EUROPEAN COMMISSION
HEALTH AND CONSUMERS DIRECTORATE-GENERAL

Director General

SANCO/10632/2013

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

The programme for the monitoring of transmissible spongiform encephalopathies (TSE) and for the eradication of bovine spongiform encephalopathy (BSE) and of scrapie

Greece

Approved* for 2013 by Commission Decision 2012/761/EU

* in accordance with Council Decision 2009/470/EC

1. Identification of the programme

Member state : ELLADA

Disease : Transmissible Spongiform Encephalopathies

Request of co-financing for the year : 2013

1.1 Contact

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2. Description of the programme

(max. 32000 chars) :

TSE eradication and Monitoring consist of activities related to:

A. BSE surveillance-eradication in cattle
B. TSE surveillance-eradication in sheep-goats
C. Breeding programme for Resistance to TSE in sheep

A. BSE surveillance-eradication in cattle

I. Surveillance programme

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

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

1. Bovines slaughtered for human consumption

1.1. All bovine animals over 24 or over 48* months of age which are:

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.

1.2. All bovine animals over 30 or over 72* 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.

2. Bovines not slaughtered for human consumption

All bovine animals over 24 or over 48* 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.

*Commission decision of 17 June 2011No 2011/358/EC (L 161/21 21.6.2011).

Sampling is carried out in accordance with the Annex B. 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 or not slaughtered for human consumption.

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:
i. the suspect animals are originating in countries where indigenous BSE cases were detected,
ii. there is a possibility that the animals may have consumed feed infected with the BSE agent,
iii. they gave birth to animals that were subsequently detected as BSE infected or they are offsprings of such female animals and
iv. during the first year of their life they were reared together with animals that were subsequently diagnosed as BSE cases.

II. Surveillance in slaughterhouses.

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.

2. Checks upon bovine carcasses

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.

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 veterinarian in charge of sanitary inspections until a negative result is available, unless destroyed in accordance with Article 12 of Regulation (EC) No 1069/2009.

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.

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 12 of Regulation (EC) No 1069/2009 apart from material to be retained in conjunction with the records provided for in Chapter B(III).

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 2.4.

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.

3. Management of Specific Risk Materials (SRMs)

SRMs 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.

III. 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.

IV. Services implementing the programme

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

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) 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.
f) 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.

2. The Regional & Local Veterinary Services, which shall:

a) Carry out surveillance and control of TSEs throughout their region.
b) Nominate a responsible coordinator veterinarian.
c) Collect and dispatch appropriate samples to the competent laboratories conducting tests for the detection of the BSE agent in accordance with the provisions of Annex B.
d) Carry out clinical examination of animals prior to slaughter in order to prevent BSE suspect animals from being slaughtered.
e) Supervise removal, identification and disposal of specific risk materials at the slaughterhouses.

f) 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.
g) Implement all measures and actions, provided for in the programme, in case of BSE suspicion or confirmation in a bovine holding.
h) Ensure appropriate implementation of BSE eradication measures.
i) 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.
j) Keep, for seven years, a registrar of all actions taken, and results thereof, in the framework of the programme.
k) 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. The National Reference Laboratory for BSE, as follows:

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).

Contact person :Vaia Balaska
Address: 6th km of Larisa–Trikala Highway., 411 10 Larisa, Greece
Telephone : 0030 2410 617980/617981
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E-mail:tsevetlab@hotmail.com & vetlab@otenet.gr

3.2 Competencies and obligations of the National Reference Laboratory

The National Reference Laboratory is charged with the following duties:

a) Examine samples collected from BSE clinical suspect animals by means of approved rapid tests and appropriate confirmatory tests, such as immuno-blotting (western blot).
b) 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 (histopathological examination, immunocytochemistry, immuno-blotting or demonstration of characteristic fibrils by electron microscopy).
c) 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 C.

d) 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 once a year at least with a view to ensure the diagnostic capacity and credibility of the Authorized BSE Laboratories.
iv. Organization of joint meetings of all Authorized Laboratories once a year at least.
v. Organization of visit to each Authorized Laboratory once a year at least.
e) Participate in ring tests among the National Reference Laboratories of the EU and cooperate with the EU Reference Laboratory for BSE.
f) Be kept updated on international scientific developments in the field of diagnosis and control of TSEs and adapt its diagnostic methods and protocols accordingly.
g) Keep and store the BSE infectious agents isolated or tissues containing them, originating from confirmed BSE cases.
h) 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 monthly basis, and immediately in the case of positive or inconclusive results.
i) 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.

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 C.

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

a) Examine samples collected from bovine slaughtered for human consumption and bovine not slaughtered for human consumption by means of approved rapid BSE tests, in accordance with Annex A Part I.
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) Informs in writing the dispatching Service on the results of the examinations carried out.
d) Cooperate with the National Reference Laboratory in order to achieve the objectives as mentioned in paragraph 3(3.2) point (d).
e) Cooperate with the competent Regional Veterinary Authorities at all levels of the programme's implementation.
f) Keep for seven years, 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 monthly basis, and immediately in the case of positive or inconclusive results.

