,17	75.260,90	YES
	Test: Idexx				YES
	Test: Prionics Check Western - SR				YES
3. Discriminatory testing					
3.1. Primary molecular tests	Test: VLA Hybrid WB	5	165,96	829,8	YES

4. Genotyping						
4.1. Determination of genotype of animals in the framework of the monitoring and eradication measures laid down by Regulation (EC) No 999/2001	Method: single nucleotide polymorphism detection SNP (136, 154, 171) in the case of undefined results - sequencing	400	14,89	5.956,00	YES	YES
	Method: single nucleotide polymorphism detection SNP (136, 154, 171,141) in the case of undefined results - sequencing	105	16,53	1.735,65	YES	YES
4.2. Determination of genotype of animals in the framework of a breeding programme	Method: single nucleotide polymorphism detection SNP (136, 154, 171) in the case of undefined results - sequencing	3000	14,89	44.670,00	YES	YES
5. Compulsory slaughter						
5.1. Compensation for bovine animals to be killed /slaughtered under the requirements of Annex VII, Chapter A, point 2.1. of Regulation (EC) 999/2001		5	1200,00	6.000,00	YES	YES
5.2. Compensation for ovine and caprine animals to be killed/slaughtered under the requirements of Annex VII, Chapter A, point 2.3. of Regulation (EC) 999/2001		100	120,00	12.000,00	YES	YES
TOTAL'				839.287,35		YES