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Monitoring and eradication programme of TSE, BSE and scrapie

Approved* for 2009 by Commission Decision 2008/897/EC

Greece

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PROGRAMME FOR THE SURVEILLANCE AND ERADICATION OF BOVINE SPONGIFORM ENCEPHALOPATHY (BSE) PROPOSED BY GREECE FOR THE YEAR 2009

Introduction

In compliance with Community Legislation in force, particularly Reg. 999/2001 and amendments thereof, the Greek Authorities initiated active surveillance of BSE in cattle, by means of rapid BSE tests, since the beginning of 2001 by imposing a compulsory testing for all bovines aged >30 months old, slaughtered for human consumption as well as testing of emergency slaughtered bovines and fallen stock aged > 24 months old.

Annex A lists the results of BSE monitoring the last 7 years (2001-2007).

To date the BSE case detected in 2001 still remains the single BSE positive animal ever detected in Greece, during a period of 7 consecutive years of active surveillance and an overall number of more than 190.000 bovines tested.

The goal for 2009, apart from the standard objectives (increase of the no of bovines at risk tested as well as the number of clinically suspect BSE cases investigated), will be particularly focused on the improvement of practical and administrative procedures, especially with respect to record keeping.

1. Definitions

For the purposes of this programme the following definitions shall apply:

1.1 Bovines: Animals belonging to the species Bos Taurus and Bos indicus, as well as Bison bison and Bubalus bubalus.

1.2 Competent authority: Directorate General of Veterinary Services at the Greek Ministry of Rural Development and Food (MRDF) at national level or the Prefecture Veterinary Service at Prefecture level.

1.3 Animal suspected of being infected by BSE (BSE suspect animal):

a) live, slaughtered or dead animals, which show or have shown neurological or behavioural disorders or a progressive deterioration of the general condition linked to impairment of the central nervous system and for which the information gathered on the basis of a clinical examination, response to treatment, a post-mortem examination or an ante or post mortem laboratory analysis do not allow an alternative diagnosis to be established,
b) bovine animals which have produced a positive or inconclusive result from a BSE rapid test.

1.4 BSE infected animal: any animal in which BSE has been confirmed by histo-pathological examination or immuno-cyto-chemistry or demonstration of characteristic SAF fibrils by electron microscopy.

1.5 Specific Risk materials:

As defined in Reg. 999/2001 Annex XI

1.6 Indigenus BSE case: a case of BSE which has not been clearly demonstrated to be due to infection prior to importation as a live animal.

1.7 Bovine epidemiological cohort (cohort): a group of bovine animals which includes both:
(i) animals born in the same herd as the affected bovine animal, and within 12 months preceding or following the date of birth of the affected bovine animal and
(ii) animals which at any time during the first year of their lives were reared together with the affected bovine animal during the first year of its life.

1.8 Rapid tests: the laboratory tests mentioned in Annex B, Part I, whose results shall be available within 24 hours.

1.9 Confirmatory tests: the specific diagnostic assays mentioned in Annex B, Part II, which are carried out on animals suspected of being infected by BSE in order to confirm or rule out suspicion.

1.10 Passive surveillance: the reporting of all animals suspected of being infected by a TSE and, where TSE cannot be excluded by clinical investigation, the laboratory testing of such animals.

1.11 Active surveillance: the testing of animals not reported as suspected of being infected by a TSE, such as emergency slaughtered animals, animals with observations at ante mortem inspection, fallen stock, healthy slaughtered animals and animals culled in connection with a TSE case, in particular in order to determine the evolution and prevalence of TSE in a country or region thereof.";

1.12 Special emergency slaughter: slaughter of a bovine animal, on a veterinarian's order, following an accident or severe physical or functional disorders , that is carried out, outside a slaughterhouse, provided that the veterinarian decides that the animal cannot be transported to a slaughterhouse or will be subject to unnecessary suffering during transport.

1.13 Products of animal origin: all products originating from or containing products originating from animals within the meaning of directives 89/662/EEC or 90/425/EEC.

1.14 Placing on the market: any operation the purpose of which is to sell live animals or products of animal origin covered by the Regulation 999/01 to a third party,in the Community, or any other form of supply against payment or free of charge to such third party or storage with a view to supply to such a third party.

1.15 Holding: any place in which animals, covered by the Regulation 999/01, are held, kept, bred, handled or showed to the public.

2. Objectives of the programme

The programme's objectives are:

2.1 Systematic control of bovine animals slaughtered for human consumption as well as those who die or are killed in order to detect BSE infection, thus preventing the entry of the BSE agent in food chain of humans and animals.

2.2 Eradication of BSE outbreaks that will be detected, in order to prevent spreading and propagation of the disease.

3. Services implementing the programme

For the purposes of implementing the programme the Services involved and their responsibilities and competence shall be as follows:

3.1 The Department of Infectious Diseases, Animal Health Directorate, MRDF, shall:

a) Co-ordinate and manage the programme throughout the country, as regards both specific provisions thereof and in its entirety.
b) Collect and process all data obtained in the framework of the programme, at national level and inform the competent services of the European Commission as regards it's implementation.
c) Create the appropriate legal basis for the implementation of the measures laid down in the programme.
d) Secure and allocate funds and resources required for the implementation of the programme.
e) Keep, for seven years records of:
   i. The number of bovines subject to movement restrictions due to BSE suspicion.
   ii. The number and results of clinical and epidemiological investigations carried out on bovines in relation to BSE suspicions.
   iii. The number and results of laboratory examinations carried out on bovines for which a potential BSE infection could not be ruled out.
   iv. All data required in order to evaluate appropriate implementation of this programme.

f) Organize training courses, addressed to the personel of the services involved with the programmes' implementation, providing the latest knowledge pertaining to diagnosis, interpretation of laboratory results and epidemiology of the disease.

3.2 The **Regional & Local Veterinary Services**, which shall:

a) Carry out surveillance and control of TSEs throughout their region.
b) Collect and dispatch appropriate samples to the competent laboratories conducting tests for the detection of the BSE agent in accordance with the provisions of Annexes C and D.
c) Carry out clinical examination of animals prior to slaughter in order to prevent BSE suspect animals from being slaughtered.
d) Supervise removal, identification and disposal of specific risk materials at the slaughterhouses.
e) Keep a registrar of animals dying on the holdings, supervise their removal and disposal and ensure collection and consignment of the appropriate samples to the laboratories for the detection of the BSE agent.
f) Implement all measures and actions, provided for in the programme, in case of BSE suspicion or confirmation in a bovine holding.
g) Ensure appropriate implementation of BSE eradication measures.
h) Conduct an epidemiological investigation upon confirmation of BSE with a view to trace all animals epidemiologically linked to a BSE case in compliance with the provisions of the national legislation in force.
i) Keep, for seven years, a registrar of all actions taken, and results thereof, in the framework of the programme.
j) Organize information campaigns addresed to veterinarians, breeders' associations and all other parties involved with the programme, about its objectives, the content and the measures provided therein.

3.3 **The National Reference Laboratory for BSE**, as follows:

3.3.1 For the purpose of implementing the present programme for the surveillance and eradication of BSE the following is designated as National Reference Laboratory:

The Veterinary Laboratory of Larisa (MRDF), for approved BSE rapid tests and confirmatory tests, such as immuno-blotting (western blot).

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Address	: 6th km of Larisa – Trikala Highway 411 10 Larisa, Greece
Telephone	: 0030 2410 617980 / 617981
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3.3.2 Competence and obligations of the National Reference Laboratory

The National Reference Laboratory is charged with the following duties:

a) Examine samples collected from bovine slaughtered for human consumption and bovine not slaughtered for human consumption by means of approved rapid tests, in accordance with Annex B Part I.

b) Examine samples collected from BSE clinical suspect animals by means of approved rapid tests and appropriate confirmatory tests, such as immuno-blotting (western blot).
c) Examine all positive samples that are dispatched from the Authorized Laboratories for BSE by means of confirmatory tests, such as immuno-blotting (western blot).
When the results of the rapid tests and confirmatory tests are positive the samples are forwarded to the Community Reference Laboratory for further examinations (immunocytochemistry, immuno-blotting or demonstration of characteristic fibrils by electron microscopy).
d) Informs in writing the dispatching Service on the results of the tests.

The geographical areas falling within the scope of competence of the National Reference Laboratory are listed in Annex E.

e) Cooperate with the Authorized BSE Laboratories for the following purposes:
   i. Coordination for a uniform implementation of the diagnostic examinations for BSE.
   ii. Accreditation of the correct implementation of the diagnostic examinations for BSE.
   iii. Organization of ring trials with a view to ensure the diagnostic capacity and credibility of the Authorized BSE Laboratories.
   iv. Organization of joint meetings of all Authorized Laboratories.
f) Participate in ring tests among the National Reference Laboratories of the EU and cooperate with the EU Reference Laboratory for BSE.
g) Be kept updated on international scientific developments in the field of diagnosis and control of TSEs and adapt its diagnostic methods and protocols accordingly.
h) Keep and store the BSE infectious agents isolated or tissues containing them, originating from confirmed BSE cases.
i) Keep, for seven years, a record of all data pertaining to the tests carried out, in particular information on samples examined as well as photographs of Western Blots and update the data base kept in the Animal Health Directorate, MRDF, about the tests carried out, regularly, on a weekly basis, and immediately in the case of positive or inconclusive results.
j) Cooperate with the Department of Infectious Diseases (Animal Health Directorate, MRDF, as well as the Regional Veterinary Services at all levels of the programme's implementation.

3.4 The Authorized Laboratories for approved BSE rapid tests

For the purposes of this programme the following laboratories, are authorized for the implementation of BSE rapid diagnostic tests:
a) The **State Veterinary Laboratory of Ioannina**, MRDF.
b) The **Institute for Foot-and-Mouth Disease & Exotic Diseases** of the Athens Center of Veterinary Institutions (ACVI), MRDF.
c) The **Laboratory of Virology** of the Thessaloniki Center of Veterinary Institutions, MRDF.

The geographical areas falling within the scope of competence of each of the above mentioned laboratories are listed in Annex E.

In the course of the Programme's implementation each Authorized BSE Laboratory is charged with the following competencies and obligations:

a) Examination of samples by means of approved rapid BSE tests and information, in writing, of the dispatching authority, on the results of the examinations carried out.
b) In case of positive or inconclusive result of a rapid test, dispatch of the sample examined, to the competent National Reference Laboratory for further examination by means of appropriate methods.
c) Cooperation with the National Reference Laboratory in order to achieve uniform application of tests and interpretation of results.
d) Cooperation with the competent Regional Veterinary Authorities at all levels of the programmes implementation.
e) Preservation, for seven years, of a record containing all data pertaining to the tests carried out, in particular information on samples examined and updating of the data base kept in the Animal Health Directorate, MRDF, about the tests carried out, regularly, on a weekly basis, and immediately in the case of positive or inconclusive results.

3.5 The **Veterinary Centers, Institutes and Laboratories of the MRDF** conducting diagnostic examinations for bovine diseases, which shall:

a) Dispatch appropriate samples to the National Reference Laboratory for BSE examination whenever they receive samples originating from bovine animals presenting neurological or behavioural disorders or a progressive deterioration of the general condition irrespective the establishment of a different diagnosis.
b) Keep, for seven years, a record of the examinations carried out and their results, upon samples originating from bovines for which a BSE suspicion was established on the basis of clinical signs and history.
c) Submit, every three months, to the Department of Infectious Diseases a report on the examinations carried out and their results.

4. Bovine BSE surveillance programme

Surveillance of BSE is carried out by the implementation of rapid BSE diagnostic tests listed in Annex B Part I.

Subject to examination for the detection of the BSE agent are:

4.1 Bovines slaughtered for human consumption

4.1.1 All bovine animals over 24 months of age which:

- subject to "special emergency slaughtering" as defined in Article 2(n) of Council Directive 64/433/EEC, or
- slaughtered in accordance with Annex I, Chapter VI, point 28(c), to Directive 64/433/EEC, except animals without clinical signs of disease slaughtered in the context of a disease eradication campaign.

4.1.2 All bovine animals over 30 months of age which:

- subject to normal slaughter for human consumption, or

- slaughtered in the context of a disease eradication campaign in accordance with Annex I, Chapter VI, point 28(c), to Directive 64/433/EEC, but showing no clinical signs of disease.

4.2 Bovines not slaughtered for human consumption

All bovine animals over 24 months of age which have died or been killed but not:

- killed in the framework of an epidemic, such as foot-and-mouth disease,
- slaughtered for human consumption.

Sampling is carried out in accordance with the Annex C. A special derogation has been provided for certain remote islands which have been excluded from the testing of samples originating from both animals slaughtered for human consumption and not slaughtered for human consumption.

4.3 Examination of BSE suspect bovines:

a) All bovine animals classified as "BSE suspects" due to the presence of relevant clinical symptoms are subject to a special examination for BSE.
b) The above mentioned animals shall be killed and sampled on a special decision issued by the competent veterinary authorities of the prefecture concerned.
c) While issuing such a decision, the competent authorities, along with the clinical evaluation of the animals in question, shall consider whether a) the suspect animals are originating in countries where indigenous BSE cases were detected, b) there is a possibility that the animals may have consumed feed infected with the BSE agent, c) they gave birth to animals that were subsequently detected as BSE infected or they are offsprings of such female animals and d) during the first year of their life they were reared together with animals that were subsequently diagnosed as BSE cases.

5. BSE surveillance in slaughterhouses.

5.1 Examination of bovine animals prior to slaughter

In the framework of BSE surveillance the following activities shall be carried out in slaughterhouses:

a) Compulsory ante mortem examination of all bovines slaughtered for human consumption, aiming to detect symptoms that could raise a BSE suspicion.

b) A thorough check of all accompanying documents (e.g certificates, movement permits) and animal identification and registration with a view to detect their origin.

5.2 Checks upon bovine carcasses

5.2.1 All carcasses originated from bovine animals subject to a BSE rapid test shall be kept under official supervision and will not be given a health mark provided for in Chapter III of Annex I to Regulation (EC) No 854/2004 unless the rapid test produces negative results.

5.2.2 All parts of the body from a bovine animal subject to a BSE rapid test, including the hides, shall be stored and kept under official control upon a special document issued by the veterinarianin charge of sanitary inspections until a negative esultis available, unless destroyed in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.

5.2.3 All parts of the body of the above mentioned animals producing a negative result on BSE testing, excluding the specific risk materials, shall receive a health mark provided for in Chapter III of Annex I to Regulation (EC) 854/2004 and shall be placed into market upon a release document issued by the veterinarian in charge of sanitary inspections at the slaughterhouse.

5.2.4 In case of positive or inconclusive results on a BSE rapid test, all parts of the animal, including the hide shall be destroyed in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002 except for the tissues preserved for laboratory examination.

5.2.5 In case of positive or inconclusive results in a BSE rapid test carried out on a bovine animal that was slaughtered for human consumption, the carcass on which the BSE agent was detected as well as the one preceding and the two carcasses that follow, on the same slaughter line shall be destroyed, under the provisions of point 5.2.4.

5.2.6 In case the results of a BSE rapid test are late, due to technical reasons, and further storage of the carcass imposes a risk of spoiling it, all parts of the animals body, including the hide shall be destroyed as appropriate.

5.3 Management of Specific Risk Materials (SRMs)

SRMs, as defined previously, after removal from the carcass, shall be gathered under official supervision provided by the veterinarian in charge of sanitary inspections at the slaughterhouse, measured and their weight recorded, stained with appropriate dye and disposed as appropriate.

6. Surveillance of BSE in bovine holdings

Surveillance of BSE in holdings is carried out on the occasion of delivering routine veterinary services, such as medical treatment, implementation of disease control/eradication programmes, issuing or checking certificates or movement permits, identification of animals, epidemiological inquiries, collection of samples etc.

During the performance of the above mentioned activities a clinical evaluation of the animals is carried out aiming to spot out any clinical symptoms that could raise a BSE suspicion.

In case a BSE suspicion arises all relevant measures defined in the present programme are put into force in order to prevent spreading of the disease and to ensure protection of public health.

Along with the above mentioned BSE surveillance, special care is taken to ensure briefing of the farmers on the symptoms, pathogenesis and epidemiology of BSE as well as the legal provisions in force pertaining to the requirement of compulsory notification of the disease.