V. Laboratory examinations

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 A, 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 3.2(b).

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 as defined in Annex A, Part II. 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.

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

B. TSE surveillance-eradication in sheep-goats

I. 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 I, 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 Regional Unit 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 is presented in section 4.6.2 and 4.6.3.
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 to the sample size mentioned in section 4.6.2 and 4.6.3.

II. 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 I, 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 Regional Unit 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 is presented in section 4.6.2 and 4.6.3.

III. Ovine and caprine animals suspect of TSEs infection due to the presence of clinical signs

a) 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.
b) 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.

IV.Genotyping

a) The prion protein genotype shall be determined for each positive TSE case in sheep.
b) Every TSE case found in 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 171shall immediately be reported to the Commission authorities.
c) Except 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 of live animals.
d) The number of sheep to be sampled in accordance with par. c) shall be at least 600 and must be representative of the entire sheep population.

V. Laboratory tests for the ovine and caprine tissues

A. Active surveillance

a) Tissues from ovine and caprine animals sent for laboratory testing from animals mentioned in Chapter I and II (in the framework of the monitoring programme of TSEs in ovine and caprine animals)shall be examined by a rapid test mentioned in Annex I, 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 I, Chapter A, Part II(a) in the reference laboratory nominated for this purpose.
c) If the result of the confirmatory tests is negative or inconclusive the tissues shall be subject to additional confirmatory tests according the guidelines of the Community reference laboratory.
d) If the result of one of the confirmatory test is positive the animal shall be regarded as a positive TSE

case.
e) All the samples which are regarded as a positive TSE 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 I, Chapter A, Part III for differentiation scrapie from BSE (except the atypical scrapie cases).

B. Passive surveillance

a) Tissues originated from TSEs suspect ovine and caprine animals shall be subject to confirmatory tests from those mentioned in Annex I, Chapter A, Part II(a).
b) When the result of the histopathological examination is inconclusive or negative the tissues shall be subject to a further examination by one of the other confirmatory tests.
c) When the result of the rapid test, if this is the first examination method, is inconclusive or positive the tissues shall be subject to another confirmatory test tests from those mentioned in Annex I, Chapter A, Part II(a).
If the tissues subject to histopathological examination and the result is inconclusive or negative, the tissues shall be subject to a further examination by one of the other confirmatory tests.
d) If the result of one of the confirmatory test is positive the animal shall be regarded as a positive TSE case.
e) All the samples which are regarded as a positive TSE case, shall be subjected to further examinations as mentioned in above Part A par. e).

C. 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 I, 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 by courier.

VI.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:

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

a) Carry out the tasks listed in points a,b,c,d,e under Section A, IV, paragraph 4 , as they apply, mutatis mutandis, for TSE surveillance-eradication in sheep-goats.

b) 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.

2. The Regional & Local Veterinary Services:

a) Are responsible for the implementation of monitoring and eradication of the TSEs programme throughout their region.
b) Nominate a responsible coordinator veterinarian.
c) Collect and dispatch the appropriate brain tissue samples to the competent laboratories conducting diagnostic tests for the detection of the TSEs agent.
d) Collect and dispatch samples of blood from sheep of infected flocks for genotyping.
e) Carry out clinical examination of ovine and caprine animals prior to slaughter in order to prevent TSEs suspect animals from being slaughtered.
f) Supervise removal, identification and disposal of specific risk materials at the slaughterhouses.
g) 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.
h) 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.
i) Are responsible for the supervision of the implementation of all measures for the eradication of TSEs.
j) 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.
k) 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.
l) 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.

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

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, primary molecular testing and genotyping.
Contact person: Vaia Balaska
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

3.2.Competencies 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 I, Chapter B.

The National Reference Laboratory is charged with the following duties:

a) Examine all the samples collected from TSEs clinical suspect animals using the confirmatory TSEs tests mentioned in Annex I, Chapter A, Part II(a).
b) Examine all positive samples that are dispatched from the Authorized Laboratories for TSEs by means of confirmatory tests as mentioned above.
c) Examine all the samples which are regarded as positive scrapie case by means of immune-blotting for differentiation classical scrapie from atypical scrapie.
d) Examine all the samples which are regarded as positive scrapie case by means of discriminatory test (CEA) for differentiation scrapie from BSE.
e) 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).
f) Receive and check the reagents of rapid tests and distribute them to the Laboratories authorized for the diagnosis of TSEs.
g) 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 accreditation of the correct implementation of the diagnostic tests for TSEs,
iii. for the organization of ring trials once a year at least 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 once a year at least.
v. for the organization of visit to each authorized Laboratory once a year at least.
h) Participate in ring trials among the National Reference Laboratories of the EU and cooperate with the EU Reference Laboratory for TSEs.
i) Be informed on international scientific developments in the field of diagnosis and control of TSEs and adapt its diagnostic tests and protocols accordingly.
j) Keep the TSEs infectious agents isolated or the tissues containing them, originating from confirmed TSEs cases.
k) 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 monthly basis, and immediately in the case of positive or inconclusive results.
l) 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.

