Eradication: Final report for Transmissible Spongiform Encephalopathies 2018

For each approved annual or multi-annual programme Member States shall submit to the Commission by the 30 April each year an annual detailed technical and financial report covering the previous year. That report shall include the results achieved and a detailed account of eligible costs incurred (Art 14 of Regulation (EU) No 652/2014).

This form is for information only, no submission possible.

ID: 20190912-834ON4XD

Country code: EL

Reporting period

From: 2018 **To:** 2018 **Year of implementation:** 2018

1. Technical implementation of the programme

1.1 Description and evaluation of the evolution of the epidemiological situation, the technical implementation of the activities foreseen under the programme and the cost-effectiveness of the programme.

Brief description of the BSE surveillance programme:

I. 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 48* months of age that have undergone:
– emergency slaughter, in accordance to Point I of Chapter VI of Section I of Annex III of the Regulation (EC) No 853/2004, or
– an ante mortem inspection during which signs of accidents or serious physiological and functional problems or signs in accordance with point 2 of Part B of Chapter II of Section I of Annex I to Regulation (EC) No 854/2004 are observed, are tested for BSE.
1.2. All healthy bovine animals over 30 or 72* months of age, slaughtered normally for human consumption, will be tested for BSE.

2. Bovines not slaughtered for human consumption

All bovine animals over 24 or 48* months of age which have died or been killed neither for human consumption nor in the framework of an epidemic, such as foot-and-mouth disease, are tested for BSE.

*Commission decision No 2009/719/EC

Sampling is carried out in accordance with Annex B. A special derogation has been provided for certain remote islands which have been excluded from sampling of both the above animals subcategories.
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 are killed and sampled after a special decision is 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, take into consideration whether:
i. the suspect animals are originating from 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,
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) Thorough check of all accompanying documents (e.g certificates, movement permits) and animal identification and registration aiming to determine their origin.

2. Checks on bovine carcasses
2.1 All carcasses originating from bovine animals being subject to a BSE rapid test are kept under official supervision. They are not given a health mark, as provided for in Chapter III of Annex I to Regulation (EC) No 854/2004, unless the rapid test produces a negative result.
2.2 All parts of the body of a bovine animal being subject to a BSE rapid test, including the hides, are stored and kept under official control until a negative result is available (a relevant special document is issued by the veterinarian in charge of sanitary inspections). Otherwise, they are destroyed in accordance with the Article 12 of Regulation (EC) No 1069/2009.
2.3 All parts of the body of the above mentioned animals, with a negative result on BSE testing, receive a health mark as provided for in Chapter III of Annex I to Regulation (EC) 854/2004, after the exclusion of the specific risk materials, and are placed into the 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, are 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 in which the BSE agent was detected, as well as the one preceding and the two that follow on the same slaughter line, are destroyed, under the provisions of point 2.4.
2.6 In case the results of a BSE rapid test are delayed due to technical reasons and the carcass is at risk of getting spoiled due to further storage, all parts of the animal's body, including the hide, are destroyed as appropriate.

3. Management of Specific Risk Materials (SRMs)
After their removal from the carcasses, the SRMs are gathered, under the official supervision of the veterinarian in charge of sanitary inspections at the slaughterhouse, counted, weighted (the weight is recorded), stained with an appropriate dye and disposed of 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 the 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.

1. Active surveillance
All bovine samples collected in the framework of the programme are examined using a BSE rapid test, as defined in Annex A, Part I, and are considered negative upon negative results of the rapid test.
If the results are positive, all the samples originating from suspect animals, are forwarded, by the competent laboratory in which the BSE rapid test was carried out, to the National Reference Laboratory for further examinations (confirmatory).

2. Passive surveillance
All BSE suspect animals, on the basis of relevant clinical symptoms, are subjected to at least two (2) different confirmatory tests, as defined in Annex A, Part II. When both confirmatory tests produce negative results the animal is considered negative. In all other cases, the animal sampled shall be considered BSE infected.
During the last seventeen years there has not been detected any positive BSE in cattle.