7. BSE eradication measures

7.1 Measures on BSE suspicion

These measures are imposed on a temporary basis pending the results of laboratory examinations.

Depending on the nature of premises where suspicion of BSE was risen, the following measures apply:

7.1.1 Measures on holdings

a) Placement of the holding under official isolation, prohibition of movements of live animals in and off the holding and prohibition of movements of potencially contaminated feedingstuffs off the holding.
b) Census and individual identification of all susceptible animals present on the holding during the time of BSE suspicion.
c) Clinical examination of the suspect animal(s), following the guidelines set out in Annex F and completion of Parts I, II, III and IV thereof.
d) Killing of the suspect animal(s) and dispatch of samples to the competent Reference Laboratory for BSE, accompanied by a sample consignment and examination result form (Annex D) and a clinical examination form (Annex F).
e) Destruction of the carcass(es) of the suspect animal(s) in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.
f) Notification to the farmer, in writing, with regard to his/hers obligations.

7.1.2 Measures in slaughterhouses

a) In case a clinical suspicion is raised during ante-mortem inspection

(i) Prohibition of slaughter, both of the suspect animal(s) and the other animals which may be part of a consignment originating in the same holding.
(ii) Clinical examination of the suspect animal(s), following the guidelines set out in Annex F and completion of Parts I, II,III and IV thereof.
(iii) Killing of the suspect animal(s) and dispatch of samples to the competent Reference Laboratory for BSE, accompanied by a sample consignment and examination result form (Annex D) and a clinical examination form (Annex F).
(iv) Isolation of all other animals originating in the same holding at an appropriate place, to be decided by the competent regional veterinary service, until results of the BSE tests are available.
(v) Destruction of the carcass(es) of the suspect animal(s) in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.
(vi) Initiation of restrictive measures specified in paragraph 7.1.1 in the holding of origin as well as every other holding epidemiolocally linked to it.

b) In case BSE suspicion is raised on an animal slaughtered for human consumption, following the positive result of a rapid test.

(i) Initiation of measures provided in par. 5.2.
(ii) Tracing back of the holding of origin and initiation of measures set out in par. 7.1.1.
(iii) Disinfection of sheltered and outdoor premises of the slaughterhouse, utensils objects and equipment by means of approved disinfectant. The use of a disinfectant containing 20.000 ppm of free chlorine is recommended.

7.2 Measures on confirmation of BSE

When the presence of BSE in a bovine is officially confirmed, following the positive result of an approved BSE test carried out in the competent BSE laboratories, depending on the nature of premises, the following measures shall be applied:

7.2.1 Measures on holdings

a) Killing and destruction of bovine animals that identified by the epidemiological inquiry referred to par. 7.2.3(b) in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.
b) Killing and destruction of bovine animals that identified by the epidemiological inquiry referred to par. 7.2.3(c) ina ccordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.
   Cohort is a group of bovine animals which includes both:
   (i) animals born in the same herd as the affected bovine animal, and within 12 months preceding or following the date of birth of the affected bovine animal and
   (ii) animals which at any time during the first year of their lives were reared together with the affected bovine animal during the first year of its life.
c) Collection of appropriate brain samples of all bovine that are killed which shall be examined by means of an approved rapid test as well as confirmatory tests for the detection of sub- or pre- clinic forms of BSE.
d) Destruction, maybe, of contaminated feedingstuffs.
e) Disinfection of sheltered and outdoor premises of the holding, utensils, objects and equipment by means of an approved disinfectant. The use of a disinfectant containing 20.000 ppm of free chlorine is recommended.

7.2.2 Measures in slaughterhouses

a) Tracing back of the holding of origin and initiation of measures set out in par. 7.2.1.
b) Disinfection of sheltered and outdoor premises of the slaughterhouse, utensils objects and equipment by means of approved disinfectant. The use of a disinfectant containing 20.000 ppm of free chlorine is recommended.

7.2.3 A detailed epidemiological inquiry is carried out aiming to identify:

a) all other ruminants on the holding of the animal in which the disease was confirmed,
b) where the disease was confirmed in a female animal, its progeny born within two years prior to, or after, clinical onset of the disease,
c) all animals of the cohort of the animal in which the disease was confirmed,
d) the possible origin of the disease,
e) other animals on the holding of the animal in which the disease was confirmed or on other holdings which may have become infected by the BSE agent or been exposed to the same feed or contamination source,
f) the movement of potentially contaminated feedingstuffs, of other material or any other means of transmission, which may have transmitted the BSE agent to or from the holding in question,
g) epidemiological inquiry shall be carried out in accordance to the guidelines laid down in Annex G and its findings are duly recorded in parts I, II and III thereof,
h) in case the epidemiological inquiry reveals the presence of an imported BSE case, except for the competent services of the E. Commission, a relevant communication is provided to the competent authorities at the country of origin of the infected animal.

8. Data submission

When a BSE case is confirmed or suspected the competent Regional Veterinary Authority, at prefecture level, shall submit to the Department of Infectious Diseases, a dossier containing all relevant clinical, laboratory and epidemiological data, copies of all the administrative documents pertaining to the case and a report outlining the measures imposed and actions taken.

9. Laboratory examinations

9.1 Active surveillance

All bovine samples collected in the framework of the programme shall be examined using a BSE rapid test as defined in Annex B, Part I and shall be considered negative upon negative results of a rapid test.

Upon positive results of a rapid test all the samples originated from suspect animals, shall be forwarded by the competent laboratory in which the BSE rapid test was carried out, to the National Reference Laboratory for further examinations in accordance with paragragh 3.3.2(c).

9.2 Passive surveillance

All BSE suspect animals, on the basis of relevant clinical symptoms shall be at least subjected to two (2) different confirmatory tests. In case both confirmatory tests produce negative results the animal shall be considered negative.

In all other cases (namely positive results on one confirmatory test) the animal sampled shall be considered BSE infected.

10 . Cost of implementation

Expenditure incurred for the implementation of the programme will be borne by the Regular Budget of the MRDF and may be eligible for a Community financial.
The forecasted annual budget for the implementation of the programme figures in the table that follows.

S/N	Description of Expenditure	Budget (EURO)
(1)	Costs of rapid tests for the examination of bovines aged > 30 months slaughtered for human consumption (34.000 samples x 15,03 EURO, by estimation)	511.020,00
(2)	Costs of rapid tests for the examination of dead / emergency slaughtered / not healthy at ante mortem examination bovines aged > 24 months (6.000 samples x 15,03 EURO, by estimation)	90.180,00
(3)	Costs for compensation to owners for the value of their animals culled and destroyed (1.500 animals x 1.000,00 EURO, by estimation)	1.500.000,00
(4)	Subsidization of farmers for the collection and disposal of dead bovines sampled for BSE testing (4.000 animals x 100,00 EURO, by estimation)	400.000,00
(5)	Collection, packaging and shipment of samples(40.000 samples x 10,00 EURO)	400.000,00
	Total Forecasted Expenditure	2.901.200,00

Requested Community Financial Participation **(100% for expenditures (1) & (2))** **(50% for expenditures (3))**	**601.200,00** **750.000,00**
Total Requested Community Financial Participation	**1.351.200,00**

Specifically the following measures and actions stipulating from the programme are eligible for co-financing:

Financial assistance of Reference Laboratories, and authorized laboratories for the purchase of reagents required in special laboratory tests for the diagnosis of BSE.

Supporting documentation and procedures for payment of expenditures stipulating from the implementation of the programme are laid down in Ministerial Decision No. 258455/6673/12-05-2004.

11. Annexes

The following Annexes form an integral part of the programme:

ANNEX A: BSE tests carried out in Greece during the years 2001-2007 and results thereof
ANNEX B: Prescribed Laboratory Methods for the diagnosis of BSE
ANNEX C: Technical instructions for sampling and sample consignment for BSE examination of bovines (rapid tests and histopathology)
ANNEX D: Sample consignment and examination result form (General, D & D1)
ANNEX E: The geographical areas falling within the scope of competence of each laboratory.
ANNEX F: BSE Clinical Examination Report
ANNEX G: BSE Epidemiological Inquiry Report

ANNEX A: BSE tests carried out in Greece during the years 2001-2007 and results thereof

Bovines tested for BSE in 2001

Target Group	No of samples	Negative	Positive
Aged> 30 months slaughtered for human consumption	15.326	15.325	1
Emergency slaughter (Age>24 months)	224	224	0
Fallen stock (Age>24 months)	1.429	1.429	0
BSE–contact animals	95	95	0
Clinically Suspect	5	5	0
TOTAL	**17.079**	**17.078**	**1**

Bovines tested for BSE in 2002

Target Group	No of samples	Negative	Positive
Aged> 30 months slaughtered for human consumption	21.457	21.457	0
Emergency slaughter (Age>24 months)	249	249	0
Fallen stock (Age>24 months)	1.990	1.990	0
BSE–contact animals	22	22	0
"Not Healthy" at ante-mortem examination	17	17	0
Clinically Suspect	0	0	0
TOTAL	**23.735**	**23.735**	**0**

Bovines tested for BSE in 2003

Target Group	No of samples	Negative	Positive
Aged> 30 months slaughtered for human consumption	22.396	22.396	0
Bovines>30 months slaughtered for human consumption in the framework of disease eradication programmes	2.146	2.146	0
Emergency slaughter (Age>24 months)	127	127	0
Fallen stock (Age>24 months)	1.798	1.798	0
BSE–contact animals	0	0	
"Not Healthy" at ante-mortem examination	74	74	0
Clinically Suspect	1	1	0
TOTAL	**26.542**	**26.542**	**0**

Bovines tested for BSE in 2004

Target Group	No of samples	Negative	Positive
Aged> 30 months slaughtered for human consumption	20.303	20.303	0
Bovines>30 months slaughtered for human consumption in the framework of disease eradication programmes	5.710	5.710	0
Emergency slaughter (Age>24 months)	114	114	0
Fallen stock (Age>24 months)	2.668	2.668	0
"Not Healthy" at ante-mortem examination	9	9	0
Clinically Suspect	0	0	0
TOTAL	**28.804**	**28.804**	**0**

Bovines tested for BSE in 2005

Target Group	No of samples	Negative	Positive
Aged> 30 months slaughtered for human consumption	24.082	24.082	0
Bovines>30 months slaughtered for human consumption in the framework of disease eradication programmes	3.568	3.568	0
Emergency slaughter (Age>24 months)	78	78	0
Fallen stock (Age>24 months)	3.956	3.946	0
TOTAL	**31.684**	**31.684**	**0**

Bovines tested for BSE in 2006

Target Group	No of samples	Negative	Positive
Aged> 30 months slaughtered for human consumption	24.086	24.086	0
Bovines>30 months slaughtered for human consumption in the framework of disease eradication programmes	4.004	4.004	0
Emergency slaughter (Age>24 months)	97	97	0
Fallen stock (Age>24 months)	4.507	4.507	0
TOTAL	**32.694**	**32.694**	**0**

Bovines tested for BSE in 2007

Target Group	No of samples	Negative	Positive
Clinically Suspect	4	4	0
Emergency slaughter (Age>24 months)	76	76	0
Fallen stock (Age>24 months)	4269	4269	0
Aged> 30 months slaughtered for human consumption	26.096	26.096	0
TOTAL	**30.445**	**30.445**	**0**

ANNEX B: Prescribed Laboratory Methods for the diagnosis of BSE

I. Rapid BSE diagnostic tests/immunoassays

a) Immuno-blotting test based on a Western blotting procedure for the detection of the Proteinase K resistant fragment PrP^{Res} (Prionics-Check Western test),

b) chemifuminescent ELISA test involving an extraction procedure and an ELISA technique, using an enhanced chemiluminescent reagent (Enfer test & Enfer TSE Kit version 2.0, automated sample preparation),

c) microplate based immunoassay for the detection of PrP^{Sc} (Enfer TSE version 3),

d) sandwich immunoassay for PrP^{Res} carried out following denaturation and concentration steps (Bio-Rad TeSeE test),

e) microplate based immunoassay (ELISA) which detects Kresistant PrP^{Res} with monoclonal antibodies (Prionics-Check LIA test),

f) conformation-dependent immunoassay, BSE antigen test kit (Beckman Coulter InPro CDI kit).

g) chemiluminescent ELISA for qualitative determination of PrP^{Sc} (CediTect BSE test),

h) immunoassay using a chemical polymer for selective PrP^{Sc} capture and a monoclonal detection antibody directed against conserved regions of the PrP molecule (IDEXX HerdChek BSE Antigen Test Kit, EIA),

i) microplate based chemiluminescent immunoassay for the detection of PrP^{Sc} in bovine tissues (Institut Pourquier Speed'it BSE),

j) lateral flow immunoassay using two different monoclonal antibodies to detect Proteinase K resistant PrP fractions (Prionics Check PrioSTRIP),

k) two-sided immunoassay using two different monoclonal antibodies directed against two epitopes presented in a highly unfolded state of bovine PrP^{Sc} (Roboscreen Beta Prion BSE EIA Test Kit),

l) sandwich ELISA for the detection of Proteinase K resistant PrP^{Sc} (Roche Applied Scince PrionScreen).

m) antigen-capture ELISA using two different monoclonal antibodies to detect Proteinase K resistant PrP fractions (Fujirebio FRELISA BSE post-mortem rapid BSE Test).

II. Confirmatory BSE tests

(in use for samples originated from BSE- suspect bovines in order to confirm or rule out suspicion)

Histo-pathological diagnostic methods and other laboratory methods described in the OIE *Manual of Standards for Diagnostic Tests and* Vaccines (5th Edition 2004), such as **immuno-cyto-chemistry** and **demonstration of characteristic SAF fibrils by electron microscopy**.

ANNEX C: Technical instructions for sampling and sample consignment for BSE examination of bovines (rapid tests and histopathology).

Laboratory confirmation of BSE in bovines is achieved either by a rapid test or by **an approved confirmatory test, such as immuno-blotting (western blott)** of the suspects' animal's brain stem, where the pathological isomeric of PrP protein is usually located.

The appropriate procedure for the removal, preparation, conservation and consignment of the sample to the competent BSE laboratory comprises, in order, the following steps:

1. Separation of the head from the rest of the body at the site of the atlantoaxial joint.
2. Inversion of the head, aiming to reveal the foramen magnum.
3. Insertion of the special spoon inside the foramen magnum, close to its dorsal wall edge as far as 7-8 cm deep.
4. Rotation of the sampling spoon by 90° on either sides of the vertical axis (clockwise and backwards) for the separation of the existing lateral branches of the cranial nerves.
5. Incision of the brain stem at a length of 7 to 8 cm by bending the spoon downwards and simultaneous traction outwards.
6. Storage of the sample in an hermetically closed plastic container.
7. Labeling of the container (individual ear-tag no).

It is very important that each sampling spoon should only be used once and the person charged with sampling for BSE must wear single-use plastic gloves during the entire procedure.

Dispatch of the sample to the competent BSE laboratory must be conducted on the day of sampling by courier.

ANNEX D1. TSE sample consignment form in use f bovines slaughtered for human consumption an mpled for BSE

FROM: (Authority)..... Person in charge: ..... TO: .....
.....(Prefecture Code.....) Signature .....
Tel no .....

PART I. ANIMAL & HOLDING INFO

Country of birth (if Greece indicate Prefecture Code)	Breeding country (if Greece Pref /Holding Code No)	Date of Birth (DD/MM/YY)	Eartag number	Passport number	Examination reason		Date of slaughter / death / killing of the animal (DD/MM/YY)	Date of sampling (DD/MM/YY)	Slaughterhouse (Code No)	Sample signaling
				Random samplin (> 30 months)	Clinically healthy (programmes >30 months)					

PART II. TEST RESULTS (Person in charge..... Signature .....)

Sample signaling	Reception laborato-ry (code No)	Date of sample delivery (DD/MM/YY)	Sample condition	TSE examinations and results thereof					Final result	
				Rapid test Biorad TeSeE		Histopa-thology result	Immuno-blotting result	Immunoli-stochemist. result	Date of issue of final result (DD/MM/YY)	Final Diagnosis
				Date	Result					

ANNEX D : Sample consignment and examination result form

FROM: .....
.....
.....(Pref. Code no)

TO: .....
.....
.....