4.The Authorized Laboratories for TSEs diagnosis .

For the purpose of this programme the authorized laboratories for BSE rapid tests listed above (Section A, IV, paragraph 4) are also authorized for the implementation of TSEs rapid diagnostic tests. The geographical areas falling within the scope of competence of the TSE authorized laboratories are listed in Annex I, Chapter B.

The Authorized Laboratories for the diagnosis of TSEs have the following responsibilities:

a) Examine samples collected from:
i. sheep and goats slaughtered for human consumption,
ii. sheep and goats not slaughtered for human consumption,

iii. sheep and goats originated from infected flocks which are killed for destruction, by means of approved rapid tests for the diagnosis of TSEs mentioned in Annex I, Chapter A, Part I.

b)The responsibilities listed in points b,c,d,e,f for the BSE rapid tests authorized laboratories (see Section A, IV, paragraph 4 above) as they apply, mutatis mutandis, for TSE testing in sheep-goats.

C. Breeding programme for Resistance to TSE in sheep

Genotyping of sheep, of both pure as well as mixed breed, will be carried out with a view to facilitate the introduction of resistant sheep in scrapie-affected flocks following implementation of eradication measures. Genotyping results of this programme will also set the basis for the formation of a number of scrapie-resistant flocks through selective breeding. The above programme will be coordinated by the Dept. of Infectious Diseases (Animal Health Directorate, MRDF) in cooperation with the Dept. of Genetic Improvement for Sheep and Goats (Directorate of Animal Products Inputs, MRDF).

3. Description of the epidemiological situation of the disease

(max. 32000 chars) :

BSE tests carried out in Greece during the years 2001-2011 and results thereof

Bovines tested for BSE in 2001	No of samples	Negative	Positive
	17.079	17.078	1
Bovines tested for BSE in 2002	No of samples	Negative	Positive
	23.735	23.735	0
Bovines tested for BSE in 2003	No of samples	Negative	Positive
	26.542	26.542	0
Bovines tested for BSE in 2004	No of samples	Negative	Positive
	28.804	28.804	0
Bovines tested for BSE in 2005	No of samples	Negative	Positive
	31.684	31.684	0
Bovines tested for BSE in 2006	No of samples	Negative	Positive
	32.694	32.694	0
Bovines tested for BSE in 2007	No of samples	Negative	Positive
	30.445	30.445	0
Bovines tested for BSE in 2008	No of samples	Negative	Positive
	33.782	33.782	0

Bovines tested for BSE in 2009	No of samples	Negative	Positive
	25.809	25.809	0
Bovines tested for BSE in 2010	No of samples	Negative	Positive
	23.260	23.260	0
Bovines tested for BSE in 2011	No of samples	Negative	Positive
	22.321	22.321	0

Note: For more informations about the examined bovine samples per target group please see ANNEX D

TSEs tests carried out in Greece (sheep-goats) during the years 2002-2011 and results thereof

SHEEP tested in 2002	No of samples	Negative	Positive
	24.531	24.432	99
GOATS tested in 2002	No of samples	Negative	Positive
	9.505	9.496	9
TOTAL SHEEP/GOATS	No of samples	Negative	Positive
	34.036	33.928	108
SHEEP tested in 2003	No of samples	Negative	Positive
	23.805	23.678	127
GOATS tested in 2003	No of samples	Negative	Positive
	7.100	7.081	19
TOTAL SHEEP/GOATS	No of samples	Negative	Positive
	30.905	30.759	146
SHEEP tested in 2004	No of samples	Negative	Positive
	8.663	8.537	126
GOATS tested in 2004	No of samples	Negative	Positive
	3.985	3.961	24
TOTAL SHEEP/GOATS	No of samples	Negative	Positive
	12.648	12.498	150
SHEEP tested in 2005	No of samples	Negative	Positive
	6.629	6.371	258

GOATS tested in 2005	No of samples 4.585	Negative 4.550	Positive 35
TOTAL SHEEP/GOATS	No of samples 11.214	Negative 10.921	Positive 293
SHEEP tested in 2006	No of samples 11.031	Negative 10.735	Positive 296
GOATS tested in 2006	No of samples 7.081	Negative 7.059	Positive 22
TOTAL SHEEP/GOATS	No of samples 18.112	Negative 17.794	Positive 318
SHEEP tested in 2007	No of samples 11.935	Negative 11.590	Positive 345
GOATS tested in 2007	No of samples 5.858	Negative 5.800	Positive 58
TOTAL SHEEP/GOATS	No of samples 17.793	Negative 17.390	Positive 403
SHEEP tested in 2008	No of samples 18.664	Negative 18.042	Positive 622
GOATS tested in 2008	No of samples 7.652	Negative 7.585	Positive 67
TOTAL SHEEP/GOATS	No of samples 26.316	Negative 25.627	Positive 689
SHEEP tested in 2009	No of samples 21.768	Negative 21.049	Positive 719
GOATS tested in 2009	No of samples 9.552	Negative 9.497	Positive 55
TOTAL SHEEP/GOATS	No of samples 31.320	Negative 30.546	Positive 774
SHEEP tested in 2010	No of samples 24.699	Negative 24.142	Positive 557
GOATS tested in 2010	No of samples 9.539	Negative 9.477	Positive 62