Brief description of the TSEs in small ruminants programme:

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

I. Animals slaughtered for human consumption
a) A number of random samples from ovine and caprine animals, over 18 months of age, which are slaughtered for human consumption are tested with one of the approved rapid tests for the diagnosis of TSEs, mentioned in Annex I, Chapter A, Part I.
b) The samplings are representative of each Regional Unit of the country and of each season of the year.
c) The sample selection is designed in such a way to avoid the over-representation of any group regarding the origin, species, age, breed, production type or any other characteristic of the animals. If it's possible, multiple sampling in the same flock is avoided.
d) The number of samples tested is presented in section 4.6.2 and 4.6.3.
e) With respect to the number of healthy slaughtered ovine and caprine animals that are sampled on a yearly basis, in case of practical difficulties to reach the sample size, the competent authority may choose to replace a maximum of 50% of its sample size with dead ovine and caprine animals, over the age of 18 months, at a ratio of one to one and in addition to the sample size mentioned in section 4.6.2 and 4.6.3.

II. Animals not slaughtered for human consumption
a) A number of random samples from ovine and caprine animals, over 18 months of age, which have died or have been killed neither for human consumption nor in the framework of an epidemic, such as foot-and-mouth disease,
are tested with one of the approved rapid tests for the diagnosis of TSEs, mentioned in Annex I, Chapter A, Part I.
b) The samplings are representative of each Regional Unit of the country and of each season of the year.
c) The sample selection is designed in such a way to avoid the over-representation of any group as regards the origin, species, age, breed, production type or any other characteristic of the animals. If it's possible, multiple sampling in the same flock is avoided.
d) The number of samples tested is presented in section 4.6.2 and 4.6.3.

III. Animals suspect of TSE infection due to the presence of clinical signs
Ovine and caprine animals showing clinical signs that lead to the suspicion of infection by TSE, undergo the detection procedure for the identification of the infectious agent.

IV. Genotyping
a) The prion protein genotype is determined for each positive TSE case in sheep.
b) All TSE cases found in sheep with genotypes encoding either alanine on both alleles at the codon 136, arginine on both alleles at the codon 154, or arginine on both alleles at the codon 171, are immediately reported to the Commission authorities.
c) Moreover to the positive TSE cases that undergo genotyping, the prion protein genotype is determined in a number of random samples from sheep slaughtered or not for human consumption, as well as from live animals.
d) In accordance with par. c), the number of sheep to be sampled is at least 600 and must be representative of the entire sheep population.

V. Laboratory tests for 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) are 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 are examined with the confirmatory tests mentioned in Annex I, Chapter A, Part II(a), at the reference laboratory nominated for this purpose.
c) If the results of the confirmatory tests are negative or inconclusive the tissues are subject to additional confirmatory tests according to the guidelines of the Community reference laboratory.
d) If the result of at least one of the confirmatory tests is positive, the animal is regarded as a positive TSE case.
e) All of the samples that are regarded as positive TSE cases (as mentioned above) are further examined with immuno-blotting, for the differentiation of classical scrapie from the atypical form, and with a discriminatory test (CEA) mentioned in Annex I, Chapter A, Part III, for the differentiation of scrapie from BSE (except the atypical scrapie cases).

B. Passive surveillance
a) Tissues originating from TSE suspect ovine and caprine animals are examined with one of the confirmatory tests mentioned in Annex I, Chapter A, Part II(a).
b) When the result of the histopathological examination is inconclusive or negative, the examined tissues are subject to further examination with one of the other confirmatory tests.
c) When the initial examination method is the rapid test and the result is inconclusive or positive, the examined tissues are subject to further examination with one of the other confirmatory tests, mentioned in Annex I, Chapter A, Part II(a).
d) If the result of one of the confirmatory test is positive the animal is regarded as a positive TSE case.
e) All of the samples that are regarded as positive TSE cases are further examined, as mentioned above in 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. Authorities responsible for the implementation of the programme and description of their responsibilities

1. The Department of Infectious Diseases, Animal Health Directorate, General Directorate of Veterinary Services, Ministry of Rural Development and Food (MRDF):
a) Co-ordinates and manages the programme throughout the country, regarding both specific provisions thereof and in its entirety.
b) Collects and processes all data obtained in the framework of the programme at national level and informs the competent services of the European Commission as regards its implementation.
c) Creates the appropriate legal basis for the measures to be implemented in accordance with the programme.
d) Secures and allocates funds and resources required for the implementation of the programme.
e) Keeps, for seven years, records of:
i. the number of sheep and goats subject to movement restrictions due to TSE suspicion,
ii. the number and the results of clinical and epidemiological investigations carried out on ovine and caprine populations in relation to TSEs' suspicions,
iii. the number and the results of laboratory tests carried out on ovine and caprine animals when a potential TSE infection could not be ruled out,
iv. all data required for the evaluation of the programme’s implementation.
f) Organizes training courses for the personnel of the authorities involved in the programme’s implementation, providing the most updated knowledge pertaining to diagnosis, interpretation of laboratory results and epidemiology of the disease.