PART I: Surveillance information

I.1 Animal and holding information

Country of birth (if Greece Pref /Holding No)		
Breeding country (if Greece Pref /Holding Code No)		
Date of Birth (DD/MM/YY)		
Eartag number		
Passport number		
Sex	Male	Female

I.2 Reason for examination

021 Emergency slaughter, >24 months	
022 Fallen stock, >24 months	
023 TSE clinically suspect (any age)	
024 Bovine >30 mon, control programmes)	
025 Bovine >30 mon for human consumption	
026 Sick prior to slaughter > 24 months	
027 Cohort Animals, ≥ 12 months	
028 Contact animals, ≤ 24 months	

I.3 Sampling information

Date of slaughter / death / killing of the animal (DD/MM/YY)			
Date of sampling (DD/MM/YY)			
Sampling location	Slaughterhouse (Code No)		
	Holding		
	Other		
Sample condition at collection		1 GOOD	2 BAD
Sample signaling			

Person in charge for the sampling..... .....Signature.....

PART II: Laboratory examinations and results thereof

II.1 Laboratory examinations

Reception laboratory (code No)			
Date of sample delivery (DD/MM/YY)			
Sample condition	Good	Bad	Unsuitable

II.2 Examination results

Test method	Result		
	01 Neg.	02 Pos.	03 Inc.
1. Rapid test			
2. Immunoblotting			
3. Histopathology			Unsuitable
4. Immunohistochemist.			

II.3 Final result

Date of issue of final result (DD/MM/YY)		
Final Diagnosis	**POSITIVE**	**NEGATIVE**

Person in charge for the laboratory examination..... Signature.....

ANNEX D: BSE sample consignment form

GENERAL INSTRUCTIONS - REMARKS

1. In the framework of BSE surveillance a considerable number of bovine brain tissue samples shall be collected and consigned to the competent laboratories, belonging to various sub-populations.

   All samples upon consignment must be accompanied by certain information, absolutely necessary in case of positive results as well as for routine epidemiological evaluation of the BSE programmes results.

2. Considering the number of samples collected on an annual basis and associated paper work 2 different options exist as regards the sample consignment form for BSE.

   a) Annex D, illustrates the form used so far (1 form per sample) and can be used for samples collected from any kind of bovines (e.g. emergency slaughter, clinically suspect e.t.c.).

   b) Annex D1, illustrates a more condensed type of form to be used at the slaughterhouses in the case of multiple animal sampling and exclusively in the cases of
      - Healthy bovines >30 months old slaughtered for human consumption
      - Healthy bovines >30 months old slaughtered for human consumption in the framework of disease eradication programmes.

In all cases the competent authority who sends a BSE sample to the laboratory, must make sure that the accompanying document will be duly completed on Part I.

ANNEX E: Geographical areas falling within the scope of competence of the National Reference Laboratory and the Authorized Laboratories.

Prefecture ID	PREFECTURE	Bovines slaughtered for human consumption	Bovines not slaughtered for human consumption	Clinical suspects
		Competent laboratory	Competent laboratory	Competent laboratory
01	AETOLOAKARNANIA	Ioannina	Ioannina	Larisa
02	ATTIKI (WEST ATTIKI)	FMD	FMD	Larisa
03	VIOTIA	FMD	FMD	Larisa
04	EVIA	FMD	FMD	Larisa
05	EVRITANIA	FMD	FMD	Larisa
06	FTHIOTIDA	FMD	FMD	Larisa
07	FOKIDA	FMD	FMD	Larisa
09	ATTIKI (EAST ATTIKI)	FMD	FMD	Larisa
11	ARGOLIDA	FMD	FMD	Larisa
12	ARKADIA	FMD	FMD	Larisa
13	ACHAIA	FMD	FMD	Larisa
14	ILIA	FMD	FMD	Larisa
15	KORINTHIA	FMD	FMD	Larisa
16	LAKONIA	FMD	FMD	Larisa
17	MESSINIA	FMD	FMD	Larisa
21	ZAKYNTHOS	FMD	FMD	Larisa
22	KERKIRA	Ioannina	Ioannina	Larisa
23	KEFALLINIA	FMD	FMD	Larisa
24	LEFKADA	FMD	FMD	Larisa
25	ATTIKI (ATHENS)	FMD	FMD	Larisa
29	ATTIKI (PIREAUS)	FMD	FMD	Larisa
31	ARTA	Ioannina	Ioannina	Larisa
32	THESPROTIA	Ioannina	Ioannina	Larisa
33	IOANNINA	Ioannina	Ioannina	Larisa
34	PREVEZA	Ioannina	Ioannina	Larisa
41	KARDITSA	Larisa	Larisa	Larisa
42	LARISSA	Larisa	Larisa	Larisa
43	MAGNESIA	Larisa	Larisa	Larisa
44	TRIKALA	Larisa	Larisa	Larisa
51	GREVENA	Thessaloniki	Thessaloniki	Larisa
52	DRAMA	Thessaloniki	Thessaloniki	Larisa
53	IMATHIA	Thessaloniki	Thessaloniki	Larisa
54	THESSALONIKI	Thessaloniki	Thessaloniki	Larisa
55	KAVALA	Thessaloniki	Thessaloniki	Larisa
56	KASTORIA	Thessaloniki	Thessaloniki	Larisa
57	KILKIS	Thessaloniki	Thessaloniki	Larisa
58	KOZANI	Thessaloniki	Thessaloniki	Larisa
59	PELLA	Thessaloniki	Thessaloniki	Larisa
61	PIERIA	Thessaloniki	Thessaloniki	Larisa
62	SERRES	Thessaloniki	Thessaloniki	Larisa
63	FLORINA	Thessaloniki	Thessaloniki	Larisa
64	CHALKIDIKI	Thessaloniki	Thessaloniki	Larisa
71	EVROS	Thessaloniki	Thessaloniki	Larisa
72	XANTHI	Thessaloniki	Thessaloniki	Larisa
73	RODOPI	Thessaloniki	Thessaloniki	Larisa
81	DODEKANISA	FMD	FMD	Larisa
82	KYKLADES	FMD	FMD	Larisa
83	LESVOS	FMD	FMD	Larisa
84	SAMOS	FMD	FMD	Larisa
85	CHIOS	FMD	FMD	Larisa
91	IRAKLIO	FMD	FMD	Larisa
92	LASITHI	FMD	FMD	Larisa
93	RETHIMNO	FMD	FMD	Larisa
94	CHANIA	FMD	FMD	Larisa

Notes :
Larisa=State Veterinary Laboratory of Larisa (NRL), Thessaloniki=Laboratory of Virology (TCVI), FMD=Institute for FMD & Exotic Diseases, Ioannina=State Veterinary Laboratory of Ioannina.

ANNEX F: BSE Clinical Examination Report

#

HELLENIC REPUBLIC (Date)
PREFECTURE ....
VETERINARY SERVICE (Ref.No.)
LOCAL VET.STATION ....

Part I : Information about the holding

1. Name of owner	
2. Address of owner	
3. Location of holding	
4. Species of animals	
5. Number of animals	
6. Identification of animals (ear tag numbers)	
7. Production orientation	
8. Year of establishment	
9. Other species (sheep, goats, pigs, poultry)	

Part II : Information about the suspect animal(s)

Ear tag No	Date of birth	Breed	Sex	
			♂	♀

Part III : Information leading to suspicion of BSE

1. Date of notification	
2. Source of notification	
3. Date of 1st (clinical) examination	
4. Provisional diagnosis (if set)	
5. Medical treatment (if administered)	
a) Description of treatment	
b) Duration	
c) Result	
6. Date of 2nd (clinical) examination	
7. Date of killing	
8. Ref.no and date of laboratory Confirmation	

ANNEX F: (Continued)

#

Part IV: Findings of clinical examination

Symptoms / Signs		YES	NO	Date of Onset
Behavioral Changes	Reluctance to movements			
	Unnatural position and bearing of head			
	Pressure of head against objects			
	Hypersensitivity (to light, sound)			
	Grinding of teeth			
	Hypermobility of ears			
	Aggressiveness			
	Muscular tremor			
	Kicking			
Locomotive Disorders	Rotational movement			
	Weakness to stand / Falling			
	Ataxia of fore / hind legs			
	Paresis			
	Paralysis			
Other Symptoms	Loss of body weight			
	Loss of general condition			
	Blindness			
	Skin lesions			
	Itching			
	Other (specify)			

(Name of veterinarian)

.....

ANNEX G: BSE Epidemiological Inquiry Report
#

HELLENIC REPUBLIC (Date)
PREFECTURE ....
VETERINARY SERVICE (Ref.No.)
LOCAL VET.STATION..... .....

Part I: Information about the holding

1. Name of owner	
2. Address of owner	
3. Location of holding	
4. Holding Code No	
3. Number & Species of animals	
4. Ref. no. and date of laboratory confirmation	
5. Ref. no. and date of clinical examination report	

Part II: Retrospective epidemiological inquiry – Origin of infection

1: Origin of infected animal(s) (check the appropriate box)

α) Was born in the holding : YES ☐ NO ☐

β) Was introduced into the holding : YES ☐ NO ☐

2 : If **born** in the holding, record in the following Table the progeny, offspring, siblings and animals belonging to the same cohort as the infected animal which are present in the holding.

Relation	Number of animals	Identification of animals
F2 progeny		
F1 progeny		
Siblings		
F1 offspring		
F2 offspring		
Cohort (*)		

(*) "Cohort" means animals born in the same herd as the affected bovine animal, and within 12 months preceding or following the date of birth of the affected bovine animal and
animals which at any time during the first year of their lives were reared together with the affected bovine animal during the first year of its life

3 : If **introduced** into the holding, record in the following Table information pertaining the origin of the infected animal(s).

1. Date of entry into the holding				
2. Holding / area of origin				
3. Are there more animals of same origin ?	YES		NO	
- If YES in 3.3, how many ?				
- If YES in 3.3, which (ear tags) ?				

ANNEX G : (Continued)

4. In any case, record in the following Table information pertaining to feeding practices

1. Description of feed used in the holding	
2. Origin of feed	
3. Conditions & practices of feeding	
4. Use of compound feed / pre-mixes / additives ?	YES ☐ NO ☐
a) If YES in 4, plan of manufacture	
b) If YES in 4, proprietary name	
c) If YES in 4, composition	
d) If YES in 4, duration of use	
5. Use of animal proteins for feeding of ruminants ?	YES ☐ NO ☐
a) If YES in 5, plan of manufacture	
b) If YES in 5, proprietary name	
c) If YES in 5, composition	
d) If YES in 5, duration of use	
6. Are there in the holding animal proteins for feeding other species (pigs, poultry) ?	

Part III : Perspective epidemiological inquiry – Spreading of infection

Record in the following Table information pertaining to possible spreading of infection from the affected holding.

1. Recent movements of animals off the holding ?	YES ☐ NO ☐
a) If YES in 1, where to ?	
b) If YES in 1, when ?	
c) If YES in 1, how many ?	
d) If YES in 1, which (ear tags) ?	
2. Recent slaughter of animals from the holding ?	YES ☐ NO ☐
a) If YES in 2, when ?	
b) If YES in 2, how many ?	
3. Were their by products used for the Production of feed ?	YES ☐ NO ☐
a) If YES in 3, in which processing plan ?	
b) If YES in 3, is the processing plan approved (Reg.(EC) No 1774/2002) ?	
4. Recent deaths of animals in the holding ?	YES ☐ NO ☐
a) If YES in 1.4, was a diagnosis set / which ?	
b) If YES in 1.4, when ?	
c) If YES in 1.4, how many ?	

(Name of veterinarian)

.....

PROGRAMME FOR THE SURVEILLANCE AND ERADICATION OF BOVINE SPONGIFORM ENCEPHALOPATHY (BSE) PROPOSED BY GREECE FOR THE YEAR 2009

Standard submission requirements

1. Identification of the programme

Member State: Greece
Disease: BSE (monitoring in bovine animals)
Year of implementation: 2009
Reference number: 258681/31-03-2008
Contact Person:
Dept. of Infectious Diseases (Animal Health Directorate)
S. Doudounakis tel: 0030 210 8836420 / 8835420
fax: 0030 210 2125719, e-mail: vetserv@ath.forthnet.gr

Date of Transmission to the E. Commission : ?? April 2008

2. Description of the Programme
see: "BSE Progr. 2009"

3. Description of the epidemiological situation of the disease
see Annex A

4. Measures included in the programme
see: "BSE Progr. 2009"

4.1 Central Authority
Animal Health Directorate, Directorate General of Veterinary Services, Ministry of Rural Development and Food

4.2 Geographical and administrative regions where the programme is implemented
Entire the country. But certain remote islands have been excluded from the testing of samples originating from both animals slaughtered for human consumption and not slaughtered for human consumption.

4.3-4.4 Registration of holdings/identification of animals
Individual ear tag/central data base with animals–holdings, operational throughout the country.

4.5 Measures in place as regards the notification of the disease
see: "BSE Progr. 2009"

4.6 Monitoring

4.6.1 Monitoring in bovines animals

	No of tests (by estimate)
Animals referred to in Annex III, Chapter A, Part I points 2.1, 3 and 4 to Reg (EC) 999/2001	**6.000**
Animals referred to in Annex III, Chapter A, Part I point 2.2 to Reg (EC) 999/2001	**34.000**

4.7 Eradication

4.7.1 Measures following confirmation of a BSE case (in Bovines)
see: "BSE Progr. 2009" (part 7)

4.7.1.1 Description
see: "BSE Progr. 2009" (part 7)

4.7.1.2 Summary table

	Estimated number
Animals to be killed according to the requirements of Annex VII, Chapter A, point 2.1 to Reg (EC) 999/2001	**1500**

5. Costs

5.1 Detailed analysis of the costs
see: "BSE Progr. 2009" (part 10)

5.2 Summary of the costs

5.2.1 BSE testing (by estimate)

5.2.1.1 Rapid tests

Purchase of rapid tests	Type	No of tests	Cost of Unit in € (average per sample)	Total cost in €	Community co-financing requested (Yes/No)
Animals referred to in Annex III, Chapter A, Part I, points 2.1 , 3 and 4 of Reg (EC) 999/2001	Bio-Rad (TeSeE)	6.000	15,03	**90.180,00**	YES
Animals referred to in Annex III, Chapter A, Part I, point 2.2 of Reg (EC) 999/2001	Bio-Rad (TeSeE)	34.000	15,03	**511.020,00**	YES
Totals		**40.000**		**601.200,00**	

5.2.5.1 Compulsory Slaughter

	Estimated number	€ per animal	Total cost in €	Community co-financing requested (Yes/No)
Animals to be killed according to the requirements of Annex VII, Chapter A, point 2.1 of Reg (EC) 999/2001	1.500	1.000,00	**1.500.000,00**	YES

E

HELLENIC REPUBLIC
MINISTRY OF RURAL DEVELOPMENT & FOOD
DIR. GENERAL OF VETERINARY SERVICES
ANIMAL HEALTH DIRECTORATE
DEPT. OF INFECTIOUS DISEASES

Address : 2 Acharnon St.
10176 Athens , Greece
Tel No : 0030-210-8836420
Fax : 0030-210-2125719
E-mail : vetserv@ath.forthnet.gr

3 April 2008

BREEDING PROGRAM FOR THE DETERMINATION OF RESISTANCE AGAINST TSEs IN OVINE ANIMALS PROPOSED BY GREECE FOR THE YEAR 2009

Standard submission requirements

1. Program identity

Member State: Greece
Disease : TSEs (breeding program for the determination of resistance against TSEs in ovine animals)
Year of implementation : 2009
Contact Person :
Dept. of Infectious Diseases (Animal Health Directorate)
S.Doudounakis, (tel : 0030 –210 – 8836420, fax : 0030 210 2125719,
e-mail: vetserv@ath.forthnet.gr)

Date of Transmission to the E. Commission : April 2008

2. Description of the Program

2.1 Introduction

The breeding program for the determination of TSE resistant sheep practically makes part of the TSE monitoring/eradication program in small ruminants and its direct / short term objective is the examination of a sufficient number of samples collected

from sheep kept in pure bred holdings for the determination of their genotype as regards TSE resistance.
Animals diagnosed, this way to carry both, or at least one ARR allele will be used for:

- The replacement of sheep culled in the framework of Scrapie eradication measures in accordance with the measures provided in Reg. 999/2001 (direct application).