TOTAL SHEEP/GOATS	No of samples	Negative	Positive
	34.238	33.619	619
SHEEP tested in 2011*	No of samples	Negative	Positive
	27.178	26.353	825
GOATS tested in 2011*	No of samples	Negative	Positive
	11.721	11.669	52
TOTAL SHEEP/GOATS *	No of samples	Negative	Positive
	38.899	38.022	877

*NOTE : Numbers for 2011 may have to be revised upwards upon final completion of all cross-checks currently underway within the national TSE database (2011 entries).

Note: For more informations about the examined sheep-goat samples above per target group please see ANNEX II.

4. Measures included in the programme

4.1 Designation of the central authority in charge of supervising and coordinating the departements responsible for implementing the programme

(max. 32000 chars) :

Animal Health Directorate, Directorate General of Veterinary Services, Ministry of Rural Development and Food.

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

(max. 32000 chars) :

A. BSE surveillance-eradication in cattle
The entire 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.

B. TSE surveillance-eradication in sheep-goats
The entire country, except the Regional Units mentioned in Annex I, Chapter D.
These Regional Units 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 reared in these Regional Units is less than 10 % of the total population of sheep and goats reared in the country.

C. Breeding programme for Resistance to TSE in sheep
The entire country (voluntary programme). However priority will be given to continental areas over islands to allow for easier movement of resistant animals where necessary.

4.3 System in place for the registration of holdings

(max. 32000 chars) :

Cattle : Individual ear tag/central data base with animals-holdings, operational throughout the country.

Sheep-goats: Individual ear tag/data kept at regional services. Central data-base with registry of holdings operational throughout the country

4.4 System in place for the identification of animals

(max. 32000 chars) :

Cattle : Individual ear tag/central data base with animals-holdings, operational throughout the country.

Sheep-goats: Individual ear tag/data kept at regional services. Central data-base with registry of holdings operational throughout the country

4.5 Measures in place as regards the notification of the disease

(max. 32000 chars) :

TSEs (BSE & Scrapie) are compulsory and immediately notifiable diseases in accordance with the provisions of the Pres. Decr. 133/1992 (A΄ 66).

4.6 Testing

4.6.1 Rapid tests in bovine animals

	Age (in months) above which animals are tested	Estimated number of animals to be tested	Estimated number of rapid tests, including rapid tests used for confirmation	
Animals referred to in Annex III, Chapter A, Part I, point 2.1, 3 and 4 of Regulation (EC) No 999/2001 of the European Parliament and of the Council	48	4 500	4 525	
Animals referred to in Annex III, Chapter A, Part I, point 2.2 of Regulation (EC) No 999/2001	72	24 000	24 120	
Animals referred to in Annex III, Chapter A, Part I, point 2.1, 3 and 4 of Regulation (EC) No 999/2001 of the European Parliament and of the Council (born in a member state not listed to the Annex of to Com. Implementing	24	150	155	X
Animals referred to in Annex III, Chapter A, Part I, point 2.2 of Regulation (EC) No 999/2001 (born in a member state not listed to the Annex of to Com. Implementing Decision 2011/358/EU)	30	1 000	1 050	X
Other please specify here				X
		Add a new row		

4.6.2 Rapid tests in ovine animals

Estimated population of adult ewes and ewe lambs put to the ram . 9 498 470

	Estimated number of animals to be tested	
Ovine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) No 999/2001	10 000	
Ovine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	10 000	
Ovine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	7 000	
Ovine animals referred to in Annex VII, Chapter A, point 2.3(d) of Regulation (EC) No 999/2001	7 000	
Ovine animals referred to in Annex VII, Chapter A, point 3.4(d) of Regulation (EC) No 999/2001	6 000	
Ovine animals referred to in Annex VII, Chapter A, point 4(b) and (e) of Regulation (EC) No 999/2001	2 000	
Ovine animals referred to in Annex VII, Chapter A, point 5(b)(ii) of Regulation (EC) No 999/2001	800	
Other please specify here		x
	Add a new row	

4.6.3 Monitoring in caprine animals

Estimated population of female goats and female kids mated .	4 092 738

	Estimated number of animals to be tested	
Caprine animals referred to in Annex III, Chapter A, Part II, point 2 of Regulation (EC) No 999/2001	10 000	
Caprine animals referred to in Annex III, Chapter A, Part II, point 3 of Regulation (EC) No 999/2001	10 000	
Caprine animals referred to in Annex III, Chapter A, Part II, point 5 of Regulation (EC) No 999/2001	7 000	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 2.3(d) of Regulation (EC) No 999/2001	7 000	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 3.3(c) of Regulation (EC) No 999/2001	6 000	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 4(b) and (e) of Regulation (EC) No 999/2	2 000	
Caprine animals referred to in Annex VII, Chapter A, Part II, point 5(b)(ii) of Regulation (EC) No 999/2001	800	
Other please specify here		X
	ADD A NEW ROW	