2. The Regional & Local Veterinary Authorities:
a) Are responsible for the implementation of the TSE monitoring and eradication programme throughout the region of their competence.
b) Nominate an official veterinarian as a regional coordinator of the programme.
c) Collect and dispatch the appropriate brain tissue samples to the competent laboratories conducting diagnostic tests for the detection of the TSEs' agents.
d) Collect and dispatch samples of blood from sheep of infected flocks for genotyping.

e) Carry out clinical examinations of ovine and caprine animals prior to slaughter, in order to prevent TSE 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 dispatch of the appropriate brain tissue samples to the competent laboratories for the detection of the TSEs' agents.
h) Issue the appropriate order/s for the implementation of all measures foreseen in the programme in case of a TSE suspicion or confirmation in a sheep or goats holding, such as the restriction of movements of animals and products of animal origin. The Department of Infectious Diseases, in Animal Health Directorate, MDRF, must be notified 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 a TSE case, in order to trace all animals epidemiologically linked to the TSE 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 documentation of the results of the tests conducted in the framework of the programme.
l) Organize informative campaigns addressed to veterinarians, breeders' associations and all other parties involved in the implementation of the programme. The content of these campaigns is about the objectives of the programme 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 (info same as in BSE).

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 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) Recieve 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 Laboratoriy 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 three laboratories, mainly the same as in BSE, are authorized for the implementation of TSEs rapid diagnostic tests.
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) 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) Inform, in writing, the dispatching authority, on the results of the tests carried out.
d) Preserve, for seven years, 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 monthly basis, and immediately in the case of positive or inconclusive results.
e) Cooperate with the National Reference Laboratory in order to achieve the objectives as mentioned in paragraph 3(3.2) point (g).
f) Cooperate with the competent Regional Veterinary Authorities at all levels of the programme’s implementation.

Evolution of the epidemiological situation in Greece from 2001 to 2016:

Bovines
Since 2001, when the only so far positive case of BSE (cattle aged>30 months, slaughtered for human consumption) was confirmed, all samples continue to be negative.
2001: 17.079 tests : 17.078 negative , 1 positive
2002: 23.735 tests all negative
2003: 26.542 tests all negative
2004: 28.804 tests all negative
2005: 31.684 tests all negative
2006: 32.694 tests all negative
2007: 30.445 tests all negative
2008: 33.782 tests all negative
2009: 25.809 tests all negative
2010: 23.260 tests all negative
2011: 22.221 tests all negative
2012: 14.611 tests all negative
2013: 14.875 tests all negative
2014: 14.496 tests all negative
2015: 13.037 tests all negative
2016: 12.105 tests all negative
1017: 12.512 tests all negative
2018: 13.680 tests all negative

Ovine and Caprine Animals
2002: 34.036 tests 108 positives for Scrapie
2003: 30.905 tests 146 positives for Scrapie
2004: 12.648 tests 150 positives for Scrapie
2005: 11.214 tests 293 positives for Scrapie
2006: 18.112 tests 318 positives for Scrapie
2007: 17.793 tests 403 positives for Scrapie
2008: 26.316 tests 689 positives for Scrapie
2009: 31.320 tests 774 positives for Scrapie
2010: 34.238 tests 619 positives for Scrapie
2011: 39.346 tests 939 positives for Scrapie
2012: 31.189 tests 639 positives for Scrapie
2013: 21.273 tests 343 positives for Scrapie
2014: 27.492 tests 594 positives for Scrapie
2015: 24.301 tests 651 positives for Scrapie
2016: 9.419 tests 241 positives for Scrapie

2017: 10.803 tests 272 positives for Scrapie
2018: 10640 tests 236 positives for Scrapie

1.2 Details on the level of achievement of the targets set in the approved programme and technical difficulties.

During the reporting period here has been evidence for a progress concerning the inspection and detection of BSE, referring to the subcategory of suspect bovine animals, that have been resulted negative. Speaking about the level of implementation of the TSE program, there is a decline of the number of animals tested. The main reason is the insufficiency of the manpower at the veterinary departments of the country.
In order to confront the low implementation rates of the program, the central competent authority has planned again to allocate national funds for 2019, (Specifically, eight (-8-) veterinarians will be recruited to support five (5) Directorates of Rural Economy and Veterinary Services (local veterinary authorities), in regional units with increased populations of ruminants, and the other tree (3) will support the authorized Veterinary Laboratories for TSEs. 5 of them have been already recruited.Apart from that, a large number of sheep and goat holdings are located to remote regions, that stand a long distance away from the center of a region. The movements of the veterinarians to these farms, poses difficulties due to the pressure of the time and the fiscal obstacles for the expenses of the fuels. Within our monitoring tasks, the Central Competent Authority is planning to call all implementing entities to a new meeting, in order to pose corrective actions and priorities that will contribute to an improvement in the rates achieved. Additionally, we intent to provoke the stimulation of all involved parties, awakening also the interest of the farmers by organizing regional seminars to representatives of farmers trade unions.