- The establishment of an initial sheep population of known genotype that will be used as ``starting material`` for the creation of Scrapie – resistant flocks (future prospect, to be considered after the first year of implementation).

2.2 Services implementing the programme

For the purposes of implementing the program the Services involved and their responsibilities and competence shall be as follows:

2.2.1 **The Department of Infectious Diseases**, Animal Health Directorate, Greek Ministry of Rural Development and Food (MRDF), shall:

- Co-ordinate and manage the program throughout the country, as regards both specific provisions thereof and in its entirety.
- Collect and process summary data obtained in the framework of the program, at national level and inform the competent services of the European Commission as regards its implementation.
- Create the appropriate legal basis for the implementation of the measures laid down in the program.
- Secure and allocate funds and resources required for the implementation of the program.
- Organize training courses, addressed to the personnel of the services involved with the programs' implementation, providing adequate information as well as all clarifications required for the program's appropriate implementation.

2.2.2 The Department D' Incomes of animal production Directorate, Greek Ministry of Rural Development and Food (MRDF), shall:

2.2.2 **The Regional (Prefecture) & Local Veterinary Services**, which shall:

- Carry out an initial estimation of the sanitary status of the holdings participating in the breeding program based on clinical inspection, previous disease history as well as specific diagnostic tests should they be necessary.
- Collect and dispatch appropriate ovine samples (blood or other tissue, according to the method used) to the competent laboratories conducting genotype tests under the supervision of the competent National Reference Laboratory for the determination of their genotype as regards TSE resistance. In all cases samples will be accompanied by a sample collection form in compliance with Annex .
- Conduct appropriate identification of all ovine animals sampled for genotyping
- Cooperate with other services/organizations participating in the program with respect to the creation and surveillance of the local database that will contain the data required in the framework of the program as well as the provision of

relevant information to small ruminant breeders interested in the purchase of ovines of a particular genotype as regards Scrapie resistance.
- Supervise appropriate implementation of measures following the initial genotyping within the holdings participating in the programmed by conducting regular (every 4 months) as well as exceptional inspections.
- Organize information campaigns addressed to veterinarians, breeders' associations and all other parties involved with the program, about its objectives, the content and the measures provided therein.

2.2.3 The Service/organization responsible for the creation and regular update of the database containing all data referring to the holdings participating in the program

A central data base comprising all holdings and animals participating in this program in combination with uniform individual electronic identification and registration will operate at central level (D.G. of Veterinary Services) adjusted to the "conventional" data base already in place (in accordance with relevant Community Legislation in force).

Awaiting implementation of this activity the following measures shall be implemented:

Permanent identification of animals sampled for genotyping will be carried out (transponder bolus) along with any other present or future identification (e.g. ear tags)

The competent Regional (Prefecture) Veterinary Service or other competent authority /organization appointed by it (e.g. breeders associations, services involved in geneting improvement programs or managing high genetic quality flocks e.t.c.) shall keep a written record of all flocks-animals participating in the program in simple spread sheets as figure in Annex .

This way a local archive will be created at prefecture level to serve local needs until a central data base is created to allow incorporation of all relevant data.

2.2.4 The National Reference Laboratory, as follows:

For the purpose of implementing the present program the following laboratory is designated as National Reference Laboratory for genotyping:

The Veterinary Laboratory of Larisa MRDF (which is also the NRL for TSE rapid tests) for approved BSE rapid tests .

Contact person	: Dr Helen Koutsoukou
Address	: 6th km of Larisa – Trikala Highway 411 10 Larisa, Greece
Telephone	: 0030 2410 617980 / 617981
Fax	: 0030 2410 617982
E-mail	: vetlab @otenet.gr

Competence and obligations

The National Reference Laboratory is charged with the supervision of genotyping tests carried out in approved/appointed laboratories. Its duties include :

- Control / management of the reagents purchased for genotype testing

- Accreditation of the correct implementation of the diagnostic examinations for genotyping.

- Close surveillance of the international scientific developments in the field of genotype diagnosis as well other related facts (e.g. level of resistance, possible genetic features associated with particular genotypes e.t.c.) in order to propose suitable amendments/modifications of the program in the course of its implementation, should they be necessary.

- The provision of information / clarifications, particularly with respect to technical items related to the program for all parties involved.

2.3 Activities in the framework of the program

2.3.1 Genotyping of all rams

All healthy rams of age minor to 5 years will be genotyped to individuate the homozygous ARR/ARR.
The slaughter of such animals is prohibited
Those animals will be kept for breeding in the flocks that are kept under restriction do to clinical founding of a scrapie case. That will permit the production of young animals having the possibility to be slaughtered.

2.3.2 Selection of flocks that will participate in the program /geographic location
Participation of flocks to the program is compulsory.

A flock will participate in the program under the following conditions:

a) The flock comprises purebred sheep
b) Animals bear a *uniform* electronic identification.
c) The flock has a satisfactory sanitary status and is not subject to restrictive measures due to sanitary problems. To this end the competent Regional Veterinary Authority shall conduct a clinical or even laboratory investigation of the holding in order to determine whether it should be included in the program.
d) The owner of the holding, as well as the authority/organization charged with its supervision (e.g. holdings already participating in breeding program) are fully aware of their responsibilities and duties in the framework of the programs activities.

2.3.3 Initial sampling for genotyping

Sampling is carried out on all sheep on the holding (type of sample determined according to the method used by the competent laboratory) and samples are sent for genotype test.

Upon sampling identification of all sheep sampled is carried out by means of microchip, irrespective already existing identification in place.

2.3.4 Measures following results of genotyping- Initial target

Rams
Rams carrying one or two VRQ alleles must be slaughtered or castrated within 6 months following genotyping results. Such animals may leave the holding only for the purpose of slaughter.
Instructions are given to the owner to keep as reproduction animals rams carrying 2 or at least one ARR allele.

Ewes
Ewes carrying one or two VRQ alleles animals may leave the holding only for the purpose of slaughter (relevant instructions are given to the owner to accelerate their removal from the holding by slaughter).

Introduction of new sheep in the holding
Only the following sheep (rams or non pregnant ewes) may be introduced in a holding participating in the program:

- Sheep originated from holdings participating in the program from which or VRQ allele carriers have been removed.

- Sheep that were subject to individual genotype testing and are known to be non – VRQ

A clear recommendation is given to the owners to prefer rams/ewes carrying at least one ARR allele (ideally 2)

Initial target
The program's objective (for this first year of implementation) is to create VRQ free holdings with known ARR /- (non VRQ) animals or ARR/ARR animals (replacement of animals culled in Scrapie affected flocks).

Note : in case the frequency of ARR sheep within the holding is very low (less than 25%) the competent regional authority may decide to interrupt its participation to the program or modify measures to be applied following a favorable opinion of the central service.

2.4 Measures following the completion of initial target

Each one of the holdings participating in the program following genotyping determination will receive regular inspections every 4 months from the competent regional veterinary authority (as well as exceptional inspections, should they be necessary) in order to confirm compliance with the programs' provisions. During these inspections all sheep that are detected within the holding and do not bear the particular electronic identification are sampled for genotype determination.

Following the results of genotyping all VRQ carriers shall be sent immediately for slaughter *unless the owner can provide satisfactory evidence that they were born within the holding*. In case there is evidence that the presence of VRQ carriers is due to non-compliance of the holdings owner the competent regional authority may decide to interrupt its participation to the program.

2.5 Future prospects
The initial target is expected to be reached within 2008 for all participating holdings and will form the substrate for the next phase of the program (4^{nd} year) that will

impose more sophisticated measures on the holdings in order to increase the rate of ARR sheep (e.g. exclusive use of ARR/ARR or ARR/- (non-VRQ) rams e.t.c.)

3. Description of the epidemiological situation of the disease

In the course of 2003 a total no of 50 outbreaks were detected while an additional number of 17 holdings diagnosed with Scrapie before 2003 remain under official supervision (see also TSE monitoring / eradication program in ovines/caprines).

As regards genotyping results, apart from genotyping upon Scrapie affected ovines, investigations carried out during 2002 and 2003 upon sheep of certain breeds revealed the following results :

2002 : Genotyping results by breed

Breed	***No of holdings sampled***	***Total heads***	***Total no of samples examined***	***% ARR/ARR***
Chiou	*4*	*6.792*	*37*	*5,4*
Katsika	*2*	*1.070*	*28*	*32,1*
Kalaritiko	*3*	*982*	*27*	*18,5*
Skopelou	*4*	*165*	*19*	*10,5*
Argous	*4*	*749*	*21*	*14,3*
Zakinthou	*3*	*534*	*22*	*9,1*
Piliou	*7*	*191*	*32*	*21,9*
Karamaniko	*1*	*100*	*11*	*9,1*
Kozanis	*1*	*300*	*4*	*0*
Florinas	*2*	*562*	*15*	*33,3*
Kimis	*3*	*175*	*15*	*40,6*

***2002 :** Accumulative genotyping results*

Genotype	***No of samples***	***Percentage***
ARR/ARR	*41*	*17,7%*
ARR/ARQ	*89*	*38,5%*
ARR/ARH	*14*	*6,1%*
ARR/AHQ	*7*	*3,0%*
ARR/VRQ	*1*	*0,4%*
ARQ/ARQ	*49*	*21,2%*
ARQ/ARH	*10*	*4,3%*
ARQ/AHQ	*12*	*5,2%*
AHQ/AHQ	*5*	*2,2%*
ARQ/VRQ	*2*	*0,9%*
Total	***231***	***100%***

2003 : *Genotyping of randomly selected sheep in 2003 (Genetic Station of Kardiτsa)*

Serial No	Lab Code	Ear tag	Breed	Sex	CODON			Genotype
					136	154	171	
1	K1	900	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
2	K2	844	Karagouniko	♂	AA	RR	RX/YY	ARR/ARQ
3	K3	800	Karagouniko	♂	AA	RR	YY/RR	ARR/ARR
4	K4	820	Karagouniko	♂	AA	RR	YY/RR	ARR/ARR
5	K5	863	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
6	K6	27	Karagouniko	♂	AA	RR	YY/RR	ARR/ARR
7	K7	28	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
8	K8	828	Karagouniko	♂	AA	RR	YY/RR	ARR/ARR
9	K9	1	Karagouniko	♂	AA	RR	YY/RR	ARR/ARR
10	K10	961	Karagouniko	♂	AV	RR	YYXX	ARQ/VRQ
11	K11	866	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
12	K12	838	Karagouniko	♂	AA	RR	YY/RX	ARR/ARQ
13	K13	2600	Karagouniko	♂	AA	RR	YY/RX	ARR/ARQ
14	K14	835	Karagouniko	♂	AA	RR	YY/RX	ARR/ARQ
15	K15	212	Karagouniko	♂	AV	RR	YY/RX	ARR/VRQ
16	K16	779	Karagouniko	♂	AA	RH	YY/RX	ARR/AHQ
17	K17	26	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
18	K18	25	Karagouniko	♂	AV	RR	YY/RX	ARR/VRQ
19	K19	206	Karagouniko	♂	AA	RR	YYRX	ARR/ARQ
20	K20	30	Karagouniko	♂	AA	RH	YY/RX	ARR/AHQ
21	K21	855	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
22	K22	2582	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
23	K23	1271	Karagouniko	♂	AA	RR	YY/RX	ARR/ARQ
24	K24	778	Karagouniko	♂	AA	RR	XX/YY	ARQ/ARQ
25	K25	1325	Karagouniko	♂	AA	RH	YY/XX	ARQ/AHQ
26	K26	31	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
27	K27	29	Karagouniko	♂	AA	RR	YY	
28	K28	74	Karagouniko	♂	AA	RH	YY/RX	ARR/AHQ
29	K29	6	Karagouniko	♂	AA	RR	XX/YY	ARQ/ARQ
30	K30	2536	Karagouniko	♂	AA	RR	XX/YY	ARQ/ARQ
31	K31	859	Karagouniko	♂	AA	RR	YY/RR	ARR/ARR
32	K32	856	Karagouniko	♂	AV	RR	YY/XX	ARQ/VRQ
33	K33	891	Karagouniko	♂	AA	RR	RX/YY	ARR/ARQ
34	K34	2564	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
35	K35	972	Karagouniko	♂	AA	RR	YY/XX	ARQ/ARQ
36	K36	1322	Karagouniko	♂	AA	RR	XY/XX	ARQ/ARQ
37	K37	921	Karagouniko	♀	AV	RR	YY/RX	ARR/VRQ
38	X38	94	Chios	♂	AA	RR	YY/XX	ARQ/ARQ
39	X39	34	Chios	♂	AA	RR	YY/XX	ARQ/ARQ
40	X40	28	Chios	♂	AA	RH	YY/RX	ARR/AHQ
41	X41	82	Chios	♂	AA	RR	YY/RX	ARR/ARQ
42	X42	58	Chios	♂	AA	RR	YY/RX	ARR/ARQ
43	X43	36	Chios	♂	AA	RR	YY/RX	ARR/ARQ

4. Measures in the framework of the program

see : (2) description of the program

4.1 Central Authority

Animal Health Directorate and KAFE directorate (Directorate General of Veterinary Services , Ministry of Rural Development and Food)

4.2 Geographical and administrative regions where the program is implemented

All prefectures of Greece, voluntary participation, particularly encouraged for regions where Scrapie outbreaks were detected during the last years and Scrapie affected flocks remain under restriction.

4.3-4.4 Registration of holdings/ identification of animals

A central data base comprising a registrar of all small ruminant holdings in being constructed at the moment, in compliance with relevant community legislation while a uniform individual ear tagging for all animals represents a direct future prospect.

In the framework of the program, apart from standard identification, exclusive identification shall be provided for sheep participating in genotyping procedure.

4.5 Measures in place as regards notification of the disease

See *Scrapie program as well as paragraph 2.3.1 of* the genotyping program description (2) establishing basic sanitary requirements for flocks to participate to the genotyping program

4.6-4.7 / Breeding program (Monitoring – Eradication)

Summary table

	Estimated no of tests
Ewes to be genotyped under the framework of a breeding program as established in Com. Dec. 2003/100/EC	***44.000***
Rams to be genotyped under the framework of a breeding program as established in Com. Dec. 2003/100/EC	***6.000***

5. Total Cost of genotyping

Summary of the costs

Genotyping

	Specification (Type)	**No of units**	**Cost of Unit in € (per sample , by estimate)**	**Total amount in €**	**Community funding requested (Yes/No)**
Determination of genotype of animals in the framework of a breeding program as established in Com. Dec. 2003/100/EC	Method : (to be determined)	50.000	***14***	***700.000.***	**YES**
Total		**50.000**		**700.000**	

Identification / data base

	Specification (Type)	No of units	Cost of Unit in €	Total amount in €	Community funding requested (Yes/No)
Identification of animals (individual)	Method : (microchip)	50.000	**0.3 (per animal by estimate)**	**15.000**	YES
Identification recognition equipment (scanners e.t.c.)	Accompanying electronic devices (scanners etc)	300	**300 average by astimate)**	**90.000**	YES
Software development			**60.000 (by estimate)**	**60.000**	YES
Total				**165.000**	

Annex ; . Ovine Genotyping sample consignment form in use for the TSE breeding program *

FROM: (Authority)..... Person in charge: ..... TO: .....
.....(Prefecture Code.....) Signature .....
Tel no ....
Date of sampling ....

Address of the holding..... Code number of the holding/ owner .....

Eartag number	Microchip no	Sex	Breed	Sample signaling	Genotyping results

Date of genotyping results..... Person in charge..... Signature .....

* and minimum data to be kept for holdings participating in the Scrapie genotype determination program(at local level as well as at central level once the central data base is operational)

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HELLENIC REPUBLIC
MINISTRY OF RURAL
DEVELOPMENT AND FOOD
DIR.GENERAL OF VETERINARY SERVICES
ANIMAL HEALTH DIRECTORATE
DEPT. OF INFECTIOUS DISEASES
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April 2008

MONITORING AND ERADICATION PROGRAMME FOR OVINE AND CAPRINE TRANSMISIBLE SPONGIFORM ENCEPHALOPATHIES (TSEs) PROPOSED BY GREECE FOR THE YEAR 2009

ATHENS

APRIL 2008

1. INTRODUCTION

TSEs monitoring and eradication programme in sheep and goat flocks for 2009 will involve:

- Testing of a random sample of ovine and caprine animals over 18 months of age slaughtered for human consumption as well as a sample of ovine and caprine animals over 18 months of age that died (fallen animals). Brain tissues from the animals included in the sample will be tested by means of approved rapid tests and appropriate confirmatory tests such as immuno - blotting (western blot) used for the diagnosis of TSEs. This monitoring programme will provide information in relation to the prevalence of TSEs in sheep and goat flocks as well as the geographical distribution of the disease.
- Genotyping of:

a) all sheep that have been tested positive for scrapie
b) a random sample of 600 sheep
c) all ovine animals within the infected herds.