4.6.4 Confirmatory tests ***other than rapid tests*** as referred to in Annex X Chapter C of Regulation (EC) No 999/2001

	Estimated number of tests
Confirmatory tests in Bovine animals	50
Confirmatory tests in Ovine an Caprine animals	1 000

4.6.5 Discriminatory tests

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

4.6.6 Genotyping of positive and randomly selected animals

	Estimated number	
Animals referred to in Annex III, Chapter A, Part II, point 8.1 of Regulation (EC) No 999/2001	1 000	
Animals referred to in Annex III, Chapter A, Part II, point 8.2 of Regulation (EC) No 999/2001	600	

4.7 Eradication

4.7.1 Measures following confirmation of a BSE case

4.7.1.1 Description

(max. 32000 chars) :

A. BSE in cattle

I. 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 raised, the following measures apply:

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. The competent authority may decide that and other holding(s) shall be placed under official control depending on the epidemiological information.
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).
d) Killing of the suspect animal(s) and dispatch of samples to the competent Reference Laboratory for BSE.
e) Destruction of the carcass(es) of the suspect animal(s) in accordance with Article 12 of Regulation (EC) No 1069/2009.
f) Notification to the farmer, in writing, with regard to his/hers obligations.

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).
iii. Killing of the suspect animal(s) and dispatch of samples to the competent Reference Laboratory for BSE.
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 12 of Regulation (EC) No 1069/2009.
vi. Initiation of restrictive measures specified in paragraph 1 in the holding of origin as well as every other holding epidemiologically 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 Section 2(II) par. 2 (2.4 and 2.5).

4.7.2 Measures following confirmation of a scrapie case

4.7.2.1 Description

(max. 32000 chars) :

I. 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:

1. Measures in the holdings

a) An epidemiological inquiry must be conducted 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 TSE 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 TSE 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.The milk and milk products derived from the animals to be destroyed, which were present on the holding between the date of confirmation and the date of the complete destruction of the animals, shall be used only for the feeding of ruminants within the holding. The milk and milk products may be used for the feeding of non-ruminants only within the Greek territory.
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.
The milk and milk products derived from the animals to be destroyed, which were present on the holding between the date of confirmation and the date of the complete destruction of the animals, shall be used only for the feeding of ruminants within the holding. The milk and milk products may be used for the feeding of non-ruminants only within the Greek territory.
iii. Not killing and destruction of the animals identified by the inquiry referred to in points a(ii) and a(iii) where it is difficult the ovine animals be replaced of a known genotype or where the frequency of the ARR allele within the breed or holding is low, or where it is deemed necessary in order to avoid inbreeding, or based on a reasoned consideration of all the epidemiological factors.

4.7.3 Breeding programme for resistance to TSEs in sheep

4.7.3.1 General description

Description of the programme according to the minimum requirements set out in Annex VII, Chapter B of Regulation (EC) No 999/2001

(max. 32000 chars) :

Genotyping of sheep, of both pure as well as mixed breed, will be carried out with a view to facilitate the introduction of resistant sheep in scrapie-affected flocks following implementation of eradication measures. Genotyping results of this programme will also set the basis for the formation of a number of scrapie-resistant flocks through selective breeding. The above programme will be coordinated by the Dept. of Infectious Diseases (Animal Health Directorate, MRDF) in cooperation with the Dept. of Genetic Improvement for Sheep and Goats (Directorate of Animal Products Inputs, MRDF).

4.7.3.2 Summary table

	Estimated number
Ewes to be genotyped under the framework of a breeding programme referred to in Article 6a of Regulation (EC)	35 000
Rams to be genotyped under the framework of a breeding programme referred to in Article 6a of Regulation (EC)	15 000

5. Costs

5.1 Detailed analysis of the costs

(max. 32000 chars) :

A. BSE Surveillance - eradication in cattle

S/N	Description of Expenditure	Budget (EURO)
(1)	Costs of rapid tests for the examination of emergency slaughtered / not healthy at ante mortem examination bovines aged > 48 months (205 tests x 12,40 EURO, by estimation)	2.542,00
(2)	Costs of rapid tests for the examination of emergency slaughtered / not healthy at ante mortem examination bovines aged > 24 months (103 tests x 12,40 EURO, by estimation)	1277,00
(3)	Costs of rapid tests for the examination of dead bovines aged> 48 months (4.320 tests x 12,40 EURO, by estimation)	53.320,00
(4)	Costs of rapid tests for the examination of dead bovines aged>24 months (52 tests x 12,40 EURO, by estimation)	644,80
(5)	Costs of rapid tests for the examination of bovines aged >72 months slaughtered for human consumption (24.120 tests x 12,40 EURO, by estimation)	299.088,00
(6)	Costs of rapid tests for the examination of bovines aged > 30 months slaughtered for human consumption (1.050 tests x 12,40 EURO, by estimation)	13.020,00
(7)	Costs of confirmatory tests other than rapid tests for the examination of positive bovines (50 Samples x 60 EURO)	3.000,00
(8)	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
	Total Forecasted Expenditure for BSE Surveillance - eradication in cattle	1.873.140,00