1.3 Epidemiological maps for infection and other relevant data on the disease/activities (information on serotypes involved,...) (Please attach files of data using the PDF attachement feature) Use the textbox below to provide clarifications for the maps you attach, if needed.

a word file named "Evolution of TSEs in Greece 2001-2018" is attached

The declaration form is attached

2. Tables for TSE monitoring outcome of the year

VERY IMPORTANT: Please fill out the following tables with figures corresponding to measures performed during the implementing period (1/1 to 31/12).
NB: the Regulation (EC) No 999/2001 is thereafter quoted as the TSE Regulation.

Table A

	Total positive cases detected during the implementing period		
	Classical cases	**Atypical cases**	**Unknown**
TSE	44	1	204
Scrapie (ovine animals)	37	0	192
Scrapie (caprine animals)	7	1	12

Table B

RAPID TESTS ON BOVINE ANIMALS		
	Age limit applied (in months)	**Number of tests cases**
Risk bovine animals from MSs listed in Annex to Decision 2009/719/EC	48	2,297
Risk bovine animals from MSs NOT listed in Annex to Decision 2009/719/EC	24	7
Healthy slaughtered bovine animals from MSs listed in Annex to Decision 2009/719/EC	72	11,353
Healthy slaughtered bovine animals from MSs NOT listed in Annex to Decision 2009/719/EC	30	12
Suspect animals and confirmatory tests		11
Total		13,680

Table C

Population of ewes and ewe lambs put to the ram in the Member State

8229142

RAPID TESTS ON OVINE ANIMALS	

	Number of tests
Healthy slaughtered ovine animals	3,265
Dead ovine animals	2,589
In the context of measures of control/eradication on holdings affected by TSE as described in Annexes III and VII of the TSE regulation	
Ovine animals from holdings affected by classical scrapie	2,052
Ovine animals from holdings affected by atypical scrapie	0
Ovine animals from holdings affected by BSE	0
Suspect animals	10
Total number of tests	7,916

Table D

Population of goats which have already kidded and goats mated in the Member State

3245549

RAPID TESTS ON CAPRINE ANIMALS	
	Number of tests
Healthy slaughtered caprine animals	1,284
Dead caprine animals	1,228
In the context of measures of control/eradication on holdings affected by TSE as described in Annexes III and VII of the TSE regulation	
Caprine animals from holdings affected by classical scrapie	210
Caprine animals from holdings affected by atypical scrapie	1
Caprine animals from holdings affected by BSE	0
Suspect animals	1
Total number of tests	2,724

Table E

Confirmatory and discriminatory tests	
	Number of tests
Confirmatory tests other than rapid tests on bovine animals	11
Confirmatory tests on ovine and caprine animals	407
Discriminatory tests on bovine animals	0
Discriminatory tests on ovine and caprine animals	44
Total number of confirmatory tests	418
Total number of discriminatory tests	44

Table F

Genotyping tests	
	Number of tests
Positive TSE case	97
Randomly selected ovine animals	162
Animals in scrapie infected flocks	10,733
Breeding programme – ewes	548
Breeding programme – rams	497
Total of number of tests	12,037

Table G

COMPENSATION FOR ANIMALS **In the context of suspicion, control and eradication of TSEs**	
Animals culled and destroyed	**Number of animals compensated**
Bovine animals	0
Ovine animals	3,156
Caprine animals	675
Animals slaughtered	**Number of animals compensated**

Ovine animals	0
Caprine animals	0
Total Bovine	0
Total Ovine + Caprine	3,831

COMMENT / ADDITIONAL CLARIFICATION

In the Tables C and D, the data derive by the computerized database for the TSE/BSE programme

In Table 3, the row for ovine rapid tests contains also tests for caprine as it was not feasible to present separately the tests in ovine and caprine. For this reason the raw for rapid tests in caprine is 0.

in Table 3 we provide information on tests performed (primary molecular tests) for samples obtained by the Greek Veterinary Authorities and the NRL in Cyprus.