- Eradication of TSEs outbreaks diagnosed during 2009 or previously by selective culling and increased surveillance measures upon infected flocks.

Tests to be used

For the implementation of the programme the approved rapid tests mentioned in Annex II, Chapter A, Part I will be used. The tests will be performed in the veterinary laboratories of the Ministry of Rural Development and Food (MRDF) at Larissa that is the National Reference Laboratory for rapid and immunological tests, at Ioannina, Athens and Thessaloniki.
Positive or inconclusive results from these tests will be verified using immuno - blotting performed at the National Reference Laboratory (Larissa).

Collection and analysis of the samples

Samples will be collected by official veterinarians at slaughterhouses or from holdings in the case of dead or sick animals. The samples will be sent each time to the competent laboratory and will be analysed using a rapid test or immuno-blotting. Since the carcasses would be detained, the results must be available as soon as possible so the detained carcasses to be released.

Cost of the programme

The total cost of this programme will include:

- costs of collection/dispatch of samples for rapid tests (animals slaughtered for human consumption or dead on the farm)
- costs of examination of samples by means of rapid tests and primary molecular testing
- costs of collection/dispatch of samples for genotyping (sheep that tested positive, sheep from infected holdings and as well as of a random sample of 600 sheep)
- costs of genotyping analysis of animals (sheep that tested positive, sheep from infected holdings and as well as of a random sample of 600 sheep)
- compensation of farmers for culling of animals

- financial support for the removal and destruction of dead animals in the holdings

A full descriptive budget figures in Annex III, Table II.

Duration of the programme

The programme will be implemented from 1st January to 31st December 2009.

2. EPIDEMIOLOGICAL SITUATION OF TSEs IN GREECE

The data available from the implementation of monitoring programme during 2002, 2003, 2004, 2005, 2006 and 2007 indicate that the incidence of scrapie in Greece is not very high. The number of animals tested during 2002, 2003, 2004, 2005, 2006 and 2007 is presented in Annex I, Chapter I.

3. DEFINITIONS

For the purposes of this programme the following definitions shall apply:

a) **TSE in Small Ruminants**: a transmissible spongiform encephalopathy case detected in an ovine or caprine animal following a confirmatory test for abnormal PrP Protein.
b) **Scrapie case**: a transmissible spongiform encephalopathy confirmed case in an ovine or caprine animal where a diagnosis of BSE has been excluded in accordance with the criteria laid down in the Community reference laboratory's technical handbook on TSE strain characterisation in small ruminants.
c) **Classical scrapie case**: a scrapie confirmed case classified as classical in accordance with the criteria laid down in the Community reference laboratory's technical handbook on TSE strain characterisation in small ruminants.
d) **Atypical scrapie case**: a scrapie confirmed case which is distinguishable from classical Scrapie in accordance with the criteria laid down in the Community reference laboratory's technical handbook on TSE strain characterisation in small ruminants.
e) **Passive surveillance**: the reporting of all animals suspected of being infected by a TSE and, where TSE cannot be excluded by clinical investigation, the laboratory testing of such animals.
f) **Active surveillance**: the testing of animals not reported as suspected of being infected by a TSE, such as emergency slaughtered animals, animals with observations at ante mortem inspection, fallen stock, healthy slaughtered animals and animals culled in connection with a TSE case, in particular in order to determine the evolution and prevalence of TSE in a country or region thereof.
g) **Competent authority:** Directorate General of Veterinary Services at the Greek Ministry of Rural Development and Food at national level or the Prefecture Veterinary Service at Prefecture level.
h) **Ovine or caprine animal suspected of being infected by TSE (suspect animal): a)** live slaughtered or dead animals, which show or have shown neurological or behavioural disorders or a progressive deterioration of the general condition linked to impairment of the central nervous system and for which the information gathered on the basis of a clinical examination, response to treatment, apost-mortem examination or ante or post mortem laboratory analysis do not allow an alternative diagnosis to be established.**b)** any ovine or caprine animal that has produced a positive or inconclusive result in a rapid test for the diagnosis of TSEs.

i) **Ovine and caprine animal infected by TSEs:** any animal in which TSE has been confirmed by histo-pathological examination or immuno-cyto-chemistry or demonstration of characteristic SAF fibrils by electron microscopy.
j) **Sampling:** the collection of samples, ensuring a statistically correct representation, from animals or their environment, or from products of animal origin, for the purpose of establishing a disease diagnosis, familial relationships, for health surveillance, or for the monitoring of the absence of microbiological agents or of certain materials in products of animal origin.
k) **Rapid tests:** the diagnostic techniques referred in Annex II, Chapter A, Part I, whose results become available within 24 hours.
l) **Confirmatory tests:** the specific tests referred in Annex II, Chapter A, Part II with which all the samples originated from suspect animals must be examined so the presence of TSEs can be confirmed or ruled out.
m) **Products of animal origin:** all products originating from or containing products originating from animals with in the meaning of directives 89/662/EEC or 90/425/EEC.
n) **Placing on the market:** any operation the purpose of which is to sell live animals or products of animal origin to a third party, in the Community, or any other form of supply against payment or free of charge to such third party or storage with a view to supply to such a third party.
o) **Holding:** any place in which animals, mentioned in this programme, are held, kept, bred, handled or shown to the public.

4. OBJECTIVES OF THE PROGRAMME

The objectives of the programme are:

4.1. The systematic monitoring of TSEs in ovine and caprine animals as well as the differentiation of the TSEs in ovine and caprine population with the use of the relevant diagnostic tests.

4.2. The eradication of TSEs outbreaks that will be detected during the implementation of the programme so as to prevent spreading of the disease as well as entry of the etiological agent in human and animal food chain.

5. SERVICES INVOLVED IN THE IMPLEMENTATION OF THE PROGRAMME

The services that are responsible for the implementation of the programme and their responsibilities and competence are the following:

5.1. The Department of Infectious Diseases, Animal Health Directorate, General Directorate of Veterinary Services, Ministry of Rural Development and Food (MRDF), shall:

a) Co-ordinate and manage the programme throughout the country, as regards both specific provisions thereof and in its entirety.
b) Collect and process all data obtained in the framework of the programme, at national level and inform the competent services of the Europian Commission as regards it's implementation.
c) Create the appropriate legal basis for the measures to be implemented in accordance with the programme.
d) Secure and allocate funds and resources required for the implementation of the programme.
e) Keep for seven years records of:
   i. The number of sheep and goats subject to movement restrictions due to TSEs suspicion.

ii. The number and results of clinical and epidemiological investigations carried out on ovine and caprine animals in relation to TSEs suspicions.
iii. The number and results of laboratory tests carried out on ovine and caprine animals for which a potential TSEs infection could not be ruled out.
iv. All data required for the evaluation of the programme's implementation.

f) Organize training courses, addressed to the personnel of the services involved in programme's implementation, providing the latest knowledge pertaining to diagnosis, interpretation of laboratory results and epidemiology of the disease.

5.2.The Regional & Local Veterinary Services:

a) Are responsible for the implementation of monitoring and eradication of the TSEs programme throughout their region.
b) Collect and dispatch the appropriate brain tissue samples to the competent laboratories conducting diagnostic tests for the detection of the TSEs agent.
c) Collect and dispatch samples of blood from sheep of infected flocks for genotyping.
d) Carry out clinical examination of ovine and caprine animals prior to slaughter in order to prevent TSEs suspect animals from being slaughtered.
e) Supervise removal, identification and disposal of specific risk materials at the slaughterhouses.
f) Keep the data of animals dying on the holdings, supervise their removal and disposal and ensure collection and consignment of the appropriate brain tissue samples to the laboratories for the detection of the TSEs agent.
g) Issue the appropriate order/s for the implementation of all measures for the restriction of movement of animals and products of animals origin, foreseen in the programme, in case of TSEs suspicion or confirmation in a sheep or goats holding. The Department of Infectious Diseases, in Animal Health Directorate, MDRF, shall be informed for these actions.
h) Are responsible for the supervision of the implementation of all measures for the eradication of TSEs.
i) Conduct an epidemiological investigation upon confirmation of TSEs with a view to trace all animals epidemiologically linked to a TSEs case in compliance with the provisions of the national legislation in force.
j) Keep for seven years all the documents issued for the implementation of the programme as well as the documents for the results of the tests conducted, in the framework of the programme.
k) Organize information campaigns addressed to veterinarians, breeders' associations and all other parties involved in the implementation of the programme, about its objectives, the content and the measures foreseen for the eradication of the disease.

5.3.The National Reference Laboratory for TSEs, as follows:

5.3.1. The following laboratory is nominated as National Reference Laboratory for TSEs:

The Veterinary Laboratory of Larisa, MRDF, for approved TSEs rapid tests, confirmatory tests such as immuno-botting (western blot), primary molecular testing and genotyping.

Contact person: Dr. Helen Koutsoukou
Address : 6th km of Larisa – Trikala Highway
411 10 Larisa, Greece
Telephone : 0030 2410 617980 / 617981

Fax : 0030 2410 617982
E-mail : tsevetlab@hotmail.com, vetlab@otenet.gr

5.3.2. Competence and obligations of the National Reference Laboratory

The geographical areas falling within the scope of competence of the National Reference Laboratory are listed in Annex II, Chapter B.

The National Reference Laboratory is charged with the following duties:

a) Examine samples originated from ovine and caprine animals over 18 months of age slaughtered for human consumption or animals died in the holdings with one of the rapid tests mentioned in Annex II, Chapter A, Part I and informs in writing the dispatching Service on the results of these tests.
b) Examine all the samples collected from TSEs clinical suspect animals by means of appropriate tests, such as immuno-blotting (western blot).
c) Examine all positive samples that are dispatched from the Authorized Laboratories for TSEs by means of confirmatory tests, such as immuno-blotting (western blot).
d) Examine all the samples which are regarded as positive scrapie case by means of immune-blotting for differentiation classical scrapie from atypical scrapie.
e) Examine all the samples which are regarded as positive scrapie case by means of discriminatory test (CEA) for differentiation scrapie from BSE.
f) Determine the prion protein genotype:
   i. for each positive TSE case in sheep
   ii. in sheep of infected flocks
   iii. in a random sample of sheep (600 samples).
g) Recieve and check the reagents of rapid tests and distribute them to the Laboratories authorized for the diagnosis of TSEs.
h) Cooperate with the Laboratories authorized for the diagnosis of TSEs:
   i. for a uniform implementation of the diagnostic tests for the screening for TSEs,
   ii. for the correct implementation of the diagnostic tests for TSEs,
   iii. for the organization of ring trials with a view to ensure the ability and credibility of the Laboratories authorized for the diagnosis of TSEs,
   iv. for the organization of joint meetings of all Laboratories authorized for the diagnosis of TSEs.
i) Participate in ring trials among the National Reference Laboratories of the EU and cooperate with the EU Reference Laboratory for TSEs.
j) Be informed on international scientific developments in the field of diagnosis and control of TSEs and adapt its diagnostic tests and protocols accordingly.
k) Keep the TSEs infectious agents isolated or the tissues containing them, originating from confirmed TSEs cases.
l) Keep for seven years, all data pertaining to the tests carried out, in particular information on samples tested as well as photographs of Western Blots and updates the data base kept in the Animal Health Directorate, MRDF, about the tests carried out, regularly, on a weekly basis, and immediately in the case of positive or inconclusive results.
m) Cooperate with the Department of Infectious of Animal Health Directorate, MRDF, as well as the Regional Veterinary Services at all levels of the programme's implementation.

5.3.3. The **Authorized Laboratories** for TSEs diagnosis with the implementation of approved rapid tests.

For the purpose of this programme the following laboratories, are authorized for the implementation of TSEs rapid diagnostic tests:

a) The **State Veterinary Laboratory of Ioannina**, MRDF.
b) The **Institute for Foot-and-Mouth Disease & Exotic Diseases** of the Athens Center of Veterinary Institutions (ACVI), MRDF.
c) **The Laboratory of Virology** of the Thessaloniki Center of Veterinary Institutions (TCVI), MRDF.

The geographical areas falling within the scope of competence of the authorized laboratories are listed in Annex II, Chapter B.

The Authorized Laboratories for the diagnosis of TSEs with the implementation of rapid tests have the following responsibilities:

a) Examination of samples by means of approved rapid tests for the diagnosis of TSEs mentioned in Annex II, Chapter A, Part I for the diagnosis of TSEs and information, in writing, of the dispatching authority, on the results of the tests carried out.
b) Cooperation with the competent Regional Veterinary Authorities at all levels of the programme's implementation.
c) Preservation, for seven years, of all data pertaining to the tests carried out, in particular information on samples tested and updating of the data base kept in the Department of Infectious Diseases of Animal Health Directorate, MRDF, about the tests carried out, regularly, on a weekly basis, and immediately in the case of positive or inconclusive results.
d) In case of positive or inconclusive result of a rapid test, dispatch of the sample examined, to the competent National Reference Laboratory for further examination by means of appropriate methods.
e) Cooperation with the National Reference Laboratory in order to achieve uniform application of tests and interpretation of results.

5.3.4. The **Veterinary Centers, Institutes and Laboratories** under the MRDF, dealing with the diagnosis of ovine and caprine diseases, must:

a) Dispatch the appropriate samples to the National Reference Laboratory for TSEs for testing whenever they examine samples originating from ovine and caprine animals presenting neurological or behavioral disorders or a progressive deterioration of the general condition irrespective the establishment of a different diagnosis.
b) Keep for seven years, all the data referred to the examinations carried out and their results, upon samples originating from ovine and caprine animals for which a TSEs suspicion was established on the basis of clinical signs and history.
c) Submit, every three months, to the Department of Infectious Diseases of Animal Health Directorate in the Ministry of Rural Development and Food, a report on the examinations carried out and their results.

6. OVINE AND CAPRINE TSEs MONITORING PROGRAMME

Subject to examination for the detection of the TSEs agent are ovine and caprine animals of the follow classes:

6.1. Ovine and caprine animals slaughtered for human consumption

a) A random sample of ovine and caprine animals over 18 months of age or which have more than two permanent incisors erupted through the gum and which are slaughtered for human consumption shall be tested with one of the approved rapid tests for the diagnosis of TSEs mentioned in Annex II, Chapter A, Part I.
b) The age of the animals shall be estimated based on dentition, obvious signs of maturity or other reliable information.
c) The sampling shall be representative for each prefecture of the country and season of the year.
d) The sample selection shall be designed with a view to avoid the over-representation of any group as regards the origin, species, age, breed, production type or any other characteristic. Multiple sampling in the same flock shall be avoided, where possible.
e) The number of samples that shall be tested from every Prefecture of the country is presented in Annex III, Table I.
f) With respect to the number of healthy slaughterered ovine and caprine animals that will be sampled on a yearly basis, in case there are practical difficulties to reach the sample size, the competent authority may choose to replace a maximum of 50% of its sample size by testing dead ovine and caprine animals over the age of 18 months of the ratio of one to one and in addition the sample size mentioned in Annex III, Table I.

6.2. Ovine and caprine animals not slaughtered for human consumption

a) A random sample of ovine and caprine animals over 18 months of age or which have more than two permanent incisors erupted through the gum and which are have died or been killed, but which were not:
   i. killed in the framework of an epidemic, such as foot-and-mouth disease,
   ii. slaughtered for human consumption,
   shall be tested with one of the approved rapid tests for the diagnosis of TSEs mentioned in Annex II, Chapter A, Part I.
b) The age of the animals shall be estimated based on dentition, obvious signs of maturity or other reliable information.
c) The sampling shall be representative for each prefecture of the country and season of the year.
d) The sample selection shall be designed with a view to avoid the over-representation of any group as regards the origin, species, age, breed, production type or any other characteristic. Multiple sampling in the same flock shall be avoided, where possible.
e) The number of samples that shall be tested from every prefecture of the country is presented in Annex III, Table I.