B. TSE Surveillance-eradication in sheep-goats

S/N	Description of Expenditure	Budget (EURO)

1)Costs of R.T. for the examination of ovine aged>18 months slaughtered for human consumption (10.000 samples x 12,40 EURO)	124.000,00
2)Costs of R.T. for the examination of dead ovine aged>18 months (10.000 samples x 12,40 EURO)	124.000,00
3)Costs of R.T for the examination of ovine culled in the framework of eradication measures aged>18 months referred to in Annex III , Part II, point 5 of Reg 999/2001 (7.000 samples x 12,40 EURO)	86.800,00
4) Costs of R.T for the examination of ovine aged>18 months slaughtered for human consumption in the framework of eradication measures referred to in Annex III , Part II, point 2.3 (d) of Reg 999/2001 (7.000 samples x 12,40 EURO)	86.800,00
5)Costs of R.T. for the examination of ovine dead or slaughtered for human consumption, after eradication measures, referred to in Annex III , Part II, point 3.4 (d) of Reg 999/2001 (6.000 Samples x 12,40 EURO)	74.400,00
6) Costs of R.T for the examination of ovine aged>18 months slaughtered for human consumption or dead or killed in the framework of eradication measures referred to in Annex III , Part II, point 4 (b) and (e) of Reg 999/2001 (2.000 samples x 12,40 EURO)	24.800,00
7)Costs of R.T. for the examination of dead ovine or slaughtered for human consumption (Atypical scrapie)(800 Samples x 12,40 EURO)	9.920,00
8)Costs of R.T for the examination of caprine aged>18 months slaughtered for human consumption (10.000 samples x 12,40 EURO)	124.000,00
9)Costs of R.T for the examination of dead caprine aged >18 months(10.000 samples x 12,40 EURO)	124.000,00
10)Costs of R.T for the examination of caprine culled in the framework of eradication measures aged>18 months referred to in Annex III , Part II, point 5 of Reg 999/2001 (7.000 samples x 12,40 EURO)	86.800,00
11) Costs of R.T for the examination of caprine aged>18 months slaughtered for human consumption in the framework of eradication measures referred to in Annex III , Part II, point 2.3 (d) of Reg 999/2001 (7.000 samples x 12,40 EURO)	86.800,00
12)Costs of R.T for the examination of dead caprine or slaughtered for human consumption, after eradication measures referred to in Annex III , Part II, point 3.3 (c) of Reg 999/2001 (6.000 Samples x 12,40 EURO)	74.400,00
13) Costs of R.T for the examination of caprine aged>18 months slaughtered for human consumption or dead or killed in the framework of eradication measures referred to in Annex III , Part II, point 4 (b) and (e) of Reg 999/2001 (2.000 samples x 12,40 EURO)	24.800,00
14)Costs of R.T for the examination of dead caprine or slaughtered for human consumption,(Atypical scrapie) (800 Samples x 12,40 EURO)	9.920,00
15)Costs of confirmatory tests other than rapid tests for the examination of positive ovine and caprine animals (1000 Samples x 60 EURO)	60.000,00
16)Costs of primary molecular testing for the examination of positive ovine and caprine animals (500 Samples x 175,00 EURO)	87.500,00
17)Cost of genotyping in positive sheep (1.000 samples X 13,75 EURO)	13.750,00
18)Cost of genotyping in sheep of a random sample annualy (600 samples X 13,75 EURO)	8.250,00
19)Cost of genotyping in sheep from infected holdings animals (25.000 samples X 13,75 EURO)	343.750,00
20)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

21) Compensation of farmers due to compulsory slaughter of animals in infected flocks (5.000 animals X 50 EURO)	250.000,00
Total Forecasted Expenditure for TSE Surveillance-eradication in sheep-goats	4.324.690,00
C. Breeding Programme for resistance to TSE in Sheep Cost of genotyping under the framework of the breeding programme number of units (50.000 X 13,75 EURO)	687.500,00
Total Forecasted Expenditure for Breeding Programme for resistance to TSE in Sheep	687.500,00

5.2 Summary of costs

1. Testing in bovine animals (as referred to in point 4.6.1)

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
1.1. Rapid tests	Bio-Rad TeSeE SAP (or other approved method, de	29 850	12.4	370,140	yes	X

Add a new row

2. Testing in ovine and caprine animals (as referred to in point 4.6.2 and 4.6.3)

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
2.1. Rapid tests	Bio-Rad TeSeE SAP (or other approved method, dep	85 600	12.4	1,061,440	yes	X

Add a new row

3. Confirmatory testing (as referred to in point 4.6.4)

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	

3.1. Confirmatory tests in Bovines	BIORAD confirmatory Western Blot (or other approved	50	60	3000	yes	X
				Add a new row		

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
3.2. Confirmatory tests in Ovines and Caprines	BIORAD confirmatory Western Blot (or other approved	1 000	60	60000	yes	X
				Add a new row		

4. Discriminatory testing (as referred to in point 4.6.5)

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
4.1. Primary molecular tests	CEA method discriminatory test (or other approved method, depending on the outcome of tender procedures)	500	175	87500	yes	X
				Add a new row		

5. Genotyping

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
5.1 Determination of genotype of animals in the framework of the monitoring and eradication measures laid down by Regulation (EC) No 999/2001 (as referred to in point 4.6.6 and 4.7.2.2)	TIB MOL BIOL, LIGHTMIX 480HT, susceptibility test set (or other approved method, depending on the outcome of tender procedures)	26 600	13.75	365,750	yes	X
				Add a new row		

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
5.2 Determination of genotype of animals in the framework of a breeding programme (as referred to in point 4.7.3.2)	TIB MOL BIOL, LIGHTMIX 480HT, susceptibility test set (or other approved method, depending on the outcome of tender procedures)	50 000	13.75	687,500	yes	X

				Add a new row		

6. Compulsory culling/slaughter

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
6.1 Compensation for bovine animals to be culled and destroyed under the requirements of Annex VII, Chapter A, point 2.1 of Regulation (EC) No 999/2001 (as referred to in point 4712)	Bovine animals	1 500	1000	1,500,000	yes	x
				Add a new row		

Costs related to	Specification	Number of units	Unitary cost in EUR	Total amount in EUR	Community funding requested	
6.2 Compensation for ovine and caprine animals to be culled and destroyed under the requirements of Annex VII, Chapter A, point 2.3 of Regulation (EC) No 999/2001 (as referred to in point 4722)	Ovine and caprine animals	25 000	100	2,500,000	yes	x
				Add a new row		
6.3 Compensation for ovine and caprine animals to be sent for compulsory slaughter in application of the provisions of Annex VII, Chapter A, point 2.3 (d) of Regulation (EC) No 999/2001 (as referred to in point 4722)	Ovine and caprine animals	5 000	50	250,000	yes	x
				Add a new row		
		Total		*6 885 330,00 €*		

Attachments

IMPORTANT :
1) The more files you attach, the longer it takes to upload them .
2) This attachment files should have one of the format listed here : .zip, jpg, jpeg, tiff, tif, xls, doc, bmp, pna.
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5) Zip files cannot be opened (by clicking on the Open button). All other file formats can be opened.

ANNEX I

CHAPTER A

Prescribed Laboratory Methods for the diagnosis of TSEs

I. Rapid diagnostic tests

a) the sandwich immunoassay for PrP^{Res} detection (short assay protocol) carried out following denaturation and concentration steps (Bio-Rad TeSeE SAP rapid test),

b) the sandwich immunoassay for PrP^{Res} detection with the TeSeE Sheep/Goat Detection Kit carried out following denaturation and concentration steps with the TeSeE Sheep/Goat Purification kit (Bio-Rad TeSeE Sheep/Goat rapid test),

c) the 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-Scrapie Antigen Test Kit, EIA),

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) Methods and protocols as laid down in the latest edition of the OIE Manual

i. the immunohistochemical (IHC)
ii. SAF-immunoblot or OIE approved alternative
iii. the demonstration of characteristic fibrils by electron microscopy
iv. the histopathological examination

b) Additional confirmatory tests according the guidelines of the Community

III. Further examination of positive TSEs 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**: The whole Greek territory.

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

3. **Institute for Foot-and-Mouth Disease & Exotic Diseases of the Athens Center of Veterinary Institutions (ACVI)**: Athens, East Attiki, West Attiki, 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, Magnesia.

CHAPTER C

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

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^{o} 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

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

I. <u>Dead ovine and caprine animals</u>

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

II. <u>Healthy ovine animals</u>

Regional Unit of Athens

III. <u>Healty caprine animals</u>

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

ANNEX II

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING THE YEARS 2002-2011 AND RESULTS THERE OF

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**	**5.800**	**58**
	TOTAL SHEEP/GOATS	**17.793**	**17.390**	**403**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2008

Target Group		No of samples	Negative	Positive
Sheep	Not slaughtered for human consumption	4.538	4.490	48
	Slaughtered for human consumption	9.094	9.068	26
	TSE suspects	442	328	114
	Culled for destruction	4.590	4.156	434
	TOTAL	**18.664**	**18.042**	**622**
Goats	Not slaughtered for human consumption	2.106	2.101	5
	Slaughtered for human consumption	4.187	4.184	3
	TSE suspects	20	12	8
	Culled for destruction	1.339	1.288	51
	TOTAL	**7.652**	**7.585**	**67**
	TOTAL SHEEP/GOATS	**26.316**	**25.627**	**689**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2009

Target Group		No of samples	Negative	Positive
Sheep	Not slaughtered for human consumption	5.370	5.309	61
	Slaughtered for human consumption	11.697	11.660	37
	TSE suspects	318	229	89
	Culled for destruction	4.383	3.851	532
	TOTAL	**21.768**	**21.049**	**719**
Goats	Not slaughtered for human consumption	2.656	2.654	2
	Slaughtered for human consumption	5.809	5.807	2
	TSE suspects	6	6	0
	Culled for destruction	1.081	1.030	51
	TOTAL	**9.552**	**9.497**	**55**
	TOTAL SHEEP/GOATS	**31.320**	**30.546**	**774**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2010