NOTE
The Prefectures mentioned in Annex II, Chapter D are excluded for sending samples of the two categories mentioned above (par. 6.1 and 6.2). These Prefectures are excluded because of their geographical particularity (isolated islands) due to difficulties in communication with the mainland or of the very low sheep/goat population. It must be pointed out that the number of animals rearedin these Prefectures is less than 10 % of the total population of sheep and goats reared in the country.

6.3. Laboratory tests for the ovine and caprine tissues tested in the framework of monitoring programme.

a) Tissues from ovine and caprine animals sent for laboratory testing in the framework of the monitoring programme of TSEs in ovine and caprine animals from animals mentioned in paragraphs 6.1 and 6.2 shall be examined by a rapid test mentioned in Annex II, Chapter A, Part I.
b) When the result of the rapid test is inconclusive or positive, the tissues shall immediately be subject to confirmatory tests from those mentioned in Annex II, Chapter A, Part II(a) in the reference laboratory nominated for this purpose.
c) The confirmatory examination shall be carried out by immuno-blotting (western-blot).
d) If the result of the immuno-blotting is positive, the animal shall be regarded as a positive scrapie case.
e) All the samples which are regarded as positive scrapie case, as mentioned above, shall be examined by means of immuno-blotting for differentiation classical scrapie from atypical scrapie and by means of discriminatory test (CEA) mentioned in Annex II, Chapter A, Part III for differentiation scrapie from BSE.

6.4. Collection and transportation of samples

a) Samples due to be tested in the framework of ovine and caprine TSEs monitoring programme must be collected according to the instructions mentioned in Annex II, Chapter C.
b) The samples' container must be identified properly referring to animal identification and must be sent to the competent authorized laboratory for the diagnosis of TSEs. The samples must be accompanied with the document presented in Annex II, Chapter E with Part I duly completed.

7. OVINE AND CAPRINE TSEs MONITORING PROGRAMME ON ANIMALS SUSPECT OF TSEs INFECTION DUE TO THE PRESENCE OF CLINICAL SIGNS

7.1. Testing of TSEs suspect ovine and caprine animals

- Ovine and caprine animals showing clinical signs that lead to the suspicion of infection by TSEs must undergo the relevant sampling and examinations for the identification of infectious agent.
- In case that the suspected animal is alive the examination shall be performed after the killing of the animal upon an order issued by the regional competent authority.

7.2. Laboratory tests for the ovine and caprine tissues originated from suspect animals tested in the framework of monitoring programme

a) Tissues originated from TSEs suspect ovine and caprine animals shall be examined by immuno-blotting (western-blot).
b) Where the result is positive, the animal shall be regarded as positive scrapie case.
c) All the samples which are regarded as positive scrapie case, shall be subjected to further examinations for differentiation classical scrapie from

atypical scrapie and for differentiation scrapie from BSE as mentioned in paragraph 6.3.

8. MEASURES FORESEEN IN CARCASSES OF OVINE AND CAPRINE ANIMALS SLAUGHTERED FOR HUMAN CONSUMPTION AFTER THE COLLECTION OF BRAIN TISSUE SAMPLE FOR TSEs EXAMINATION

8.1. The carcasses of ovine and caprine animals slaughtered for human consumption and tested for TSEs does not receive the health marking provided for in Section I, Chapter III of Anex I to Regulation (EC) No 854/2004.

8.2. All parts of the body of an animal tested for TSEs including the hide shall be retained under official control after a written order from the inspector veterinarian until a negative result to the rapid test has been obtained, unless they are destroyed in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.

8.3. All parts of the body of an animal tested for TSEs that gave a negative result in a rapid test receive the health marking provided for in in Section I, Chapter III of Anex I to Regulation (EC) No 854/2004 and is permitted to be consumed after a written order from the inspector veterinarian.

8.4. Where an animal slaughtered for human consumption is found positive to the rapid test, all parts of its body including the hide shall be destroyed in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002 apart from the material destined for the laboratories.

8.5. All parts of the body of an animal tested for TSEs can be destroyed in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002, in case the results from the rapid test have been delayed more than four working days, due to technical reasons and the carcass is at risk to be damaged.

9. GENOTYPING

9.1. The prion protein genotype shall be determined for each positive TSE case in sheep.

9.2. Every TSE case found in resistant genotypes (sheep of genotypes which encode alanin on both alleles at codon 136, arginin on both alleles at codon 154 and arginin on both alleles at codon 171) shall immediately be reported to the Commission authorities. Where possible, such cases shall be submitted for strain-typing. Where strain-typing of such cases is not possible, the herd of origin and all other herds where the animal has been shall be subjected to enhanced monitoring with a view to find other TSE cases for strain-typing.

9.3. Except of positive TSE cases that will undergo genotyping, the prion protein genotype shall be determined in a random sample of sheep slaughtered or not for human consumption and tested with rapid tests in the framework of TSEs monitoring programme belonging to the categories mentioned in paragraphs 6.1 and 6.2 of the programme.

9.4. The number of sheep to be sampled in accordance with par. 9.3 shall be at least 600 and must be representative of the entire sheep population.

9.5. In case that genotyping of sheep sampled for rapid test examination is not possible an equivalent number of live animals of a similar age can be genotyped.

10. LOCATIONS WHERE THE OVINE AND CAPRINE TSEs MONITORING PROGRAMME WILL BE IMPLEMENTED

The monitoring of TSEs in ovine and caprine animals will be in force in the following locations:

a) In the slaughterhouses: In these locations monitoring of TSEs will be implemented in the framework of compulsory inspection of live animals prior-slaughter for human consumption. The task of this inspection is the observation of clinical signs that can arise the suspicion of existence of TSEs.

b) In the holdings as well as in the Centers where ovine and caprine animals are kept for experimental purposes.

In the holdings the monitoring programme is implemented in the framework of routine veterinary activities as, implementation of infectious diseases eradication programmes, vaccination, treating of sick animals, etc.

The veterinarians during the implementation of TSEs monitoring in the holdings shall:

i. Collect information about the history of the flock referring to the origin of animals kept in the flock and all diseases diagnosed in the flock.
ii. Conduct clinical examination of the animals in order to see if there are clinical signs that can raise the suspicion of TSEs existence.
iii. In case that there is a suspicion of TSEs in a flock the veterinarian collects the relevant samples from the suspect animals after their killing and sends them to the competent National Reference Laboratory for testing.
iv. Inform the owners of the flocks about the clinical signs, the pathogenesis as well as the epidemiology of TSEs.
v. Inform the owners of the flocks that TSEs are compulsory notifiable diseases as well as about the measures foreseen for the control of TSEs and the compensations in force.

c) In the Veterinary Institutions and Veterinary Laboratories, where the monitoring of TSEs takes place in the framework of the routine work for the diagnosis of animal diseases.

11. CONTROL AND ERADICATION OF TSE's IN OVINE AND CAPRINE ANIMALS

11.1. Measures in force in case of suspicion of existence of TSEs

The measures that will be imposed in sheep and goat flocks in case that a suspicion arises that one or more animals may be infected from the etiological agent of TSEs are temporary and remain in force till the results of the tests for the confirmation or rule out the suspicion to be known.

According to the location in which the suspicious animal was found the following measures will be applied:

11.2. Measures in the holdings

a) Placement of the holding under official isolation, prohibition of movements of live animals, ova and embryos on and off the holding.

b) In case there is evidence that the holding in question is not the holding in which the infection of the animal actually occurred the Regional competent authority may prohibit the movement of suspect animal(s) only.

c) In case there is evidences that the holding in which the suspect animal is kept is not the holding in which the infection of the animal had occurred the Regional competent authority may expand the restriction measures to other holdings depending from the collected epidemiological information.

d) Census and individual identification of all susceptible animals present on the holding during the time of TSE ssuspicion.
e) Clinical examination of the suspect animal(s), following the guidelines set out in Annex II Chapter F and completion of Parts I, II, III and IV thereof.
f) Killing of the suspect animal(s) and dispatch of samples to the competent Reference Laboratory to be tested as mentioned in paragraph 7.2.
g) Destruction of the carcass(es) of the suspect animal(s) in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.
h) Notification to the farmer, in writing, with regard to his/hers obligations.

11.3. Measures in the slaughterhouses

a) In case the suspicion of infection from a TSEs agent is raised for an animal during inspection prior to slaughter the follow measures will be applied:
   i. Prohibition of slaughter for human consumption of the suspect animal and all other animals from the same holding that are destined to be slaughtered at the same time.
   ii. Clinical inspection of the suspect animal(s) according to the guidelines presented in Annex II, Chapter F and completion of Parts I, II, III and IV thereof.
   iii. The suspect animals(s) shall be killed and the samples collected will be sent to the competent Reference Laboratory to be tested as mentioned in paragraph 7.2.
   iv. The carcass of the suspect animal(s) must be destroyed in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.
   v. Isolation of all other animals originating in the same holding at an appropriate place, to be decided by the competent regional veterinary service, until results of the TSEs tests are available.
   vi. Initiation of restrictive measures specified in paragraph 11.2 in the holding of origin as well as every other holding epidemiolocally linked to it.
b) In case the suspicion of infection from TSEs agent is raised on an animal s laughtered for human consumption following a positive result of a rapid test the follow measures shall be applied:
   i. The carcass of the suspect animal(s), including the hide, must be destroyed in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002.
   ii. The holding of origin shall be traced back and all the measures foreseen in paragraph 11.2. will be applied accordignly.
   iii. Disinfection of sheltered and outdoor premises of the slaughterhouse, utensils, objects and equipment by means of approved disinfectant. The use of a disinfectant containing 20.000 ppm of free chlorine is recommended.

12. Measures applied in case of TSEs confirmation

12.1. Measures in case of confirmation of BSE in an ovine and caprine animal

In case of confirmation of BSE, in an ovine or caprine animal, following the strain typing of a confirmed TSEs case, the following measures will be applied:

12.1.1. Measures in the holdings

a) An epidemiological inquiry must be conducted according to the guidelines Annex II, Chapter G in order to identify:
   i. all ruminants other than ovine and caprine animals on the holding of the animal in which the disease was confirmed,
   ii. in so far as they are identifiable, the parents and in the case of females

all embryos, ova and the last progeny of the female animal in which the disease was confirmed,

iii. all other ovine and caprine animals on the holding of the animal in which the disease was confirmed in addition to those referred to in the second point,

iv. the possible origin of the disease and the identification of other holdings on which there are animals, embryos or ova which may have become infected by the BSE agent or been exposed to the same feed or contamination source,

v. 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.

b) Killing and destruction, in accordance with Article 4(2)(a),(b) of Regulation (EC) No 1774/2002, of all animals, embryos and ova that identified by the epidemiological inqiry referred to above points ii), iii) and iv).

c) Destruction of contaminated feedingstuffs.

d) Disinfection of sheltered and outdoor premises of the holding, utensils, objects and equipment by means of an approved disinfectant. The use of a disinfectant containing 20.000 ppm of free chlorine is recommended.

e) The conditions, as regards the animals that may be introduced to the holding(s), ovine germinal products that may be used in the holding(s) and the movements of the animals from the holding(s), set out in paragraph 12.2.1 points (e), (f) and (g) will be applied to the holding(s).

12.1.2.Measures in the slaughterhouses

In case of confirmation of BSE, after the strain typing of the infectious agent, in an ovine or caprine animal, that was slaughtered for human consumption the follow measures will be applied:

a) Identification of the holding of origin of the infected animal(s) and application of the measures foreseen in paragraph 12.1.1.

b) Disinfection of sheltered and outdoor premises of the holding, utensils, objects and equipment by means of an approved disinfectant. The use of a disinfectant containing 20.000 ppm of free chlorine is recommended.

12.1.3 Data submission

For any case of confirmation of BSE, after the typing of the infectious agent, in an ovine or caprine animal, the regional competent authority must inform the Department of Infectious, Animal Health Directorate, Ministry of Rural Development and Food, for all the data referred to clinical, laboratory, and epidemiological findings as well as copies of all the documents relevant to the outbreak.

12.2. Measures in case of confirmation of Classical Scrapie

In case of confirmation of Classical Scrapie, in an ovine or caprine animal, the following measures will be applied:

12.2.1.Measures in the holdings

a) An epidemiological inquiry must be conducted according to the guidelines laid down in Annex II, Chapter G in order to identify:

i. all ruminants other than ovine and caprine animals on the holding of the

animal in which the disease was confirmed,

ii. in so far as they are identifiable, the parents and in the case of females all embryos, ova and the last progeny of the female animal in which the disease was confirmed,

iii. all other ovine and caprine animals on the holding of the animal in which the disease was confirmed in addition to those referred to in the second point,

iv. the possible origin of the disease and the identification of other holdings on which there are animals, embryos or ova which may have become infected by the BSE agent or been exposed to the same feed or contamination source,

v. 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.

b) i. Killing and complete destruction of all animals, embryos and ova identified by the inquiry referred to points a(ii)and a(iii) above
or

ii. Killing and complete destruction of all animals, embryos and ova identified by the inquiry referred to points a(ii)and a(iii) above with the exception of:

- breeding rams of the ARR/ARR genotype,
- breeding ewes carrying at least one ARR allele and no VRQ allele genotype and, where such breeding ewes are pregnant at the time of the inquiry, the lambs subsequently born, if their genotype meets the requirements of this subparagraph,
- sheep carrying at least one ARR allele which are intended solely for slaughter,
- sheep and goats been less than three months old which are intended to be moved from the holding to go directly for slaughter for human consumption,
- sheep carrying no ARR and no VRQ allele genotype which are intended solely for destruction after five breeding years,
- goats which are intended solely for destruction after five breeding years.

In case the infected animal had been introduced from another holding the competent Regional Authority may decide, based on the history of the case, to apply eradication measures in the holding of origin in addition to or instead of, the holding in which the infection was confirmed. In the case of land used for common grazing by more than one flock, the competent Regional Authority may decide to limit the application of those measures to a single flock, based on a reasoned consideration of all epidemiological factors.

c) Collection of samples from all ovine and caprine over 18 months or which have a permanent incisor erupted through the gum and which are killed for destruction in accordance with the provisions of above point (b), shall be tested based on the selection of a simple random sample, in accordance with the sample size indicated in the following table.

Number of animals culled (>12 months)	Minimum sample size
70 or less	all eligible animals
80	68
90	73
100	78
120	86
140	92
160	97
180	101

Number of animals culled (>12 months)	Minimum sample size
200	105
250	112
300	117
350	121
400	124
450	127
500 or more	150

d) The prion protein genotype of ovine animals, up to a maximum of 50, killed and destroyed in accordance with point b(i) shall be determined.

e) Only the following animals may be introduced to the holdings where destruction has been undertaken in accordance with the eradication measures mentioned above.
   i. male sheep of the ARR/ARR genotype,
   ii. female sheep carrying at least one ARR allele and no VRQ allele genotype,
   iii. caprine animals, provided that:
      - no breeding animals other than those referred to points (i) and (ii) are present on the holding
      - thorough cleaning and disinfection of all animal housing on the premises has been carried out following destocking

f) Only the following ovine germinal products may be used in the holding(s) where destruction has been undertaken in accordance with the eradication measures mentioned above
   - semen from rams of the ARR/ARR genotype
   - embryos carrying at least one ARR allele and no VRQ allele genotype

g) The movements of the animals from holding(s) are subject to the following conditions:
   i. movement of sheep carrying the ARR/ARR genotype shall not be subject to any restriction,
   ii. sheep carrying only one ARR allele genotype may be moved from the holding only to go directly for slaughter for human consumption or destruction,
   iii. ewes carrying one ARR allele and no VRQ allele genotype may be moved to other holdings kept under restriction following the application of measures in accordance with point b(ii),
   iv. lambs and kids been less than three months old which are intended to be moved from the holding to go directly for slaughter for human consumption,
   v. sheep carrying no ARR allele and no VRQ allele genotype which are intended solely for destruction after five breeding years,
   vi. lambs and kids, if the regional competent authority so dedides, may be moved to another holding solely for the purposes of fattening prior to slaughter.The holding of destination shall not contain any ovine or caprine animals other than those being fattened prior to slaughter and shall not dispatch live ovine or caprine animals to other holdings, except for direct slaughter,
   vii. caprine animals may be moved provided that the holding is subjected to intensified TSE monitoring, including the testing of all caprine animals which are over the age of 18 months and:
      - are slaughtered for human consumption at the end of their productive lives
      - have died or been killed on the holding

h) The restrictions referred to points 12.2.1(e), (f) and (g) shall continue to apply to the holding for a period of two years from:
   i. the date of attainment of ARR/ARR genotype status by all ovine animals of the holding or
   ii. the last date when any ovine or caprine animal was kept on the premises or
   iii. in the case of point g(vii), the date when intensified TSEs monitoring was initiated or
   iv. The date when all breeding rams on the holding are of ARR/ARR genotype and all breeding ewes carry at least one ARR allele and no VRQ allele genotype, provided that TSE testing of all ovine animals slaughtered for human consumption and all ovine animals which have died or been killed on the holding over the age of 18 months is carried out during this period with negative results.

12.2.2.Measures in the slaughterhouses

In case of confirmation of scrapie, in an ovine or caprine animal, that was slaughtered for human consumption the following measures will be applied:

a) Identification of the holding of origin of the infected animal(s) and application of the measures foreseen in paragraphs 12.2.1.
b) Disinfection of sheltered and outdoor premises of the slaughterhouse, utensils, objects and equipment by means of an approved disinfectant. The use of a disinfectant containing 20.000 ppm of free chlorine is recommended.

12.3. Measures in case of confirmation of Atypical Scrapie

In case of confirmation of Atypical Scrapie, in an ovine or caprine animal, for a period of two breeding years following the detection of the last Scrapie case, the following measures will be applied:

a) all ovine and caprine animals in the holding shall be identified,

b) the holding must be subject to intensified TSE monitoring for a two years period, including the testing of all ovine and caprine animals which are over the age of 18 months and slaughtered for human consumption and all ovine and caprine animals over the age of 18 which have died or been killed on the holding,

c) the prion protein genotype of all above mentioned ovine animals shall be determined,

d) the competent authority shall ensure that live ovine and caprine animals, embryos and ova from the holding are not dispatched to other Member States or third countries.

13. COMPENSATION OF THE FARMERS

- The compensation of the animals, which will be slaughtered for the eradication of TSEs must be paid to the farmers in a reasonable period after the slaughter of the animals.
- Before the slaughter of animals a committee will evaluate their life price and will propose the amount of compensation. A Veterinarian of Local Veterinary Service, an Officer of the Local Rural Development Service and a representative of farmers co-operative constitute the committee.
- The amount of compensation in no case can be greater than the price of the animals in the market.
- According to a bi-ministerial order the average price of compensation can not exceed the amount of 200 EURO (estimated average price=100 €).
- The farmers can be assisted by an amount no more than 25 Euro in order to move and destroy dead animals in the holding. In order this amount to be paid to the farmer the dead animal must be tested for TSEs.

14. EXCHANGE OF INFORMATION

The Directorate General of Veterinary Services, MRDF, undertakes to provide all the information and make a regular and full report to the Commission of the EU about the progress of the ovine and caprine TSEs monitoring programme.

MONITORING AND ERADICATION PROGRAMME FOR OVINE AND CAPRINE TRANSMISIBLE ENCEPHALOPATHIES (TSEs) PROPOSED BY GREECE FOR THE YEAR 2009

Standard submission requirements

1. Programme identity

Member State: Greece
Disease:TSEs (monitoring/eradication in ovine/caprine animals)
Year of implementation:2009
Reference number 258682/31-03-2008
Contact Person:
Dept. of Infectious Diseases (Animal Health Directorate)
S. Doudounakis tel: 0030 210 8836420 / 8835420
fax: 0030 210 2125719, e-mail: vetserv@ath.forthnet.gr
Date of Transmission to the E. Commission: 14 April 2008

2. Description of the Programme
see: "TSEs programme" 2009

3. Description of the epidemiological situation of the disease
see: "TSEs programme" 2009 Annex I

4. Measures in the framework of the programme
see: "TSEs programme" 2009 (sections 6-12)

4.1 Central Authority
Animal Health Directorate, Directorate General of Veterinary Services, Ministry of Rural Development and Food

4.2 Geographical and administrative regions where the programme is implemented
The entire country [see also Annex II/Chapter D and Annex III /Table I)

4.3-4.4 Registration of holdings/identification of animals
Individual ear tag/data kept at regional services, uniform identification/registration of animals/holdings soon to be initiated.

4.5 Measures in place as regards notification of the disease
See: "TSEs programme" 2009

4.6 Monitoring

4.6.2 Monitoring in ovine animals

	Estimated no of tests
Ovine animals referred to in Annex III, Chapter A, Part II, point 2 to Reg. (EC) 999/2001	14.500
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 to Reg. (EC) 999/2001	10.400

Ovine animals referred to in Annex III, Chapter A, Part II, point 5 to Reg. (EC) 999/2001	7.000
Ovine animals referred to in Annex VII, Chapter A, point 3.4(d) to Reg. (EC) 999/2001	6.000
Ovine animals referred to in Annex VII, Chapter A, point 5(b)(ii) to Reg. (EC) 999/2001	800

4.6.3 Monitoring in caprine animals

Caprine animals referred to in Annex III, Chapter A, Part II, point 2 to Reg. (EC) 999/2001	12.200
Caprine animals referred to in Annex III, Chapter A, Part II, point 3 to Reg. (EC) 999/2001	10.000
Caprine animals referred to in Annex III, Chapter A, Part II point 5 to Reg. (EC) 999/2001	7.000
Caprine animals referred to in Annex VII, Chapter A, point 3.3(c) to Reg. (EC) 999/2001	6.000
Caprine animals referred to in Annex VII, Chapter A, point 5(b)(ii) to Reg. (EC) 999/2001	800

4.6.4 Discriminatory tests

	Estimated no of tests
Primary molecular testing referred to in Annex X, Chapter C, point 3.2 (c)(i) to Reg. (EC) 999/2001	500

4.6.5 Genotyping of positive ,randomly selected animals and others

Animals referred to in Annex III, Chapter A, Part II point 8.1 to Reg. (EC) 999/2001	500
Animals referred to in Annex III, Chapter A, Part II point 8.2 of Reg. (EC) 999/2001	600
Animals referred to in Annex VII, Chapter A, point 2.3(e) of Reg. (EC) 999/2001	400
Animals referred to in Annex VII, Chapter A, point 5(b) of Reg. (EC) 999/2001	800

4.7 Eradication

4.7.1-4.7.1.1 Measures following confirmation of a BSE case (in small ruminants)
see: "TSEs programme" 2009 (section 12, par 12.1.)

4.7.2-4.7.2.1 Measures following confirmation of a Scrapie case
see: "TSEs programme" 2009 (section 12, par 12.2.)

4.7.2.2. Summary table

Animals to be killed according to the requirements of Annex VII, Chapter A, point 2.3 to Reg. (EC) 999/2001	**25.000**
Animals to be genotyped according to the requirements of Annex VII, Chapter A, Point 2.3 to Reg. (EC) 999/2001	**25.000**

5. Costs

5.1 Detailed analysis of the cost
see: "TSEs programme" 2009 (Annex III, Table II)

5.2 Summary of the costs

5.2.2 Scrapie testing (by estimate)

5.2.2.1 Rapid tests

Purchase of rapid test kits	Specification (Type)	No of units	Cost of Unit in € (average per sample)	Total amount in €	Community funding requested (Yes/No)
Ovine animals referred to in Annex III, Chapter A, Part II, point 2 to Reg (EC) 999/2001	Biorad (TeSeE)	14.500	15,03	217.935,00	YES
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 to Reg (EC) 999/2001	Biorad (TeSeE)	10.400	15,03	156.312,00	YES
Ovine animals referred to in Annex III, Chapter A , Part II, point 5 to Reg (EC) 999/2001	Biorad (TeSeE)	7.000	15,03	105.210,00	YES
Ovine animals referred to in Annex VII, Chapter A, point 3.4 (d) to Reg (EC) 999/2001	Biorad (TeSeE)	6.000	15,03	90.180,00	YES
Ovine animals referred to in Annex VII, Chapter A, point 5(b)(ii) to Reg (EC) 999/2001	Biorad (TeSeE)	800	15,03	12.024,00	YES

Caprine animals referred to in Annex III, Chapter A, Part II, point 2 to Reg (EC) 999/2001	Biorad (TeSeE)	12.200	15,03	183.366,00	YES
Caprine animals referred to in Annex III, Chapter A, Part II, point 3 to Reg (EC) 999/2001	Biorad (TeSeE)	10.000	15,03	150.300,00	YES
Caprine animals referred to in Annex III, Chapter A, Part II, point 5 to Reg (EC) 999/2001	Biorad (TeSeE)	7.000	15,03	105.210,00	YES
Caprine animals referred to in Annex VII, Chapter A, point 3.3(c) to Reg (EC) 999/2001	Biorad (TeSeE)	6.000	15,03	90.180,00	YES
Caprine animals referred to in Annex VII, Chapter A, point 5(b)(ii) to Reg (EC) 999/2001	Biorad (TeSeE)	800	15,03	12.024,00	YES
Total		**74.700**		**1.122.741,00**	

5.2.3 Discriminatory tests

5.2.3.1 Primary molecular tests

	No of units	**Cost of Unit in € (average per sample)**	**Total amount in €**	**Community funding requested (Yes/No)**
Animals referred to in Annex X, Chapter C, point 3.2(c)(i) to Reg (EC) 999/2001	500	139,32	69.660,00	YES
Total	**500**		**69.660,00**	

5.2.4 Genotyping

5.2.4.1

	No of units	Cost of Unit in € (per sample)	Total amount in €	Community funding requested (Yes/No)
Determination of genotype of animals in the framework of the measures laid down by Regulation 999/2001 (includes positive as well as randomly selected animals)	27.300	13,86	378.378,00	YES
Total	**27.300**		**378.378,00**	

5.2.5.2 Compulsory Slaughter

	Specification (Type)	No heads	Amount to be paid per head in €	Total amount in €	Community funding requested (Yes/No)
Compensation for ovine and caprine animals to be killed under the requirements of Annex VII, Chapter A, point 2.3 of Reg. (EC) 999/2001	Eradication measures	25.000	100,00	2.500.000,00	Yes
Total		**25.000**		**2.500.000,00**	

ANNEX I

Epidemiological situation in Greece as regards TSEs in ovine/caprine animals

CHAPTER I

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2002

Target Group		No of samples	Negative	Positive
Sheep	Fallen stock (Age>18 mon.)	466	457	9
	> 18 months old slaughtered for human consumption	23.950	23.904	46
	Clinically Suspect	115	71	44
	TOTAL	**24.531**	**24.432**	**99**
Goats	Fallen stock (Age>18 mon.)	282	282	0
	> 18 months old slaughtered for human consumption	9.210	9.205	5
	Clinically Suspect	13	9	4
	TOTAL	**9.505**	**9.496**	**9**
	TOTAL SHEEP/GOATS	**34.036**	**33.928**	**108**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2003

Target Group		No of samples	Negative	Positive
Sheep	Fallen stock (Age>18 mon.)	793	777	16
	> 18 months old slaughtered for human consumption	22.613	22.564	49
	Contact animals	236	229	7
	Clinically Suspect	163	108	55
	TOTAL	**23.805**	**23.678**	**127**
Goats	Fallen stock (Age>18 mon.)	526	526	0
	> 18 months old slaughtered for human consumption	6.425	6.416	9
	Contact animals	121	121	0
	Clinically Suspect	28	18	10
	TOTAL	**7.100**	**7.081**	**19**
	TOTAL SHEEP/GOATS	**30.905**	**30.759**	**146**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2004

Target Group		No of samples	Negative	Positive
Sheep	Fallen stock (Age>18 mon.)	2.142	2.109	33
	> 18 months old slaughtered for human consumption	6.044	6.040	4
	Contact animals	271	248	23
	Clinically Suspect	206	140	66
	TOTAL	**8.663**	**8.537**	**126**
Goats	Fallen stock (Age>18 mon.)	1.197	1.195	2
	> 18 months old slaughtered for human consumption	2.269	2.269	0
	Contact animals	436	436	0
	Clinically Suspect	83	61	22
	TOTAL	**3.985**	**3.961**	**24**
TOTAL SHEEP/GOATS		**12.648**	**12.498**	**150**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2005

Target Group		No of samples	Negative	Positive
Sheep	Fallen stock (Age>18 mon.)	1.597	1.497	100
	> 18 months old slaughtered for human consumption	4.484	4.471	13
	Contact animals	55	55	0
	Clinically Suspect	397	255	142
	Sheep with VRQ killed	96	93	3
	TOTAL	**6.629**	**6.371**	**258**
Goats	Fallen stock (Age>18 mon.)	916	903	13
	> 18 months old slaughtered for human consumption	3.427	3.425	2
	Clinically Suspect	28	17	11
	Goats >12 months killed for sanitation	214	205	9
	TOTAL	**4.585**	**4.550**	**35**
TOTAL SHEEP/GOATS		**11.214**	**10.921**	**293**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2006

Target Group		No of samples	Negative	Positive
Sheep	Fallen stock (Age>18 mon.)	2.482	2.384	98
	> 18 months old slaughtered for human consumption	6.522	6.504	18
	Contact animals	1.664	1.605	59
	Clinically Suspect	352	238	114
	Sheep with VRQ killed	11	4	7
	TOTAL	**11.031**	**10.735**	**296**
Goats	Fallen stock (Age>18 mon.)	1.397	1.391	6
	> 18 months old slaughtered for human consumption	4.923	4.922	1
	Clinically Suspect	21	18	3
	Goats >12 months killed for sanitation	740	728	12
	TOTAL	**7.081**	**7.059**	**22**
	TOTAL SHEEP/GOATS	**18.112**	**17.794**	**318**

NEW OUTBREAKS IN YEAR 2006 N° 31

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2007

Target Group		No of samples	Negative	Positive
Sheep	Not slaughtered for human consumption	3.252	3.178	74
	Slaughtered for human consumption	5.820	5.809	11
	TSE suspects	167	128	39
	Culled for destruction	2.696	2.475	221
	TOTAL	**11.935**	**11.590**	**345**
Goats	Not slaughtered for human consumption	1.992	1.981	11
	Slaughtered for human consumption	3.279	3.276	3
	TSE suspects	4	3	1
	Culled for destruction	583	540	43
	TOTAL	**5.858**	**5800**	**58**
	TOTAL SHEEP/GOATS	**17.793**	**17.390**	**403**

ANNEX II

Special Directions – Forms used in TSEs monitoring – eradication in small ruminants

CHAPTER A

Prescribed Laboratory Methods for the diagnosis of TSEs

I. Rapid diagnostic tests/immunoassays

a) conformation-dependent immunoassay, BSE antigen test kit (Beckman Coulter InPro CDI kit),

b) sandwich immunoassay for PrP^{Res} carried out following denaturation and concentration steps (Bio-Rad TeSeE test),

c) sandwich immunoassay for PrP^{Res} carried out following denaturation and concentration steps (Bio-Rad TeSeE Sheep/Goat test),

d) chemiluminescent ELISA test involving an extraction procedure and an ELISA technique, using an enhanced chemiluminescent reagent (Enfer TSE Kit version 2.0),

e) microplate based immunoassay for the detection of PrP^{Sc} (Enfer TSE version 3),

f) immunoassay using a chemical polymer for selective capture and a monoclonal detection antibody directed against conserved regions of the PrP molecule (IDEXX HerdChek BSE-Scrapie Antigen Test Kit, EIA),

g) microplate based chemiluminescent immunoassay for the detection of PrP^{Sc} in ovine tissues (POURQUIER'S LIA Scrapie),

h) immuno-blotting test based on a Western blotting procedure for the detection of the Proteinase K resistant fragment PrP^{Res} (Prionics-Check Western Small Ruminants test),

i) microplate based chemiluminescent immunoassay for the detection of Proteinase K resistant PrP^{Sc} (Prionics Check LIA Small Ruminants).

II. Confirmatory TSEs tests

(in use for samples originated from TSEs suspect ovine and caprine animals in order to confirm or rule out suspicion)

a) **Histo-pathological diagnostic methods** and other laboratory methods described in the OIE *Manual of Standards for Diagnostic Tests and* Vaccines (5th Edition 2004), such as **immuno-cyto-chemistry, immuno-blotting** and **demonstration of characteristic SAF fibrils by electron microscopy**.

b) **Additional confirmatory tests** according the guidelines of the Community Reference Laboratory.