Target Group		No of samples	Negative	Positive
Sheep	Not slaughtered for human consumption	6.881	6.823	58
	Slaughtered for human consumption	13.446	13.397	49
	TSE suspects	37	19	18
	Culled for destruction	4.335	3.903	432
	TOTAL	**24.699**	**24.142**	**557**
Goats	Not slaughtered for human consumption	3.474	3.464	10
	Slaughtered for human consumption	5.274	5.270	4
	TSE suspects	3	3	0
	Culled for destruction	788	740	48
	TOTAL	**9.539**	**9.477**	**62**
	TOTAL SHEEP/GOATS	**34.238**	**33.619**	**619**

NUMBER OF OVINE AND CAPRINE ANIMALS TESTED DURING 2011*

Target Group		No of samples	Negative	Positive
Sheep	Not slaughtered for human consumption	7.288	7.199	89
	Slaughtered for human consumption	9.700	9.659	41
	TSE suspects	32	18	14
	Culled for destruction	10.158	9.477	681
	TOTAL	**27.178**	**26.353**	**825**
Goats	Not slaughtered for human consumption	3.757	3.746	11
	Slaughtered for human consumption	6.641	6.638	3
	TSE suspects	5	5	--
	Culled for destruction	1.318	1.280	38
	TOTAL	**11.721**	**11.669**	**52**
	TOTAL SHEEP/GOATS	**38.899**	**38.022**	**877**

NOTE : Numbers for 2011 may have to be revised upwards upon final completion of all cross-checks currently underway within the national TSE database (2011 entries)**.**

ANNEX A: Prescribed Laboratory Methods for the diagnosis of BSE

I. Rapid BSE diagnostic tests/immunoassays

a) the immuno-blotting test based on a Western blotting procedure for the detection of the Proteinase K- resistant fragment PrPRes (Prionics-Check Western test),

b) the chemiluminescent 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) the microplate-based immunoassay for the detection of PrPSc (Enfer TSE version 3),

d) the sandwich immunoassay for PrPRes detection (short assay protocol) carried out following denaturation and concentration steps (Bio-Rad TeSeE SAP rapid test),

e) the microplate-based immunoassay (ELISA) which detects Proteinase K-resistant PrPRes with monoclonal antibodies (Prionics-Check LIA test),

f) the 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 and IDEXX HerdChek BSE-Scrapie Antigen Test Kit, EIA),

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

h) the 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),

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

II. Confirmatory BSE tests

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

Methods and protocols as laid down in the latest edition of the OIE Manual

a) the immunohistochemical (IHC)
b) SAF-immunoblot or OIE approved alternative
c) the demonstration of characteristic fibrils by electron microscopy
d) the histopathological examination
e) the combination of rapid tests

ANNEX B: Technical instructions for sampling and sample consignment for BSE examination of bovines

Laboratory confirmation of BSE in bovines is achieved either by a rapid test or by an approved confirmatory test**,** 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^{o} 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 a 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 C: Geographical areas falling within the scope of competence of the National Reference Laboratory and the Authorized Laboratories.

REGIONAL UNIT ID	REGIONAL UNIT	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	Ioannina	Ioannina	Larisa
42	LARISSA	Ioannina	Ioannina	Larisa
43	MAGNESIA	Thessaloniki	Thessaloniki	Larisa
44	TRIKALA	Ioannina	Ioannina	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 D: BSE tests carried out in Greece during the years 2001-2011 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**

Bovines tested for BSE in 2008

Target Group	No of samples	Negative	Positive
Clinically Suspect	1	1	0
Emergency slaughter (Age>24 months)	78	78	0
Fallen stock (Age>24 months)	5.150	5.150	0
Aged> 30 months slaughtered for human consumption	28.553	28.553	0
TOTAL	**33.782**	**33.782**	**0**

Bovines tested for BSE in 2009

Target Group	No of samples	Negative	Positive
Clinically Suspect	3	3	0
Emergency slaughter	67	67	0
Fallen stock	3.867	3.867	0
Slaughtered for human consumption	21.872	21.872	0
TOTAL	**25.809**	**25.809**	**0**

Bovines tested for BSE in 2010

Target Group	No of samples	Negative	Positive
Clinically Suspect	0	0	0
Emergency slaughter	22	22	0
Fallen stock	3.318	3.318	0
Slaughtered for human consumption	19.920	19.920	0
TOTAL	**23.260**	**23.260**	**0**

Bovines tested for BSE in 2011

Target Group	No of samples	Negative	Positive
Clinically Suspect	0	0	0
Emergency slaughter	9	9	0
Fallen stock	3.125	3.125	0
Slaughtered for human consumption	19.187	19.187	0
TOTAL	**22.321**	**22.321**	**0**