III. Further examination of positive scrapie cases for differentiation TSEs

a) Primary molecular testing with a discriminatory immuno-blotting

b) Ring trial with additional molecular testing methods

CHAPTER B

1. **Veterinary Laboratory of Larissa:** Karditsa, Larissa, Trikala, Magnesia.

2. **Veterinary Laboratory of Ioannina:** Ioannina, Thesprotia, Kerkyra, Preveza, Arta, Etoloakarnania.

3. **Institute for Foot-and-Mouth Disease & Exotic Diseases of the Athens Center of Veterinary Institutions (ACVI):** Athens, EastAttiki, WestAttiki, Pireaus, Fthiotida, Fokida, Viotia, Evritania, Evia, Zakinthos, Ilia, Messinia, Achaia, Arkadia, Lakonia, Korinthia, Argolida, Chios, Lesvos, Samos, Kyklades, Dodekanisa, Leukada, Kefallinia, Chania, Rethimno, Iraklio, Lasithi.

4. **Laboratory of Virology of the Thessaloniki Center of Veterinary Institutions**: Evros, Rodopi, Xanthi, Drama, Kavala, Florina, Serres, Kilkis, Thessaloniki, Chalkidiki, Pella, Imathia, Pieria, Kozani, Grevena, Kastoria.

CHAPTER C

Technical instructions for sampling and sample consignment for TSE examination (rapid tests and histopathology).

Laboratory confirmation of TSEs in ovine and caprine animals is achieved either by a rapid test or by a histopathological examination of the suspects' animal's brain stem, where the pathological isomeric of PrP protein is usually located.

The appropriate procedure for the removal, preparation, conservation and consignment of the sample to the competent TSEs laboratory comprises, in order, the following steps:

1. Separation of the head from the rest of the body at the site of the atlantoaxial joint.
2. Inversion of the head, aiming to reveal the foramen magnum.
3. Insertion of the special spoon inside the foramen magnum, close to its dorsalwall edge at appropriate depth, according to the skull size.
4. Rotation of the sampling spoon by 90° on either sides of the vertical axis (clockwise and backwards) for the separation of the existing lateral branches of the cranial nerves.
5. Collection a part of the cerebellum and the whole brain stem by bending the spoon downwards and simultaneous traction outwards.
6. Storage of the sample in an hermetically closed plastic container.
7. Labeling of the container (individual ear-tag no).

It is very important that each sampling spoon should only be used once and the person charged with sampling for TSEs must wear single-use plastic gloves during the entire procedure.

Dispatch of the sample to the competent TSEs laboratory must be conducted on the day of sampling by courier.

CHAPTER D

Prefectures excluded from the testing of samples originated from dead and healthy ovine and caprine animals.

I. **Dead ovine and caprine animals**

1. **Prefecture of Samos**
2. **Prefecture of Kyklades**
3. **Prefecture of Kerkyra**
4. **Prefecture of Zakinthos**
5. **Prefecture of Magnisia (Islands of Sporades)**
6. **Prefecture of Evros (Island of Samothraki)**
7. **Prefecture of Kavala (Island of Thasos)**
8. **Prefecture of Pireaus (Island of Kithira)**
9. **Prefecture of Athens**

II. **Healthy ovine animals**

Prefecture of Athens

III. **Healty caprine animals**

1. **Prefecture of Kerkyra**
2. **Prefecture of Zakinthos**
3. **Prefecture of Athens**
4. **Prefecture of Samos**
5. **Prefecture of Chios**

CHAPTER E

Sample consignment and examination result form (applicable in small ruminants sampled for TSEs)

FROM ……
……
……..**(Pref. Code no)**

TO ……
……
……

PART I: TSEs Surveillance information

I.1 Animal and holding information

Country of birth (if Greece Pref No)		
Breeding country (if Greece Pref No)		
Age (months)		
Eartag number (if available)		
Holding code no (if available)		
Species	Sheep	Goat

I.2 Reason for TSEs examination

01 Random sampling at slaughter house	
02 TSEs clinically suspect	
03 Fallen stock	
04 Animal culled for destruction	

I.3 Sampling information

Date of slaughter / death / killing of the animal (DD/MM/YY)			
Date of sampling (DD/MM/YY)			
Sampling location	Slaughterhouse (Code No)		
	Holding		
	Other		
Sample condition at collection		1 GOOD	2 BAD
Sample signaling			

Person in charge for the laboratory examination…… **Signature**……

PART II: TSEs laboratory examinations and results thereof

II.1 Laboratory examinations

Reception laboratory (code No)		
Date of sample delivery (DD/MM/YY)		
Sample condition	Good	Bad

II.2 Examination results

Test method	Results							
	01 Neg.	02 Pos.	03 Inc.	04 Resis.	05 Suscebt.	06 BSE	07 Scrapie	08 Atyp. Scrapie
1. Rapid test								
2. Immunoblotting								
3. Histopathology			Unsuit.					
4. Immunohistochemist.								
5. Genotyping								
6. Discriminatory test								

II.3 Final result (BOVINES & SHEEP/GOATS)

Date of issue of final result (DD/MM/YY)		
Final Diagnosis	**POSITIVE**	**NEGATIVE**

Person in charge for the laboratory examination…… **Signature**……

CHAPTER F

TSEs Clinical Examination Report

HELLENIC REPUBLIC (Date)
PREFECTURE ....
VETERINARY SERVICE (Ref.No.)
LOCAL VET.STATION ....

Part I : Information about the holding

I.1 Name of owner	
I.2 Address of owner	
I.3 Location of holding	
I.4 Species of animals	
I.5 Number of animals	
I.6 Identification of animals (ear tag numbers)	
I.7 Production orientation	
I.8 Year of establishment	
I.9 Other species (pigs, poultry)	

Part II : Information about the suspect animal(s)

II.1 Species		II.4 Age	
II.2 Number		II.5 Sex	
II.3 Breed		II.6 Ear tag no.	

Part III : Information leading to suspicion of BSE

III.1 Date of notification	
III.2 Source of notification	
III.3 History / Symptoms	
III.4 Date of 1st (clinical) examination	
III.5 Provisional diagnosis (if set)	
III.6 Medical treatment (if administered)	
α) Description of treatment	
β) Duration	
c) Result	
III.7 Date of 2nd (clinical) examination	
III.8 Date of killing	
III.9 Result of laboratory test for TSE	
III.10 Ref.no and date of laboratory Confirmation	

CHAPTER F: (Continued)

Part IV: Findings of clinical examination

	Symptoms / Signs	YES	NO	Date of Onset
Behavioral Changes	Reluctance to movements			
	Unnatural position and bearing of head			
	Pressure of head against objects			
	Hypersensitivity (to light, sound)			
	Grinding of teeth			
	Hypermobility of ears			
	Aggressiveness			
	Muscular tremor			
	Kicking			
Locomotive Disorders	Rotational movement			
	Weakness to stand / Falling			
	Ataxia of fore / hind legs			
	Paresis			
	Paralysis			
Other Symptoms	Loss of body weight			
	Loss of general condition			
	Blindness			
	Skin lesions			
	Itching			
	Other (specify)			

(Name of veterinarian)

.....

CHAPTER G

TSEs Epidemiological Inquiry Report
#

HELLENIC REPUBLIC (Date)
PREFECTURE ....
VETERINARY SERVICE (Ref.No.)
LOCAL VET.STATION..... .....

Part I : Information about the holding

I.1 Name of owner	
I.2 Location of holding	
I.3 Number & Species of animals	
I.4 Ref. no. and date of laboratory confirmation	
I.5 Ref. no. and date of clinical examination report	

Part II : Retrospective epidemiological inquiry – Origin of infection

1: Origin of infected animal(s) (check the appropriate box)

α) Was born in the holding : YES ☐ NO ☐

β) Was introduced into the holding : YES ☐ NO ☐

2 : If **born** in the holding, record in the following Table the progeny, offspring, siblings and animals belonging to the same cohort as the infected animal which are present in the holding.

Relation	Number of animals	Identification of animals
F2 progeny		
F1 progeny		
Siblings		
F1 offspring		
F2 offspring		

3 : If **introduced** into the holding, record in the following Table information pertaining the origin of the infected animal(s).

3.1 Date of entry into the holding				
3.2 Holding / area of origin				
3.3 Are there more animals of same origin ?	YES		NO	
- If YES in 3.3, how many ?				
- If YES in 3.3, which (ear tags) ?				

CHAPTER G: (Continued)

4. In **any case**, record in the following Table information pertaining to feeding practices

4.1	Description of feed used in the holding	
4.2	Origin of feed	
4.3	Conditions & practices of feeding	
4.4	Use of compound feed / pre-mixes / additives ?	YES ☐ NO ☐
	α) If YES in 4.4, plan of manufacture	
	b) If YES in 4.4, proprietary name	
	c) If YES in 4.4, composition	
	d) If YES in 4.4, duration of use	
4.5	Use of animal proteins for feeding of ruminants ?	YES ☐ NO ☐
	α) If YES in 4.5, plan of manufacture	
	β) If YES in 4.5, proprietary name	
	c) If YES in 4.5, composition	
	d) If YES in 4.5, duration of use	
4.6	Are there in the holding animal proteins for feeding other species (pigs, poultry) ?	

Part III : Perspective epidemiological inquiry – Spreading of infection

Record in the following Table information pertaining to possible spreading of infection from the affected holding.

1.1	Recent movements of animals off the holding ?	YES ☐ NO ☐
	α) If YES in 1.1, where to ?	
	β) If YES in 1.1, when ?	
	c) If YES in 1.1, how many ?	
	d) If YES in 1.1, which (ear tags) ?	
1.2	Recent slaughter of animals from the holding ?	YES ☐ NO ☐
	α) If YES in 1.2, when ?	
	β) If YES in 1.2, how many ?	
1.3	Were their by products used for the Production of feed ?	YES ☐ NO ☐
	α) If YES in 1.3, in which processing plan ?	
	β) If YES in 1.3, is the processing plan approved (Decision 362906/13.11.96) ?	
1.4	Recent deaths of animals in the holding ?	YES ☐ NO ☐
	α) If YES in 1.4, was a diagnosis set / which ?	
	β) If YES in 1.4, when ?	
	c) If YES in 1.4, how many ?	

(Name of veterinarian)

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ANNEX III

Animals that will be tested in the framework of the TSEs programme - budget

TABLE I: Minimun number of sheep/goat samples which shall be tested annually in Greece in the framework of active surveillance for Scrapie , broken down per prefecture.

ID	PREFECTURE	Sheep > 18 months for human consumption	Goats > 18 months for human consumption	Dead Sheep >18 months	Dead Goats >18 months
01	AETOLOAKARNANIA	1100	650	1000	650
02	ATTIKI (WEST ATTIKI)	70	80	90	80
03	VIOTIA	400	200	300	200
04	EVIA	300	300	300	300
05	EVRITANIA	120	150	60	60
06	FTHIOTIDA	600	400	200	230
07	FOKIDA	100	150	120	150
09	ATTIKI (EAST ATTIKI)	60	20	50	50
11	ARGOLIDA	140	110	150	130
12	ARKADIA	110	200	140	200
13	ACHAIA	340	400	270	300
14	ILIA	290	150	300	150
15	KORINTHIA	150	100	130	100
16	LAKONIA	140	300	140	300
17	MESSINIA	200	250	200	200
21	ZAKYNTHOS	30	0	0	0
22	KERKIRA	30	0	0	0
23	KEFALLINIA	120	150	50	50
24	LEFKADA	20	30	40	50
25	ATTIKI (ATHENS)	0	0	0	0
29	ATTIKI (PIREAUS)	20	20	50	50
31	ARTA	180	100	200	100
32	THESPROTIA	230	150	230	160
33	IOANNINA	850	230	320	250
34	PREVEZA	270	150	240	160
41	KARDITSA	190	120	200	130
42	LARISSA	900	700	900	700
43	MAGNESIA	160	250	180	260
44	TRIKALA	270	230	290	230
51	GREVENA	100	100	120	100
52	DRAMA	120	170	120	170
53	IMATHIA	80	80	100	100
54	THESSALONIKI	1400	650	520	300
55	KAVALA	140	350	130	350
56	KASTORIA	150	120	90	80
57	KILKIS	600	350	300	150
58	KOZANI	400	180	200	200
59	PELLA	380	170	150	190
61	PIERIA	120	150	100	170
62	SERRES	750	560	300	340
63	FLORINA	140	70	120	90
64	CHALKIDIKI	200	380	150	220
71	EVROS	560	650	270	280
72	XANTHI	190	140	150	150
73	RODOPI	200	320	200	300
81	DODEKANISA	90	200	30	30
82	KYKLADES	100	220	0	0
83	LESVOS	180	320	100	110
84	SAMOS	30	0	0	0
85	CHIOS	30	0	50	40
91	IRAKLIO	330	440	300	400
92	LASITHI	170	200	150	200
93	RETHIMNO	300	400	300	400
94	CHANIA	350	390	300	390
	ΣΥΝΟΛΟ	**14.500**	**12.200**	**10.400**	**10.000**

Notes :The number of samples was calculated taking into account the existing sheep/goat livestock and statistical data of previous years as well as Scrapie surveillance results during the same period.

Prefectures with a very low sheep/goat population (e.g. urbanized areas) or poor transport/communication connection with continental Greece (e.g islands) shall not bear the obligation of sampling dead and healthy animals for Scrapie.Accordingly certain islands have been exempted too, the obligation for fallen stock sampling remaining in place for the rest of the respective prefecture

TABLE II
Cost of implementation of TSEs monitoring programme

Expenditure incurred for the implementation of the programme will be borne by the Regular Budget of the Ministry of Rural Developmement and Food and may be eligible for a Community financial participation by 100% or 50%.

The forecasted annual budget for the implementation of the programme figures in the table that follows.

S/N	Description of Expenditure	Budget (EURO)
(1)	Costs of rapid tests for the examination of ovine animals aged > 18 months slaughtered for human consumption (14.500 samples x 15,03 EURO, by estimation)	217.935,00
(2)	Costs of rapid tests for the examination of caprine animals aged > 18 months slaughtered for human consumption (12.200 samples x 15,03 EURO, by estimation)	183.366,00
(3)	Costs of rapid tests for the examination of dead ovine and caprine animals in the holdings aged > 18 months (20.400 samples x 15,03 EURO, by estimation)	306.612,00
(4)	Costs of rapid tests for the examination of ovine and caprine animals culled in the framework of eradication measures (aged > 18 months) (14.000 samples x 15,03 EURO, by estimation)	210.420,00
(5)	Costs of rapid tests for the examination of ovine and caprine animals dead on the farm or slaughtered for human consumption, after eradication measures have been imposed, (12.000 Samples x 15,03 EURO, by estimation)	180.360,00
(6)	Costs of rapid tests for the examination of ovine and caprine animals dead on the farm or slaughtered for human consumption, (Atypical scrapie) (1.600) Samples x 15,03 EURO, by estimation)	24.048,00
(7)	Subsidization of farmers for the collection and disposal of dead sheep / goats sampled for TSE testing (7.000 animals x 25,00 EURO, by estimation)	175.000,00
(8)	Costs of primary molecular testing for the examination of positive ovine and caprine animals (500 Samples x 139,32 EURO, by estimation)	69.660,00
(9)	Cost of genotyping in sheep from infected holdings as well as TSE positive animals (26.700 samples X 13,86 EURO, by estimation)	370.062,00
(10)	Cost of genotyping in sheep of a random sample annualy (600 samples X 13,86 EURO, by estimation)	8.316,00
(11)	Compensation of farmers due to compulsory killing and destruction of animals in infected flocks (25.000 animals X 100,00 EURO)	2.500.000,00
(12)	Collection, packaging and shipment of samples for rapid tests as well as genotyping (100.400 samples x 8,00 EURO)	803.200,00

Total Forecasted Expenditure	**5.048.979,00**

Requested Community Financial Participation	
{100%, for expenditures (1), (2), (3), (4), (5), (6), (8), (9)} & (10)	**1.570.779,00**
{50%, for expenditures (11)}	**1.250.000,00**

Total Requested Community Financial Participation	**2.820.779,00**